

**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 schedule 1, clause 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

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

PLANNING – REPLY

Dated: 17 May 2024



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SIXTH 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 statement of evidence outlines the matters indicated in paragraph [10] of the Council's 23 February 2024 memorandum:
- (a) The detail of my proposed provisions to address the Overseer Version Issue, taking into account the evidence of Mr Scott and Mr Ford filed on 28 March 2024; and
 - (b) My response to the evidence of Dr Drury filed on 3 April 2024 in relation to crop rotation.
- [5] I then address the matters set out at paragraph [11] of the Council's 23 February 2024 memorandum:
- (a) I attach in **Appendix 1** to this supplementary statement the amendments Horizons now proposes to the Decisions Version PC2. I will refer to these as the Council Reply Provisions. To assist the Court and parties, I have set the provisions out in a three-column format: Column 1 presents Decisions Version PC2 (**DV-PC2**) shown as tracked changes onto the Operative One Plan. Column 2 presents the Council Reply Provisions shown as tracked changes onto DV-PC2. The third column presents the amended provisions presented by Mr

Scott¹ (the '**Day V3 Provisions**') also tracked onto DV-PC2. I summarise the key features in paragraph 40 of this statement;

(b) I respond to the key features of the Day V3 Provisions; and

(c) I also address the matters arising from oral evidence and the Court's questions during the resumed hearing in February.

[6] In support of the Council Reply Provisions, I include a s. 32AA evaluation of the alternative PC2 provisions now before the Court (contained in **Appendix 2** to this statement).

[7] Finally, as signalled in my fifth statement of evidence,² I also provide the cross-references for the PC2 provisions as they now appear in the One Plan following Plan Amendment 3 which converts the One Plan into the National Planning Standards format. Plan Amendment 3 made some changes to definitions, to align with the National Planning Standards, but not as relates to IFLU. The substantive content of the provisions at issue in PC2 remains unchanged by Plan Amendment 3. Only the reference numbering is different. I include in **Appendices 3 to 6** some excerpts from Plan Amendment 3 that may assist with understanding the impact of the amendments.

[8] The Court has also requested worked examples of nutrient management plans. Dr Jolly has addressed these examples in her statement of evidence, dated 17 May 2024. I have considered Dr Jolly's worked examples and her draft statement in preparing my own statement of evidence.

C. RESPONSE TO THE OVERSEER VERSION ISSUE

[9] The Council's Reply Provisions retain Table 14.2. The table remains relevant for new IFLU (regulated under Rules 14-3 and 14-4). No party has sought to delete Table 14.2. As explained in my fifth statement of evidence,³ the Table 14.2. CNLMs will become redundant the next time there is an Overseer

¹ Statement of Evidence, Michael Scott, 28 March 2024.

² Fifth Statement of Evidence, Christine Foster, 18 March 2024, para 8.

³ Fifth Statement of Evidence, Christine Foster, 18 March 2024, para 25.

version update. However, they do provide the starting point for the reference file approach I outline below and have relevance in this respect.

- [10] Professor Horne has confirmed there has been no further change to Overseer since the resumed hearing in Levin. The CNLM in Exhibit K1 (relying on version 6.5.4) apply. I have included these CNLMs in the Council Reply Provisions.
- [11] Dr Hanly explained in his statement of evidence⁴ how the Table 14.2 CNLMs are calculated. There are eight CNLMs in Table 14.2 based on eight land use capability (**LUC**) classes. Dr Hanly's calculations used eight sets of Overseer inputs simulating a pastoral farm for each of the LUC classes. Professor Horne provided me the specifications for those eight Overseer farm inputs. He calls these the 'Overseer reference files'. These files do not alter when Overseer versions change. They represent a fixed set of parameters that can be applied consistently as Overseer versions change.
- [12] Plan provisions must be unambiguous and able to be consistently applied to different individual circumstances by different Plan users. In my opinion, the Overseer reference files as described by Professor Horne are specified with precision, are unambiguous, can be easily understood and can be applied consistently. In my opinion, they are therefore appropriate for inclusion in the One Plan. I have recommended including a new definition of 'Overseer reference file' and a Schedule [ZA] containing the description provided by Professor Horne.
- [13] The Council's Reply Provisions reflect the following approach to address the 'Overseer Version Issue':⁵
- (a) Insertion of the Overseer reference files into new Schedule [ZA]. Horizons will hold and maintain Overseer subscriptions for these Overseer files and recalculate the Overseer outputs for each reference file whenever Overseer is upgraded. Horizons may do this internally or on a contracted basis, for example as it has to date with

⁴ Statement of Evidence, James Hanly, 6 October 2023, para 16.16 and reports are contained in Attachment A.

⁵ As described in broad terms in my fifth Statement of Evidence, 18 March 2024.

Professor Horne and Dr Hanly. Horizons will make the updated Overseer outputs publicly available on its website. I note that only the Year 1 CNLMs in Table 14.2 are calculated using Overseer. The Year 5, Year 10 and Year 20 values are calculated using percentage reductions relative to Year 1 as detailed in Schedule [ZA].

- (b) Insertion of a new definition of 'Overseer reference file' which refers to the methodology set out in Schedule [ZA].
- (c) Insertion of an additional clause in Policy 14-5 (clause (h)) requiring IFLU applications that rely on Overseer to demonstrate compliance with the relevant CNLMs using the version of Overseer applicable at the date the application is determined. This will be the reality anyway given that as I understand it, once versions are upgraded, the superseded versions of Overseer are no longer available to users. The additional policy clause also allows that, where the applicable version of Overseer differs from the one used to establish the CNLMs in Table 14.2, the applicable CNLM becomes the Overseer reference file output for the relevant LUC class and year calculated using the same version of Overseer relied on in the application. As noted above, the recalibrated Overseer reference file outputs will be generated by Horizons and made publicly available via the Council's website.
- (d) Amendment of the definition of 'cumulative nitrogen leaching maximum' in the One Plan Glossary to clarify that CNLMs must be calculated using the version of Overseer applicable on the date an IFLU application is determined.
- (e) Insertion of text in the introduction to Table 14.2 stating that where the applicable version of Overseer differs from the one used to establish the CNLMs in Table 14.2, the applicable CNLM limits are the equivalent Overseer reference files, for the relevant LUC class and year calculated using the same version of Overseer relied on in the application).

- [14] The Table 14.2 CNLMs are updated, with reference to the most recent version of Overseer. This provides the basis for ongoing recalibration of the Overseer reference files. This could equally be achieved without Table 14.2 by simply relying on the starting point for the Overseer reference files in Schedule [ZA]. However, as I note elsewhere, Table 14.2 remains relevant for new IFLU and no party has requested deletion of Table 14.2.
- [15] Amendment of RPS Method 5-13 describing the above Overseer reference file approach.
- [16] My approach differs from Mr Scott's (in the 'Day V3 Provisions') in the following respects:
- (a) Mr Scott's provisions do not actually insert the Overseer reference files into the One Plan whereas I intentionally insert them into a One Plan schedule. I consider this is important. As I have noted earlier, the reference files are specified with precision and are unambiguous. A plan user will be able to rely on the reference files to ascertain recalibrated CNLMs when Overseer versions change, without needing to exercise any discretion (it will be a purely mathematical calculation). It is my view that the reference files are sufficiently certain and clear to be relied on as the basis for deriving future recalibrated CNLMs. In Mr Scott's approach, the basis for his 'reference file equivalents' appear to sit outside the One Plan. I expect this could be remedied by including them in a Plan Schedule as I have proposed above.
 - (b) Mr Scott's proposed additional method 5-14 and additional Policy 14-X seem unduly complicated. I have tried to simplify the approach by making amendments to existing PC2 Method 5-13 and Policy 14-5.
- [17] While the Overseer reference files can be specified with certainty, the componentry of future Overseer models can be expected to change. On one view, this could be considered an uncertainty in an approach that allows the Table 14.2 CNLMs to be replaced by values run through a future (unknown) version of Overseer. However, this degree of uncertainty is already inherent

in the One Plan's use of Table 14.2. That is, the updated versions of Overseer that IFLU applicants have had to rely on to demonstrate compliance with Table 14.2 have included differences compared with the version by which the Table 14.2 CNLMs were derived.

- [18] The reference file approach I propose will address future Overseer version changes that result in either an increase or a reduction in nitrogen leaching estimates.
- [19] An issue remains for how the Overseer Version Issue is managed where Overseer-derived nitrogen leaching maximums are specified (as they are) in existing IFLU consents. The same problem arises: there will be differences in Overseer outputs simply because of differences in the upgraded current Overseer version compared with the version available at the time the consent was granted. This is already, potentially, an issue in terms of compliance. For future IFLU consents granted under the Table 14.2 pathway, this will be less of a problem if the conditions of consent provide for application of the Overseer reference file method to address future version changes. This will, at least, allow compliance to be monitored on a like-for-like basis.
- [20] What the Overseer reference file method does not do, cannot do, is address the inherent uncertainties in the Overseer model described by the Overseer and Farm System experts. These issues create uncertainty for compliance monitoring and enforcement of a nitrogen leaching maximum specified as an absolute number. This goes to the issue of why the Ministry for the Environment's advice is to not use Overseer outputs as absolute limits in this way.
- [21] The recalibrated CNLM in PC2 also apply to new IFLU. If the reference file method is included as I propose, the CNLMs will be able to be updated for these activities as well.
- [22] Mr Scott has proposed in his new Method 5-14 that the Council will consider whether a plan change is required to update Table 14.2. My view is that, if the reference file works as intended, this will never be necessary because

the applicable CNLM will always be up to date and based on the current version of Overseer.

D. CROP ROTATION

[23] The evidence presented by Horticulture NZ has raised questions about how the One Plan accommodates crop rotation (to maintain soil structure, reduce soil erosion and reduce plant diseases and pests). DV-PC2 inserted a new definition for 'crop rotation' in response to submissions and evidence by CVG interests at the Council hearing. Dr Drury's first statement of evidence⁶ and reply evidence⁷ propose amendments to the definition of 'crop rotation'. I also proposed an amendment to the definition in my statement of reply evidence.⁸ I no longer consider my proposed amendment to be necessary. I support the definition of 'crop rotation' proposed by Dr Drury but my reasons for doing so differ from Dr Drury's.⁹

[24] The importance of crop rotation was recognised by me and Horizons advisers in discussions with growers and industry representatives at pre-hearing meetings held before the Council hearing. The provisions suggested by CVG interests were explicitly built into PC2 in the manner shown in DV-PC2. These were supported by Horticulture NZ's planning witness (Mr Hodgson) at the time. It was on this basis that Horizons understood the matter was settled. However, it has become apparent that there is a difference of view about how the DV-PC2 provisions work.

[25] In my opinion, the issue (and the solution) does not sit within the definition of 'crop rotation'. It arises from the One Plan's definition of whether an IFLU is categorised as 'existing' or 'new'. The starting point is Policy 14-5 (not the definition of 'crop rotation'). Policy 14-5 (a) identifies CVG as an IFLU. Policy 14-5(b) states that:

'The intensive farming land^ uses identified in (a) must be regulated where:

⁶ Statement of Evidence, Charlotte Drury, 13 October 2023, para 32.

⁷ Statement of Reply Evidence, Charlotte Dury, 3 April 2024, paras 4-7.

⁸ Statement of Reply Evidence, Christine Foster, 13 November 2023.

⁹ Joint Witness Statement of Planning Experts, 1 May 2024, Row 2, pg 4.

- (i) They are existing intensive farming *land*[^] uses (i.e. established prior to the date specified in Table 14.1 on which Rule 14-1 had legal effect³), in the targeted *Water Management Sub-zones*^{*} identified in Table 14.1.
- (ii) They are new intensive farming *land*[^] uses, in any *Water Management Sub-zone*^{*} 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*^{*4}).’

[26] Footnotes 3 and 4 in Policy 14-5 (b) explain that the date after which CVG is considered to be ‘new’ is 9 May 2013. CVG established before 9 May 2013 is ‘existing’ and subject to Rules 14-1, 14-2 and 14-2A. CVG established on or after 9 May 2013 is ‘new’ and subject to Rules 14-3 and 14-4. For this purpose, I do not consider that the use of land for CVG has to be occurring on the land on 9 May 2013. The definition of CVG contemplates the whole rotational cycle including any pasture phase. In my view, to qualify as ‘existing’, CVG must demonstrate that the relevant land has been used for CVG as part of a whole rotational cycle at some point prior to 9 May 2013. This may require reliance on historical aerial photographs and farm records. I have discussed my understanding of ‘new’ and ‘existing’ with the Horizons Consent Team and they have confirmed my understanding is correct.

[27] For completeness, the definition of ‘commercial vegetable growing’ means:

using an area of land greater than 4 ha for producing vegetable crops for human consumption. It includes the whole rotational cycle, being the period of time that is required for the full sequence of crops, including any pasture phase in the rotation. Fruit crops, vegetables that are perennial, dry field peas or beans are not included.

- [28] My approach mirrors the approach explained by Mr Hodgson in his evidence for Horticultur New Zealand at the Council hearing.¹⁰ He helpfully stepped through his understanding of how the provisions are intended to apply. The first step is to determine whether land that is identified in an application for CVG is 'new' or 'existing'. This determines the consent pathway and is a separate and pre-requisite step. Also, the activity being regulated is IFLU, not 'crop rotation'. In my opinion, the One Plan is clear on this point.
- [29] Where an application involves areas of existing and new CVG, it can be applied for in one application in my view. However, the relevant rules for new IFLU are Rules 14-3 and 14-4. The standards of Rule 14-3 require compliance with the Table 14.2 CNLMs. Dr Jolly's evidence is that potato and onion crop rotations will likely comply with Table 14.2 but all other green vegetables will likely fail to comply and therefore, where they are new they will require consent as a restricted discretionary activity under Rule 14-4.
- [30] As I signalled earlier, the definition of 'crop rotation' is not the starting point for the Table 14 rules and in my view, it does not override or bypass the new/existing rule structure. The words in the DV-PC2 definition of 'crop rotation' which refer to crop rotation 'across changing land parcels' do not prevail over or negate the definition of new and existing as relates to CVG. I am comfortable withdrawing my suggested amendment to the definition because it is my view that the wording of the definition makes no difference to how the One Plan categorises CVG as 'new' or 'existing'.
- [31] Dr Drury has proposed an additional amendment in her reply evidence,¹¹ inserting the following words into the activity description in Rule 14-4:

For commercial vegetable growing, the growing area must not exceed the baseline growing area within a water management sub-zone listed in Table 14-1, while allowing for crop rotation.

¹⁰ Mr Hodgson's evidence remains available on the Council's website. I confirmed my understanding by re-reading his evidence in preparing this statement.

¹¹ Statement of reply evidence, Charlotte Drury, 3 April 2024, para 10.

- [32] I do not consider this additional amendment addresses the issue either. That is because (for the reasons I have explained above) these words cannot override the categorisation of 'new' and 'existing' in Policy 14-5.
- [33] I heard Mr Clarke's evidence on the importance of included leased land into CVG growing rotations, including his point that this will often need to be arranged quickly. I accept that there will be situations where land suitable for leasing may never have been used as part of a CVG rotation at any time prior to 9 May 2013 and may, therefore, not qualify as 'existing'. I agree that PC2 does not provide a seamless response to this issue. However, PC2 did not propose any change to the categorisation of IFLU as 'new' and 'existing' or to Rules 14-3 or 14-4 and to the best of my knowledge, there is no appeal point that challenges these aspects of DV-PC2.
- [34] I do not highlight the above constraints to be unhelpful. I agree a solution needs to be found. My view is that part of the solution will require some change to Policy 14-5, which was not contemplated by PC2, and that further work will be required.
- [35] Dr Gillian Holmes' evidence acknowledged the possibility of localised environmental effects at a water management sub-zone scale.¹² In my opinion, further work is required to consider the impact of such localised effects. This would include testing Dr Holmes' suggestion that these effects can be addressed through freshwater farm plans, and to derive wording for a policy or consent assessment matter to address the effect(s) and engaging with potentially interested and affected parties. The suggestions by Horticulture NZ witnesses on this point have come relatively late in the PC2 process and there has not been a sufficient opportunity to undertake this work. I am aware the appellants currently oppose any amendments that would allow CVG to expand onto land not previously part of a CVG rotation.

E. COUNCIL REPLY PROVISIONS

- [36] DV-PC2 endorsed the Council's approach that there needs to be a workable alternative pathway to Table 14.2. My view remains that this is necessary

¹² Statement of evidence, Gillian Holmes, 13 October 2023, para 72.

because, without one, there is significant uncertainty for IFLU applicants, the Council and the community about the extent of nitrogen leaching required of the remaining unconsented existing IFLU. The resulting uncertainties in relation to water quality outcomes, business confidence and social impact have been canvassed in the evidence of others but combine, in my opinion, as a poor outcome. I have read some of the background to the One Plan in relation to IFLU and I do not consider this is an outcome intended by the One Plan.

[37] The intention of RPS Policy 5-8 is that compliance with the Table 14.2 CNLMs would be achievable on most farms. I note:

- (a) Professor Horne's evidence is that, even if dairy farmers make significant reductions in nitrogen leaching, the chances of them complying with the Year 20 CNLMs is 'very small'. On his analysis, approximately 41% to 49% of IFUs cannot meet their Year 20 CNLM.¹³ With the passage of time, the Year 20 CNLM have now become more relevant for IFLU consents granted in the foreseeable future under PC2. Year 20 is between 2034 and 2036, noting that there is no consent duration limit proposed for consents under Table 14.2. Those considered in 2024 would need to demonstrate compliance with the Year 20 CNLM.
- (b) Dr Jolly's evidence is that, apart from potato and onion crop rotations, all other vegetable growing systems will not achieve compliance with Table 14.2 (even if it is possible to find a way to apply Overseer to vegetable growing systems). The evidence of Mr Clarke and Mr Ford confirms this. No credible evidence refutes this.

[38] The one point of agreement between the Council's proposed approach and Mr Scott's (the appellants') latest proposal is that there needs to be a consent pathway for existing IFLU that cannot comply with Table 14.2. Mr Scott made a material change in his latest Day V3 Provisions by deleting the requirement that all existing IFLU must, at some point in the life of their

¹³ Sixth Statement of Evidence, David Horne, 17 May 2024, Table 1.

consent, achieve full compliance with Table 14.2. This is an important starting point in understanding the differences in approach between the Council's and appellants' approaches. Both the Council Reply Provisions and Mr Scott's revised (Day V3) provisions allow exceedances of Table 14.2. The difference between them lies not in *whether* there are exceedances but in how those exceedances are *regulated*.

[39] Conceptually, the Council's approach is to allow exceedances of Table 14.2 as exceptions, contemplated by RPS Policy 5-8 and specified in Policy 14-5.

[40] I summarise below the key features of the amendments I propose in the Council's Reply Provisions and how these differ from the appellants' Day V3 Provisions. I discuss the rationale for some particular aspects of my proposal in the sections following this potted summary:

Council Reply Provisions	Day V3 Provisions
The Policy 5-8 'policy roadblock' is addressed by: ~ amending 5-8 (ii) to allow for exceptions in 5-8 (iia); and ~ inserting two new clauses that set out the two circumstances where exceptions from Table 14.2 are allowed (clause (iia) where leaching loss is reduced to the maximum extent reasonably practicable in the shortest feasible timeframe and (iib) to allow transition to non-intensive land use);	The Policy 5-8 'policy roadblock' is addressed by: ~ amending 5-8 (ii) to require that IFLU '<u>generally</u>' achieve Table 14.2; and ~ inserting a new 5-8 (iia) that sets out the three circumstances under which consents for exceptions from Table 14.2 may be granted; ~ (1) to enable transition to non-intensive land use; ~ (2) where the exceedance of Table 14.2 is due to model over-calculation of nitrogen loss; and ~ (3) where a trajectory of staged reductions is demonstrated; ~ inserting in Policy 5-8 additional matters for consideration in determining individual IFLU applications that exceed Table 14.2; ~ requiring IFLU that proposes to transition to non-intensive land use to be considered by consent on the same basis as other exceedances of Table 14.2.

Council Reply Provisions	Day V3 Provisions
The policy framework and rules provide for exceptions from Table 14.2:	The policy framework and rules provide for exceptions from Table 14.2:
~ the NRAT and specified reduction pathways (-20% pastoral and -35% CVG) as controlled activities; and ~ the option of discretionary activity pathway where none of the Table 14.2, NRAT or specified 20% (pastoral) and 35% (CVG) reductions are able to be achieved; ~ a bespoke discretionary activity pathway is included for IFLU transitioning out of intensive land use (recognising that they need time to exit the sector).	~ All exceedances of Table 14.2 are provided for as discretionary activities.
Policy 5-8 is amended to clarify that the regulation of existing IFLU is to <i>contribute to</i> achieving the One Plan water quality improvement strategies.	Policy 5-8 requires the regulation of existing IFLU to <i>achieve</i> the water quality improvement strategies.
The Overseer Version Issue is addressed by incorporating a reference file recalibration method into the One Plan methods, policies, rules and definitions.	The Overseer Version Issue is addressed using a reference file recalibration method that is somewhat more complex and appears to sit outside the One Plan.
The provisions require the implementation of GMPs, BMPs and additional measures to achieve reduced nitrogen reduction.	Amendments are made that de-emphasise the role of GMPs and BMPs.
Table 14.2 is recalibrated to the most recent Overseer version.	Table 14.2 is recalibrated to the most recent Overseer version.
Policy 14-6 (c) limits consent duration to ten years for all exceptions from Table 14.2 (the NRAT, % reduction controlled activities and for discretionary activity exceptions but not for Table 14.2 consents).	Policy 14-6 (c) limits consent duration to ten years for the discretionary activity exceptions from Table 14.2 (not for Table 14.2 consents).
The Policy 14-6 considerations for determining existing IFLU consents are rationalised: ~ there are 5 matters to be given particular regard and 8 matters to be given regard	The Policy 14-6 considerations for determining existing IFLU consents are rationalised: ~ there are 7 listed matters to be considered, taken into account or given particular regard when making

Council Reply Provisions	Day V3 Provisions
when making decisions on existing IFLU; ~ there are 6 listed matters to be implemented through conditions of consent (4 for IFLU transitioning to a non-intensive land use)	decisions on existing IFLU (although I note that Mr Scott has accepted in conferencing that two additional matters are relevant); ~ there are 6 listed matters to be implemented through conditions of consent.
New definitions and schedules are inserted to support the NRAT as well as definitions to support the % reduction pathways.	The definitions to support the % reduction pathways are deleted.

Why is there a need to amend RPS Policy 5-8?

- [41] Her Honor asked at the hearing why it is necessary to amend RPS Policy 5-8. The operative One Plan wording of Policy 5-8 requires (in (5-8 (a) (ii)) that existing IFLU must be regulated in targeted water management sub-zones to achieve the nitrogen leaching maximum specified in clause (i) of Policy 5-8. These are the CNLMs in Table 14.2. Operative Policy 5-8 does not provide for exceptions (I note that even though Policy 14-6 did provide for two limited exceptions and Rule 14-2 allows for exceedances of Table 14.2), these are not supported by Policy 5-8). If Policy 5-8 is unchanged, it will perpetuate the policy 'roadblock' that PC2 is intended to address.
- [42] To address this, I propose retention of the amendments proposed in DV-PC2 to clause 5-8 (ii) which provide explicitly for the exceptions specified in (iia) and (iib) where they are regulated in a particular way.
- [43] Mr Scott's provisions also amend Policy 5-8 to provide for exceptions to the Table 14.2 CNLMs. He has proposed to pave the way for these by softening Policy 5-8 (ii) by inserting the requirement that existing IFLU 'generally' achieve the Table 14.2 CNLMs. He also proposes inserting into clause 5-8 (iia) provision for consenting existing IFLU that do not comply with the Table 14.2 CNLMs.
- [44] Other amendments to Policy 5-8 made by the Hearing Panel in DV-PC2 include changes to (a) (i) (C) and (D) which I have retained:

- (a) clause 5-8 (a) (i) (C) was amended to read that the Table 14.2 CNLMs would be 'achievable' on most farms using GMPs. I recall that there was considerable debate at the Council hearing about which word is more appropriate and that 'achieved' inferred that the Table 14.2 CNLMs would be required to be achieved, rather than being theoretically achievable. The Hearing Panel settled on 'achieved' and I have retained the DV-PC2 word ('achieved').
- (b) clause 5-8 (a) (i) (D) was amended to reflect the evidence to the Council hearing that a combination of GMPs and BMPs would likely be necessary to enable some IFLU to comply with the Table 14.2 CNLMs. That remains the case as I understand it and I have retained the reference to BMPs. Where exceedances of Table 14.2 are considered, it may be that GMPs, BMPs and additional measures (for example 'edge-of-field' technologies or off-site mitigation) may be necessary to reduce nitrogen leaching to the maximum practicable extent. For that reason, I have used the language 'GMPs, BMPs (and additional measures where necessary)' when referring in 5-8 (iia) to the effort that IFLU need to make in pursuing the exceptions pathways for exceedance of Table 14.2.

Providing for Exceedances of Table 14.2

- [45] As I have already noted, both the Council Reply Provisions and the Day V3 provisions provide for exceedances of Table 14.2. The difference being how those exceedances are regulated. One of the reasons Mr Scott prefers his amended provisions is because he considers they preserve the One Plan approach and the purity of the 'natural capital' approach. However, it is notable that Mr Scott's proposed provisions also provide for exceptions from Table 14.2. It is my view that this is consistent with the intent of the One Plan. However, even if putting that to one side, Mr Scott's approach does not itself preserve the purity of the 'natural capital' approach.
- [46] The key difference is that the Horizons approach specifies limits on nitrogen leaching for most of the IFLU that do not meet Table 14.2. That is done by specifying that they must have a low risk of nitrogen leaching (under the

NRAT) or achieve a minimum 20% or 35% reduction to qualify as a controlled activity. I explain the detail of this later in this statement.

- [47] Mr Scott's provisions provide for exceedances of the Table 14.2 CNLMs but the extent of exceedance is not explicitly limited by the policy framework. Mr Scott's proposed Policy 14-6 includes guidance that a 35% reduction in nitrogen leaching by CVG may be viewed favourably, but no guidance is provided on the size of required reduction for pastoral IFLU. Pastoral IFLU comprise the majority of unconsented IFLU. Mr Scott's proposed Policy 14-6 (b) (iii) requires a '*trajectory of staged reductions in nitrogen leaching*' but does not specify the quantum, steepness or timing of that trajectory of reduction.
- [48] Mr Scott's view is¹⁴ that his provision 'provide the necessary policy support to decline applications where the land use is 'fundamentally ill-suited to the geophysical conditions of the land'. I do not read the seven considerations in his Policy 14-6 (ba) as necessarily driving that outcome. They are not worded in a directive way in my opinion. They do not seek to 'avoid' or even 'minimise'.
- [49] The last of Mr Scott's seven considerations (applying to CVG) is to 'have particular regard' where CVG will achieve a minimum 35% reduction in nitrogen leaching. The clause is a little confusing and the words do not, in my opinion, explicitly require a 35% reduction or prevent reductions less than 35%.
- [50] Professor Horne was asked to estimate how many pastoral IFLU would need to be considered as discretionary activities. Noting the difficulty of predicting with certainty how many dairy IFLU would be unlikely to achieve a 20% reduction in nitrogen leaching, Professor Horne estimates it is between 7% and 20% of dairy IFLU.¹⁵ This is the proportion of existing IFLU that would require a discretionary consent under the Council Reply Provisions. It is my opinion that these IFLU could not conceivably secure a consent under the

¹⁴ Supplementary Statement of Evidence, Michael Scott, 28 March 2024, para 4.6.

¹⁵ Paragraphs 31 and 32 of the Supplementary Statement of David Horne dated 17 January 2024.

policy framework I propose without making a substantial reduction in nitrogen leaching, but the outcome (whether consent is granted or declined and what reduction might be required) is uncertain.

[51] Under Mr Scott's provisions, there is no certainty at all (in my view) as to the extent of nitrogen leaching reduction required of the more than half of IFLU¹⁶ in the targeted water management sub-zone that cannot meet Table 14.2. The uncertainty is less under the Council Reply Provisions, in my view, because the policy framework is 'tighter' than Mr Scott's in relation to specifying a % reduction for controlled activities, and because the number of IFLU requiring discretionary activity consent is less. The uncertainty associated with discretionary activities affects 7%-20% under my proposal and affects over 50% under Mr Scott's (i.e. it is all IFLU that cannot meet Table 14.2, which Professor Horne estimates is over 50%). For the number of remaining unconsented IFLU presently within the priority catchments, this difference is a material one in my view.

[52] As I have explained, it is my view that the exceptions provided for in the Day V3 Provisions are only weakly constrained by the policy framework. There is no basis for concluding that the consenting of exceptions under the Day V3 Provisions will result in nitrogen leaching reductions that mirror those achievable from strict enforcement of Table 14.2 (or even any of the discretionary activity scenarios the Council modelled). It is not possible currently to determine what extent of nitrogen leaching reduction would be achieved by the Day V3 Provisions.

The use of Overseer outputs as absolute numbers.

[53] I stated in my first statement of evidence¹⁷ my view that all of the consent pathways for existing IFLU in Chapter 14 rely on the achievement of absolute nitrogen leaching limits derived using Overseer. In part D of my Statement

¹⁶ Professor Horne estimates that less than half of existing dairy IFLU will be able to comply with the Year 20 CNLM in Table 14.2 even if they adopt measures that reduce nitrogen leaching by up to 20%. See Table 1 of this Sixth Statement of Evidence, 17 May 2024.

¹⁷ Statement of Evidence, Christine Foster, 7 October 2023, para 18.

of Reply¹⁸ I discuss the reasons why Horizons embarked on investigating the NRAT as an alternative to absolute Overseer-derived limits. This includes my concern that any Overseer-derived nitrogen leaching estimate provided to support an IFLU application would become part of the application and, thereby, a limit imposed on the consent.¹⁹ I have also explained my view that even the percentage reduction consent pathways could be seen as imposing an absolute limit on an IFLU consent. More recently, in my fifth Statement of Evidence²⁰ I discussed the impact of Overseer version updates on nitrogen leaching limits expressed as absolute numbers.

[54] My view remains that the Table 14.2 CNLMs are absolute numbers. Compliance with this absolute limit is required to be demonstrated, using Overseer, for an existing IFLU to qualify as a controlled activity under Rule 14.1 (or Rule 14.3 for new IFLU). The Overseer and Farm Systems Experts (with the exception of Dr Parlato) agreed at conferencing on 2 February 2024²¹ that Overseer should not be used as absolute numbers.

[55] The Joint Witness Statement of the Overseer and Farm Systems Experts records that 'given the difficulty of modelling a complex process and the variability of measurements, at this point it is not possible to quantify the error Overseer predictions for an individual farm'.²² All of the Farm Systems Experts agreed that 'there is a likelihood that some farms will be under and over the measured N loss'.²³ They were unable to confirm by what margin some farms might be over or under. In answer to Question 5 in the JWS, the Farm Systems Experts agreed that the percentages in Table 1 of Dr Tavernet's will say statement do not estimate the accuracy in Overseer predicting nitrogen losses from individual farms.²⁴ Dr Tavernet noted that all Table 1 shows is the variability or uncertainty in the key inputs of climate

¹⁸ Statement of Reply Evidence, Christine Foster, 13 November 2023, pages 7-18.

¹⁹ Statement of Reply Evidence, Christine Foster, 13 November 2023, paras 87 to 91.

²⁰ Fifth Statement of Evidence, Christine Foster, 18 March 2024, para 22, 31 and 32.

²¹ Answer to Question 10 of the Joint Witness Statement of Overseer and Farm System Experts dated 2 February 2024, pages 9-10.

²² Joint Witness Statement, Overseer and Farm System Experts, 2 February 2024, page 5.

²³ Joint Witness Statement, Overseer and Farm System Experts, 2 February 2024, page 6.

²⁴ Joint Witness Statement, Overseer and Farm System Experts, 2 February 2024, pages 7-8.

and soils and not the accuracy of Overseer predictions of actual nitrogen loss. The experts agreed with Dr Tavernet's list of matters that define the veracity of model predictions,²⁵ being: accuracy, precision, bias and uncertainties.

- [56] I had understood that Overseer modelling outputs had a margin of uncertainty of 20%-30% but I do not understand this is be supported by the Farm Systems experts and does not necessarily reflect all four considerations (accuracy, precision, bias and uncertainties).
- [57] Even without a precise quantification of the accuracy, precision, bias and all other uncertainties, the Farm Systems Experts agree there is potential uncertainty about whether the Overseer-derived nitrogen leaching loss rate for an individual IFLU can be confidently said to be compliant with, or to exceed, the Table 14.2 limit. In my opinion, this creates difficulties where Overseer-derived limits are used as a drafting gate in plan rules.
- [58] The use of Overseer outputs is also potentially problematic for compliance monitoring and for enforcement (where the CNLM, or the Overseer-derived nitrogen leaching limit is specified as an absolute number in a condition of consent) for the obvious reason that there is a margin of uncertainty around that number. These limits will nevertheless need to be specified within consent conditions, and reflected in the NMPs for the IFLU activities.
- [59] Mr Scott suggests that where nitrogen leaching reductions are required by the conditions of consent for a discretionary activity IFLU, these reductions should be specified in conditions as percentage reductions rather than as a (reduced) absolute number.²⁶ Mr Scott is attempting to overcome the issue I have just described. However, a percentage reduction, used as Mr Scott proposes as to create a limit in a consent condition, creates an absolute number limit (e.g. a 35% reduction of 100 kgN/ha/year is a limit of 65 kgN/ha/year or requires an absolute reduction of 35 kgN/ha/year). These

²⁵ Will Say Statement of Dr Jean-Paul Tavernet, 22 December 2023, para 19 and considered in the answer to Question 5 in the Joint Witness Statement of Overseer and Farm Systems Experts dated 2 February 2024.

²⁶ Supplementary Statement of Evidence, Michael Scott, 28 March 2024, para 2.36-2.37.

absolute numbers are subject to the same uncertainties described by the Overseer and Farm System experts.

- [60] The Council Reply Provisions avoid this issue because the % reduction is used as a 'drafting gate'. It is demonstrated using Overseer but the compliance point in consent conditions is the content of the NMP – i.e. the on-farm mitigations and practice changes, rather than a theoretical number. Variations to farming practices or the introduction of new practices can be accommodated, under this approach, by specifying (in consent conditions) when a refreshed NMP will be required. The conditions could also require a consent holder to demonstrate that the IFLU will still achieve no less than the % reduction proposed by the application if new practices are adopted.
- [61] The only assessment method that completely avoids the issues associated with prescribing Overseer derived outputs as absolute limits is the NRAT.

Nitrogen Risk Assessment Tool (NRAT)

- [62] Dr Jolly, Professor Horne and I have reflected on the concerns expressed by Commissioner Hodges about the 'newness' of the NRAT as compared with the greater confidence held for Overseer, given the years of testing including field testing of Overseer in pastoral farming systems.
- [63] Professor Horne maintains that the NRAT is appropriately tailored for pastoral IFLU in the targeted water management sub-zones.²⁷ His view is that the NRS basis for the NRAT has been appropriately tested over a long period and that the building blocks of the NRAT are similar to those in Overseer. However, he accepts that the NRAT has not been subjected to the same level or duration of scrutiny as has Overseer in pastoral farming settings.
- [64] Commissioner Hodges has expressed an interest in seeing how the NRAT and Overseer might be used together in a complementary way in the PC2 regulatory framework. As I have noted, all the Overseer and farm system

²⁷ Sixth Statement of Evidence, David Horne, 17 May 2024, paras 38-39.

experts (except Dr Parlato) agree²⁸ that Overseer should not be used to specify absolute numbers. All Overseer and farm systems experts agree that a multiple evidence approach could be developed using both Overseer and the NRAT. Following further discussion with Professor Horne and Dr Jolly, I have proposed a dual NRAT/Overseer approach where the NRAT is used to differentiate IFLU that have low risk of nitrogen leaching and provide for these as a controlled activity. Professor Horne's opinion is that dairy IFLUs that score 'low' on the NRAT will have adopted a range of GMPs to reduce their nitrogen leaching to a low level.²⁹

- [65] The impact of using a NRAT approach is supported by Dr Snelder's evidence³⁰ that the water quality outcomes under the alternative specified reduction and NRAT pathways are not practically distinguishable from those achieved by implementation of the recalibrated Table 14.2 alone. Dr Snelder's evidence is also that the differences in water quality outcomes, between the alternative pathways and strict implementation of Table 14.2, are not of practical importance to the environmental characteristics that are affected by nitrogen levels.³¹
- [66] The combined NRAT/Overseer approach described below provides an alternative to Table 14.2 that avoids imposing an Overseer output as an absolute number, requires IFLU to operate at a low nitrogen leaching rate and requires reductions in nitrogen leaching that will achieve modest water quality improvements similar to those achievable using Table 14.2 alone. These modest water quality improvements may not be as great as would be achieved by strict enforcement of Table 14.2. However, it is important to take a realistic view of what 'strict enforcement' of Table 14.2 means. The reality is that the operative One Plan provides for exceptions from Table 14.2. The SIN modelling scenario based on 'strict enforcement' is conservative in this respect because it assumes no exceptions but the operative One Plan does provide for exceptions.

²⁸ Answer to Question 10, Joint Witness Statement of Overseer and Farm System Experts dated 2 February 2024, pg 9.

²⁹ Sixth Supplementary Statement of David Horne dated 17 May 2024, para 48.

³⁰ Statement of Reply Evidence, Antonius Snelder, 13 November 2023, para 24.

³¹ Statement of Reply Evidence, Antonius Snelder, 13 November 2023, para 15.

- [67] I have retained the % reduction pathway as a controlled activity for IFLU that cannot achieve the ca nitrogen leaching represented by Table 14.2 or the NRAT. These IFLU will be required to make reductions. Professor Horne has described in his Supplementary Statement dated 17 May 2024 how, for some IFLU with nitrogen leaching that is close to Table 14.2, a 20% or 35% reduction would potentially drive reductions below the maximum allowed by Table 14.2. The Table 14.2 pathway is not subject to the same limit on duration or the requirements for lodgement within twelve months or achievement of reductions within two years as the NRAT and % reduction pathways. Professor Horne considers that, for some IFLU, where they are close to the CNLM, this will provide an incentive to try to make further reductions to comply with Table 14.2 and pursue the Table 14.2 pathway.
- [68] The 'sinking lid' approach of Table 14.2 allows IFLU to make the reductions necessary over a period of time out to Year 20. Under my proposal, the NRAT pathway requires that pastoral IFLU must demonstrate they have low risk of nitrogen leaching at the date of lodgement of their application and CVG must demonstrate they will achieve low risk within two years. The specified reduction pathway requires that reductions are brought forward earlier. These are positive features of the proposed framework in my opinion – driving compliance with Table 14.2 or driving nitrogen leaching reductions earlier than under Table 14.2. I discuss the other merits and implications of the proposed dual NRAT/Overseer approach for CVG and pastoral IFLU in the following sections.

Role of the NRAT - CVG

- [69] The CNLM limits in Table 14.2 were developed based on pastoral (dairy) farming reference files. The evidence of Dr Jolly and Mr Ford is that Overseer is problematic when used for estimating nitrogen leaching losses from green vegetable production. The reasons for this have been comprehensively canvassed in their evidence. I understood from Mr Clarke's evidence, as a grower who has applied Overseer to his growing systems, that the exercise is also expensive.

- [70] The evidence of Dr Jolly, Mr Barber and Mr Ford is that the NRAT is a more appropriate tool for use in assessing the risk of nitrogen leaching from vegetable growing systems than Overseer. The JWS of the Overseer and Farm System Experts³² and Mr Ford's Supplementary Evidence³³ provide a useful account of the issues. Dr Jolly has confirmed that the issues affecting crop rotation have not been addressed in recent Overseer updates.³⁴ The nitrogen leaching risk limits proposed for CVG (in Table 14.2B) are set to low risk for each given combination of soil and rainfall. CVG is known to occur in the Lake Horowhenua (Hoki_1a) and Coastal Rangitikei targeted water management sub-zones in Horizons region. The nitrogen leaching risk limits are based on the experts' specific knowledge of actual growing systems in these (and other) targeted water management zones.
- [71] Dr Snelder's evidence³⁵ is that the reduction in nitrogen loss from the Hoki_1a water management sub-zone associated with implementation of the NRAT will produce an appreciable (21%) reduction in soluble inorganic nitrogen (SIN) concentration in sub-zone rivers. Even if the on-farm reduction in nitrogen leaching is less than Dr Jolly's estimate of 70%, Dr Snelder's opinion was that there would still be a significant reduction in SIN load.³⁶
- [72] My conclusion is that the NRAT is a more effective and efficient method than Overseer for use as a drafting gate for managing nitrogen leaching risk from commercial vegetable growing.
- [73] I have retained the 35% reduction pathway for CVG that does not fall into the 'low' NRAT category, also as a controlled activity. This ensures that CVG that have higher nitrogen leaching are required to make reductions that will bring them closer to, or compliant with, the Table 14.2 limits. Where CVG are unable to make reductions to qualify under any of the controlled activity

³² Joint Witness Statement of Overseer and Farm System Experts dated 2 February 2024.

³³ Supplementary Statement of Evidence, Stuart Ford, 28 March 2024.

³⁴ Fifth Statement of Evidence, Anne-Maree Jolly, 17 May 2024, para 43.

³⁵ Statement of Reply Evidence, Antonius Snelder, 13 November 2023, para 25.

³⁶ Statement of Reply Evidence, Antonius Snelder, 13 November 2023, para 22.

pathways (Table 14.2, low NRAT or 35% reduction) they will require assessment as a discretionary activity.

Role of the NRAT - Pastoral

- [74] The nitrogen leaching risk limits in Table 14.2A (pastoral) have been set to low risk for each given combination of soil and rainfall. I note Professor Horne's finding³⁷ that broadly the same percentage of existing dairy IFLU fall within the 'low' risk band (approximately 55%) as could meet the Table 14.2 Year 10 CNLM. I note again Professor Horne's evidence that a dairy IFLU assessed as 'low' NRAT risk will be adopting mitigation measures that reduce nitrogen leaching to a low level. Professor Horne has explained previously in evidence to the hearing that imposing more stringent or intrusive mitigation measures will not necessarily yield measurably greater instream nitrogen load reductions. This conclusion is supported by Dr Snelder's SIN modelling results.

The Dual NRAT/Overseer Framework

- [75] I propose that:
- (a) The Table 14.2 controlled activity pathway is retained with a reference file approach incorporated into the One Plan to address version changes. The on-farm measures that achieve compliance with the CNLMs will be specified in the NMP accompanying the application. Consent conditions would require implementation of these measures and could stipulate that the CNLM must not increase over time. Conditions of consent could also require recalibration of Overseer versions using the Overseer reference file approach to enable compliance monitoring on a like-for-like basis.
 - (b) Alternatively, where an IFLU can demonstrate that the current farm system achieves a low nitrogen leaching risk score (by reference to the nitrogen leaching risk limits in Table 14.2A), it will qualify for consideration as a controlled activity. The on-farm measures that

³⁷ Sixth Statement of Evidence, David Horne, 17 May 2024, para 50.

achieve the low risk score will be specified in the NMP accompanying the application. Consent conditions would require implementation of these measures and could also stipulate that the risk score must not increase over time. Pastoral IFLU are required to demonstrate low risk at the time of applying. I understand from discussion with Dr Jolly that CVG will need some time to implement, monitor and embed the NRAT and propose they be required to demonstrate low risk within two years.

- (c) Where an IFLU is unable to demonstrate that the current farm system achieves a low nitrogen leaching risk score or comply with Table 14.2, it will still qualify for consideration as a controlled activity if it commits to implementing on-farm mitigations that achieve a predicted minimum 20% (pastoral) or 35% (CVG) reduction in nitrogen leaching relative to the 2012/2013 baseline year within two years of the grant of consent. This aspect of the proposal is the same as DV-PC2. The mitigations to achieve the minimum 20% or 35% reduction will be specified in the NMP accompanying the application and become the basis for compliance monitoring. Again, this reflects the approach in DV-PC2.

[76] I have discussed with Professor Horne the idea of consent conditions also requiring periodic reporting of Overseer outputs for the farm system, for example to demonstrate the impact of the NMP measures over time and to confirm that reduced nitrogen leaching is sustained for the duration of the consent. Professor Horne does not favour this requirement. For NRAT consents it would require consent holders to obtain an Overseer subscription even where they did not need this for their resource consent. For consents reliant on Table 14.2 or the % reduction pathways, it would likely only show what the Overseer information for the original application showed. A requirement for reporting Overseer budgets would unnecessarily duplicate assessment and reporting requirements without adding particular value. I comment separately, later in this statement, about the merits of using PC2 consents to generate Overseer budgets to inform future catchment planning.

- [77] The provisions incorporate the reference file method to address future Overseer version changes.
- [78] Professor Horne has summarised the reasons why a dual approach has merit.³⁸ I have factored these matters into my s. 32AA evaluation of the proposed dual approach (set out in Appendix 2 to this statement).
- [79] Used in this way, the NRAT supports Table 14.2 with a multi-evidence approach.

Restructured Policy 14-6

- [80] The Court has expressed some qualms about the length and complexity of considerations in Policy 14-6. This is the policy under which exceptions from the controlled activity pathways will be considered. DV-PC2 Policy 14-6 was crafted intentionally to present a rigorous set of policy considerations for assessment of discretionary activities. The intention being to encourage IFLU to try as hard as possible to make nitrogen leaching reductions to qualify as a controlled activity. It remains my view that Policy 14-6 presents a difficult policy hurdle for any IFLU unable or unwilling to qualify as a controlled activity.
- [81] DV-PC2 presented Policy 14-6 as a set of considerations all having equivalent weight. After discussion at conferencing, the planners involved prior to the March 2023 mediation agreed that Policy 14-6 should be restructured into two sets of considerations:³⁹ one to be given 'particular regard' and another to be given 'regard'. The planners at that time agreed that greater weight should be given to outcomes for mana whenua values, the size of the exceedance and whether the IFLU is adopting all practicable mitigation measures. I agree that, even split in this way, Policy 14-6 is a long list of considerations. While I have retained the 'have particular regard' and 'have regard' distinction in the matters to be considered in determining *whether* to grant or decline consent. I have shifted some matters into a third set of

³⁸ Sixth Statement of Evidence, David Horne 17 May 2024, from para 43.

³⁹ These included planners for Horticulture NZ, Federated Farmers, and Fish and Game and Ngati Turanga.

matters to be considered in imposing conditions of consent. In my view, this further focuses the 'list' and provides more direction to plan users.

[82] The DV-PC2 version of Policy 14-6 had thirteen matters for consideration. I have added one, combined others and deleted two considerations. I discuss later in my evidence how I revisited 'afresh' all the points within this policy. At this stage, I note (at a high level) the following points:

- (a) At expert conferencing prior to Mediation in March 2023, the planners involved at that time proposed a new (first) policy addressing the impact on mana whenua values. I have retained that additional clause.
- (b) I have rationalised the clauses addressing whether the GMPs and additional measures are the best practicable option and have focused on inquiry into whether further reductions in nitrogen leaching are possible.
- (c) I have separated out the Policy 14-6 clause about consent duration as a separate 'must do' directing policy clause that applies to all consents for exceptions from Table 14.2.
- (d) DV-PC2 includes a consideration in Policy 14-6 (for assessing applications for exceedance of Table 14.2) of the extent to which non-compliance is attributable to updates in Overseer versions. Mr Scott and I have both deleted this. My view is that the reference file method makes this policy redundant.

Relevance of Policy 14-5 and Policy 14-6 to reserved matters

[83] Commissioner Edmonds questioned whether the policy references in the Rule 14-1 controlled matters are meaningful. That is a good question. My recollection is that the references to Policies 14-5 and 14-6 were inserted in response to requests to do so by some submitters. However, Commissioner Edmonds' observation is correct that not all parts of these policies are relevant. Most of Policy 14-6 is relevant only for activities that do not comply with Rule 14-1. These non-compliances are considered under Rule 14-2A as

full discretionary activities, so there is no need to specifically identify policies there. The parts of Policies 14-5 and 14-6 that make sense in Rule 14-1 are:

- (a) 14-5 (f) – exclusion of cattle from surface water bodies and threatened and at-risk habitats (but this is already addressed by Rule 14-1 condition (f));
- (b) 14-5 (g) – culverting or bridging cattle crossings where streams are over 1m wide (but this is already addressed by Rule 14-1 condition (g));
- (c) 14-6 (b) – implementation of FMPs and additional measures to manage the four contaminants of concern (N, P, sediment and faecal contamination, but this requirement is already specified in a more directive way ('to limit' these) in the Rule 14-1 reserved matter (b));
- (d) 14-6 (f) – exclusive of cattle from surface water bodies (which cross references Policies 14-5 (f) and (g) and is already addressed by Rule 14-1 conditions (f) and (g)).

[84] The exclusion of cattle from wide rivers on low slope land is also, separately, regulated by the national Stock Exclusion Regulations. The stock exclusion matters identified above are wider than the particular regulatory effect of the Stock Exclusion Regulations and, as noted, are already explicitly addressed by conditions of Rule 14-1. The few relevant policy matters in Policies 14-5 and 14-6 are already addressed by conditions or reserved matters in the rule. There appears to be no merit in including references to the whole of Policies 14-5 and 14-6. Policy 14-9 is the compulsory consent decision making policy that was required to be inserted by Policy A4 of the 2017 amendment to the NPS-Freshwater Management 2014. It remains relevant. The position is similar for the reference to Policies 14-5 and 14-6 in the discretionary matters for Rule 14-2.

[85] Commissioner Edmonds highlighted Policy 14-3 as being potentially relevant. It requires the implementation of GMPS and additional measures to reduce nitrogen leaching to the extent that those GMPs and measures address the matters in Policies 14-1, 14-2, 14-4, 14-5 and 14-6. Policy 14-3

applies to decision making about a wider range of discharges than those under Policy 14-5. The references within Policy 14-3 to other chapters of the One Plan open up considerations, including best practicable option considerations, more usually appropriate for decision making where unlimited discretion is to be exercised. My view is that the requirements in relation to GMPs and additional measures to address the effects of IFLU are already sufficiently described in the conditions of Rules 14-1 and 14-2. Policy 14-3 does not do any more but does have the potential to introduce or suggest wider discretions than these rules actually allow.

- [86] For the reasons explained here, I propose to delete the references to Policies 14-5 and 14-6 in Rules 14-1 and 14-2.

Additional provisions to address issues of concern to mana whenua appellants

- [87] The Council is currently engaged in discussion with Mr Turoa and Mr Carlyon on behalf of Ngāti Turanga about refinements to the PC2 policies and methods that could assist in addressing their concerns. Discussions have focused on potential amendments to Policy 5-8 and Policy 14-6 and an additional RPS Method to better address issues of concern to mana whenua. Discussions have not concluded at the time of writing this statement of evidence, so it is not appropriate for me to include proposed wording at this time. Council's aim is to circulate any additional provisions prior to planning conferencing scheduled for 27 May 2024. I simply wish to draw to the Court's and parties' attention the potential for these additional changes to the Council Reply Provisions to address these particular matters.

Table 14.2 Year 20 CNLMs and Minor Errors

- [88] The Hearing Panel determined for DV-PC2 that the Year 20 row in Table 14.2 should only apply to new IFLU. This was in response to evidence presented to the Council hearing by Potatoes New Zealand. The Hearing Panel agreed with Potatoes NZ that the CNLMs for existing IFLU should not be subject to a long term 'sinking lid' approach. They considered that a fixed leaching target should remain in place in the longer term to give individuals and industry groups more certainty. The Hearing Panel's intention and reasons

were clearly stated⁴⁰. However, this amendment was not included in the DV-PC2. It appears to have been an oversight and Horizons identified it as a matter that needed to be, and could be, amended as a Clause 16 correction.

[89] It also became clear that two of the recalibrated CNLM values in Table 14.2 had not been entered correctly. Also, the Overseer version specified in the text above Table 14.2 was incorrect. These errors were also to have been corrected as Clause 16 corrections.

[90] However, it appears that none of these Clause 16 corrections have been made. The Overseer version number and the CNLMs have to be updated now anyway to reflect the more recent Overseer version 6.5.4. I have made those changes in the Council Reply Provisions.

[91] I have not inserted the limitation of Year 20 applying only to new IFLU. Year 20 looked further away in 2020 when PC2 was first heard. Year 20 is now 2034 – 2036 and, for applications made under Table 14.2 will be applicable.

Timing of Lodgement

[92] DV-PC2 required that applications under the specified reduction pathway had to be lodged no later than 31 December 2022 to qualify as a controlled activity. AV-PC2 changed this to a date no later than twelve months after the date consent is granted under Rule 14-1. I have retained the twelve month window for IFLU applications under the pathways that are alternatives to Table 14.2. To the best of my knowledge, no submitter sought to restrict the Table 14.2 pathway in this way.

Re-consenting Existing IFLU Under Rule 14-1

[93] Condition (a) was included in DV-PC2 to prevent holders of consents for existing IFLU that have nitrogen leaching limits lower than Table 14.2 from applying for new consents or variations to conditions to increase their CNLMs up to the Table 14.2 limits ('leaching up').

⁴⁰ Panel Report & Recommendations on Proposed Plan Change 2, paragraph 3.206 (pages 66 and 67).

[94] On reflection, the condition is clumsy and as worded would prevent some consent holders from applying to renew their pre-2019 consents for existing IFLU. The purpose of the condition can be achieved by more directly addressing the issue. My suggestion is:

- (a) Where an application is made to replace, renew or vary consent for an existing intensive farming *land*[^] use granted prior to 22 July 2019, the nitrogen leaching loss proposed in the application must not exceed the nitrogen leaching loss authorised by any earlier resource consent.

N Leaching Risk or N Loss

[95] I have considered the observation made by the Court in questions to witnesses that the concern of the One Plan should be to reduce nitrogen leaching loss. Some of the references to nitrogen leaching loss in AV-PC2 were changed to 'risk', to accommodate the NRAT. The observation is a fair one. The aim of the Chapter 14 provisions is to achieve nitrogen leaching loss reductions. Reducing the risk of nitrogen leaching is a means to achieving reduced loss. Accordingly, I have reverted to the expressions 'nitrogen leaching loss' or 'nitrogen leaching' instead of 'leaching risk' except where the expression 'risk' is accurate in the context used.

F. THE 'DAY V3 PROVISIONS'

[96] I have highlighted earlier in this statement the primary points of difference between the Day V3 Provisions and Council Reply Provisions and the reasons why I consider the Day V3 Provisions provide little certainty about how much nitrogen leaching reduction will be required of IFLU that exceed Table 14.2.

[97] The conclusion of my s. 32AA evaluation (Appendix 2 to this statement) is that the Council Reply Provisions perform markedly better than the Day V3 Provisions in most respects. In particular, I have reached the view that the Council Reply Provisions deliver greater certainty of nitrogen leaching reduction outcome than the Day V3 Provisions, greater certainty of outcome for IFLU and for the community and will better drive farm management practice changes to reduce nitrogen leaching.

- [98] The Council Reply Provisions (inclusive of the alternative pathways) also, in my view and based on the evidence of Professor Horne, Dr Jolly and Mr Clarke induce better engagement by farmers and growers. I consider this to be important to the success of implementing the PC2 provisions as early and as efficiently as possible. PC2 is an interim plan change. It needs to be bedded in and working as quickly as possible, so that the Council and community can get on with the next phase of necessary policy development (the Oranga Wai freshwater planning instrument).
- [99] In addition to these overall differences, I highlight below the reasons why I do not support specific aspects of the amendments proposed in the Day V3 Provisions.
- [100] **RPS Policy 5-8 (a) (i) (A):** In DV-PC2, Policy 5-8 (a) (i) (A) requires that when establishing the nitrogen leaching maximums in the One Plan, all sources of nitrogen in the catchment must be taken into account. All known sources were taken into account in creating Table 14.2. All known sources were also taken into account in Dr Cox's modelling of alternative scenarios for PC2.⁴¹ Mr Scott has reverted to the pre-PC2 wording and limited this to only take into account non-point source discharges. I am advised by Ms Patterson that point source discharges are not significant contributors to contaminant loads in all of the targeted water management sub-zones. However, it is appropriate, in my opinion, that all known sources are considered when establishing the One Plan regulatory settings for diffuse discharges from agricultural land use. The discharges from IFLU do not occur in isolation.
- [101] **RPS Policy 5-8 (a) (i) (B):** Mr Scott's proposal reverts to the pre-PC2 wording of clause (a) (i) (B) which requires the nitrogen leaching maximums (the CNLMs in Table 14.2) to 'achieve' the strategies for water quality set out in RPS Policies 5-2, 5-3, 5-4 and 5-5 and the strategy for groundwater set out in Policy 5-6. DV-PC2 amended to read 'contribute to implementation of' those strategies. Ms Patterson's evidence confirms that implementation of the

⁴¹ Statement of Evidence, Timothy Cox, 6 October 2023, paras 31-42.

Table 14.2 CNLMs, for existing and for new IFLU, does not alone achieve the strategies.⁴² This was never the intention of the One Plan.

- [102] Dr Snelder has confirmed in evidence that this reality is unchanged. The CNLMs only apply to new IFLU region-wide and to existing IFLU in the targeted water management sub-zones. These are not the only sources of nitrogen contamination in the targeted water management sub-zones and the CNLMs address only one contaminant that is causing water quality degradation.
- [103] Against the background of contaminant contributions from other land use activities, even if all existing IFLU in the targeted water management sub-zones comply with Table 14.2, this alone cannot be expected to reverse the water quality degradation throughout the region. Dr Snelder's evidence is that strict enforcement of the Table 14.2 CNLMs for the small body of land use activities captured by the rules will yield modest water quality improvement. This is illustrated in Table 3 of Dr Snelder's supplementary evidence⁴³ as 'Proposed Consented' (being implementation of PC2 with no provision for a discretionary activity pathway and existing consents at consented rates). This scenario achieves a mean relative difference of 39.5. Dr Snelder's evidence confirms that this improvement will not achieve the One Plan Schedule E targets for soluble inorganic nitrogen in the targeted water management sub-zones, let alone the entire region, that Policy 5-8 addresses.
- [104] My view remains that the realistic expectation must be that the nitrogen leaching maximums will *contribute to* water quality improvement and *contribute to* implementing the strategies.
- [105] In expert conferencing prior to mediation the planners involved at that time (not including Mr Scott) proposed amending the wording to read 'will address key sources and pathways of contaminant loss through' the implementation of the strategies for water quality set out in RPS Policies 5-

⁴² Statement of Reply Evidence, Maree Patterson, 13 November 2023, paras 7-13. This was also the evidence before the Council hearing, as set out by Ms Abby Matthews.

⁴³ Supplementary Statement of Evidence, Antonius Snelder, 18 January 2024, page 16.

2, 5-3, 5-4 and 5-5 and the strategy for groundwater set out in Policy 5-6. The planners considered this wording was more directive of what the nitrogen leaching maximums are intended to achieve. On reflection, I consider the wording is unnecessary because other parts of Policy 5-8 make it clear how the CNLMs will contribute to water quality improvement. I have retained the DV-PC2 wording of Policy 5-8 (a) (i) (B).

[106] **RPS Policy 5-8 (a) (i) (E):** Mr Scott's proposal reverts to the pre-PC2 wording which required nitrogen leaching maximums to be 'achievable' on most farms using only GMPs (he has deleted the reference to BMPs). I discussed earlier in this statement why DV-PC2 was changed to 'achieved' (which I support). Mr Scott's deletion of BMPs is interesting because it is Professor Horne's evidence that a combination of GMPs and BMPs will be required to achieve compliance with Table 14.2.⁴⁴ Without BMPs, it is likely that even fewer IFLU (and many fewer than 'most') would comply with Years 10 and 20 of Table 14.2.

[107] **RPS Policy 5-8 (a) (i) (E):** Mr Scott's proposal reverts to the pre-PC2 requirement that appropriate timeframes will only be provided where 'large' changes to management practices or 'high levels' of investment are required to achieve the nitrogen leaching maximums. His proposed provisions do not provide any direction on what 'large' or 'high levels' mean. I consider that appropriate timeframes should be provided to ensure that *all* consented IFLU implement staged reductions in a timely manner and as early as practicable (not just where large changes are required). The Council Reply Provisions provide that existing IFLU will only be granted consents where, either, their nitrogen leaching is already compliant with Table 14.2 or low (i.e. low risk under the NRAT) or mitigation measures will be implemented to reduce nitrogen leaching by 20% (for pastoral IFLU) or 35% (for CVG) within two years of the grant of consent. I support the DV-PC2 wording and have retained that in the Council Reply Provisions.

[108] **RPS Policy 5-8 (a) (iia):** Policy 5-8 (iia) is the policy that requires that existing IFLU that do not comply with the specified limits must be regulated to reduce

⁴⁴ Sixth Statement of Evidence, David Horne, 17 May 2024.

nitrogen leaching loss to the maximum extent reasonably practicable in the shortest feasible timeframe, having regard to the listed matters. Mr Scott has turned the listed matters into a list of requirements for the granting of consents and has deleted DV-PC2 considerations (A) to (E). Mr Scott has shifted some of the concepts in (A) to (E) into his abbreviated list of decision making considerations in Policy 14-6 (ba) but has varied the wording.

[109] Mr Scott has included in the Policy 5-8 (a) (iia) list a requirement that consents granted *'take into account all non-point sources of nitrogen in the catchment'*. In my view, this amendment will set IFLU applicants up to fail because this consideration is one for establishing the Plan's regulatory settings, not one for individual applications. Individual IFLUs will not necessarily have full knowledge of all non-point sources of nitrogen in the catchment. While the consent authority will have knowledge about what all of those sources of nitrogen are and will be able to understand the cumulative contaminant context for any individual application, an applicant will not have that knowledge. It is important to note that the catchment is a much broader geographic area than the water management sub-zone. Having to ascertain this information would, in my view, be an unreasonable burden. I do not support this proposed amendment.

[110] The impact of an individual application on cumulative surface water contamination is already adequately addressed, in my view, by Policy 5-8 (a) (iia) (A) which I have retained in the Council Reply Provisions. Policy 5-8 (a) (iia) sets out very clearly the basis on which exceptions from the Table 14.2 CNLMs are to be considered and, in my view, the exceptions proposed under the Council Reply Provisions appropriately address these matters. Cumulative effects are also a consideration under Policy 14-6.

[111] **RPS Policy 5-8 (a) (iia):** Mr Scott has inserted into 5-8 (a) (iia) (B) a requirement that any consents granted will achieve the strategies for surface water and groundwater set out in Policy 5-2 to 5-6. My view is that no individual IFLU application could achieve this or demonstrate achievement of these strategies. The requirement is unreasonable in my view. Rather, it is my opinion that the concern should be with the contribution of individual

IFLU applications to cumulative contamination, to the extent that can be interrogated at individual farm scale.

- [112] Mr Scott has deleted considerations (A), (B), (C) and (D). I consider they are necessary and appropriate considerations for this RPS policy.
- [113] **RPS Policy 5-8 (a) (iib):** Mr Scott has deleted the policy clause that provides for transition to an alternative non-intensive farming land use for IFLU that cannot comply with Table 14.2 (although he lists it as one of three exceptions in Policy 14-6 (b)). In his Supplementary Evidence, Mr Scott explains that his reason for deleting this clause is his belief that it is possible that some non-IFLU activities could leach at rates higher than the Table 14.2 CNLMs.⁴⁵ Without the benefit of any example in Mr Scott's Supplementary Evidence, it is difficult to understand what type of non-IFLU activity Mr Scott envisages could cause diffuse nitrogen leaching that is not already captured by the definition of IFLU. If such a non-IFLU activity exists, it is not regulated now by Rules 14-1 to 14-4. My opinion is that appropriate safeguards are already, or can be, incorporated into Policy 14-6 (e) to avoid the outcome Mr Scott fears. I have proposed some refinements to Policy 14-6 (e) to clarify the intention that the land use activity transitioned to must result in nitrogen leaching that does not exceed the CNLMs in Table 14.2. Transition 'out' may be the only reasonable outcome for some high nitrogen leaching IFLU. It is appropriate, in my view, that this signalled and supported in the RPS.
- [114] **RPS Policy 5-8 (d):** Mr Scott has amended the word 'minimise' to 'manage' (being the pre-PC2 wording). This policy requires that IFLU implement GMPs to minimise nutrient leaching and run-off, faecal contamination and sediment losses. My opinion is that 'minimise' is more directive than 'manage' and indicates a desired outcome. There is no definition of 'minimise' in the One Plan but it has become understood to mean to reduce to the smallest amount reasonably practicable.⁴⁶ Minimising losses of the named contaminants is the aim of the PC2. I continue to hold the view that

⁴⁵ Supplementary Statement of Evidence, Mike Scott, 28 March 2024, in para 3.17.

⁴⁶ For example, definition of "minimise" included in the Wellington Regional Council Natural Resources Plan.

‘minimise’ is more appropriate than the neutral process-oriented expression ‘manage’. I have adopted the DV-PC2 wording.

- [115] **Proposed Additional Reference File Method 5-14:** For the reasons earlier explained, I do not consider a wholly separate new method is required. I consider the intention to maintain Overseer reference files can be detailed in the existing methods.
- [116] **Policy 14-3:** Mr Scott has deleted the requirement in Policy 14-3 that, when making decisions on resource consents and setting consent conditions for activities affecting groundwater and surface water, the consent authority must have regard to good management practices and additional measures for decreasing nitrogen leaching. Mr Scott has adopted the pre-PC2 wording which commits Horizons to examining on an ongoing basis relevant industry-based standards generally, and not specifically in relation to groundwater or surface water or IFLU activities.
- [117] I supported the amendment proposed in DV-PC2 because it focuses attention on the adoption of good management practices for decreasing nitrogen leaching for all applications affecting water quality (rather than simply reading about them in a general sense). In my view the pre-PC2 wording reads more as a method than a policy direction to guide consent decisions. The experts have agreed on the core GMPs and BMPs and mitigations that will drive nitrogen loss reduction (there are reflected in the NRAT schedules). Not all of those measures are necessarily specified in ‘industry standards’ or in codes or practice or guidelines. The point made strongly in evidence to the Council hearing was that IFLU should not be constrained by referring in PC2 to fixed standards from considering and adopting new GMP innovations and new technologies.
- [118] In my opinion, the wording Mr Scott proposes takes the focus away from directing IFLU applicants to adopt GMPs, BMPs and additional measures. I do not support it for this reason.
- [119] **New Policy 14-X Supporting the Reference File Method:** I agree with Mr Scott that there needs to be some additional policy to support the Overseer

reference file approach. I have proposed that as an additional clause within Policy 14-5. I do not agree a separate policy is required.

- [120] **Insertion into Policy 14-5 of 'Projected Long-Term Average':** Mr Scott has inserted into Policy 14-5 a new concept of 'projected long-term average' leaching of nitrogen. This is not currently a defined term and it is not clear what is meant by it. The definition of CNLM does not currently include averaging. It appears that Mr Scott's amendment introduces a different way of applying the CNLMs than intended by the One Plan. I have not adopted his suggestion.
- [121] **Removal from Policy 14-5 of the Alternative Controlled Activity Pathways from DV-PC2:** Mr Scott opposes all of the alternative controlled activity pathways proposed by the Council (the DV-PC2 specified 20%/75th percentile and 35% reduction pathways and the AV-PC2 NRAT). Mr Scott has amended Policy 14-6 to clarify that the only consent pathways available are compliance with Table 14.2 (or the reference file equivalent CNLMs) as a controlled activity or application for a discretionary activity consent. For the reasons explained earlier in this statement, it is my opinion that an alternative is required, other than Mr Scott's discretionary activity pathway, for the majority of IFLU that will not be able to meet Table 14.2. The conclusion of my s. 32AA evaluation (Appendix 1) is that the Council Reply Provisions provide a more efficient and effective and overall more appropriate way of achieving the relevant PC2 and One Plan objectives.
- [122] **Restructuring of Policy 14-6:** Mr Scott explains in his supplementary evidence his reasons for the substantive changes to the content of and restructuring of Policy 14-6.⁴⁷ Mr Scott explains that he has taken a 'first principles' approach, going back to the original One Plan wording. His approach dismisses a number of the amendments that were made to Policy 14-6 in response to submissions and evidence to the Council hearing.
- [123] I appreciate that the current hearing is a *de novo* hearing, and not bound by DV-PC2, so I have revisited all of the considerations included in Policy 14-6.

⁴⁷ Statement of Supplementary Evidence, Michael Scott, 28 March 2024, para 3.8-3.10.

My view is that many of the DV-PC2 Policy 4-6 considerations remain valid and relevant and I have retained those. In my opinion, in his attempt to consolidate and condense the Policy 14-6 considerations, Mr Scott has lost the value of some important matters introduced by DV-PC2 following the Council hearing.

- [124] It is also my opinion that his process of consolidating and condensing the considerations has weakened the direction they provide to decision makers when making decisions about whether to grant or decline applications for IFLU that exceed Table 14.2. For example, Mr Scott has deleted the requirement from Policy 14-6 (b) that all IFLU consents must implement GMPs and additional measures to manage nutrient leaching and run-off, faecal contamination and sediment loss as part of any IFLU. This policy is a positive feature of PC2 that is not specifically challenged by any appeal points. In slicing and dicing Policy 14-6 and shifting this requirement into Policy 14-6 (e) Mr Scott has lost the emphasis on achieving reductions in nutrient contamination and sediment losses to the maximum reasonably practicable extent as soon as practicable. In my view this weakens the policy framework.
- [125] Mr Scott's framework requires decision makers to 'consider' potential effects on surface water and groundwater, recognising the state, sensitivity and absorptive capacity and of lakes and wetlands. The Council Reply Provisions require the decision maker to 'have particular regard' to the extent of the activity's exceedance of the limits and the contribution of the activity to cumulative nitrogen leaching. It also requires the decision maker to have 'particular regard' to proportionality in ensuring that IFLU that have high risk of nitrogen leaching are required to make proportionate reductions. As I have noted, the Council Reply Provisions also 'require' the implementation of GMPs and additional measures to 'minimise' contaminants and 'avoid, remedy or mitigate' potential effects on these receiving environments, recognising state, sensitivity and absorptive capacity. These are helpful directive policies in my view.
- [126] My view is that Mr Scott's policy framework is weaker. For example:

- (a) Mr Scott's provisions require (in (b) (iii)) a 'trajectory of staged reductions'. It is not clear what is meant by 'staged' in the context of a maximum ten year consent and there are no parameters directing how steep, how fast or how large this 'trajectory' must be for the majority of outstanding existing IFLU (pastoral) IFLU. Any insignificant reduction could potentially qualify.
- (b) I accept that Mr Scott has included a requirement to have particular regard to whether CVG can achieve a 35% nitrogen leaching reduction relative to baseline. I understand that Mr Scott's intention is that this consideration should apply alongside all of his other considerations, but if a 35% reduction is achieved, it will not necessarily guarantee a grant of consent. Apart from creating unnecessary uncertainty for CVG, Mr Scott's 35% reduction policy does not ensure that this will be achieved for any CVG IFLU. It is difficult to discern, from the wording Mr Scott has proposed, exactly what the decision maker must have particular regard to. The evidence of the CVG farm experts is that it can be achieved in many cases and my view is that it is reasonable to specify this requirement as a minimum requirement (as represented within the Council Reply Provisions). There is also no equivalent indicative quantum of reduction for pastoral IFLU, and therefore no direction as to the size of reduction likely to be realised pastoral IFLU.
- (c) The Council Reply Provisions require the decision maker, in deciding whether to grant consent or not, to have particular regard to whether further reductions (than proposed by the applicant) are actually possible for the IFLU applied for. That is, the decision maker is required to consider whether there are other (better) alternatives. There is no equivalent consideration in Mr Scott's provisions.
- (d) Mr Scott has inserted the requirement that the decision maker must take into account all non-point source discharges of nitrogen in the catchment (the wording from Policy 5-8, although its purpose there is quite different). As I have explained earlier, this is unduly narrow in my view. The state of the receiving environment, as a result of *all*

sources of nitrogen contamination, will form the baseline for consideration of individual IFLU (not the existing environment absent existing point source nitrogen sources). This appears to weaken consideration of cumulative adverse effects as part of any consent application.

- (e) Mr Scott proposes (in his 14-6 (c) (vi)) that any nitrogen leaching reductions required as a condition of consent are expressed as a percentage reduction from baseline. The Council Reply Provisions require that the measures to achieve the reduction are specified in the NMP in a way that forms the basis for compliance monitoring. The difficulty with specifying an Overseer nitrogen leaching reduction is that a consent holder can demonstrate a 'reduction' simply by inputting the same farm system inputs as promised in the application. The real test is whether those measures are implemented in the paddock.

[127] Mr Scott's Policy 14-6 (ba) also unnecessarily duplicates Policy 5-8 matters. For example, Mr Scott proposes in (ba) (vi) that the decision maker must only grant consent if doing so aligns with the strategies for surface water quality and groundwater quality set out in Policy 5-2 to 5-6. These matters are already brought into consideration in Policy 5-8 in a manner consistent with s. 104 of the Act ('have regard to'). In my view, use of the expression 'only grant consent if doing so aligns with the strategies' does not strengthen the impact of Policy 5-8. It is difficult to see that a proposal that did not align with these strategies could be seen favourably. In my opinion, the expression 'aligns with' does not particularly add any policy 'heft'.

[128] Mr Scott has proposed a new consideration (his 14-6 (ba) (iv)) requiring a decision maker to make a decision consistent with having more intensive land uses on land units with higher productive capability and discouraging land uses on land units with lower productive capability, based on land use capability class. I understand the concern driving Mr Scott's proposed wording, but I do not know how a decision maker is expected to apply this policy consideration to an individual consent application. The decision maker must make a decision on the application before him/her/them. It will

not be open to the decision maker to direct that the IFLU applied for should locate somewhere else. The policy is not expressed in a way that requires consent to be declined where this is not achieved. It is not even clear in what circumstances this would not be achieved (what does '*more intensive land uses*' mean, what does '*discouraging*' mean?). Apart from inquiring whether, within the farmed area of the specific IFLU, more intensive aspects of that particular farming system should be undertaken on appropriate LUC land classes, the policy is not capable of driving catchment scale change. I am not sure what its purpose is and do not support the new sub-clause.

- [129] Mr Scott has restructured Policy 14-6 as a list of considerations to apply in determining whether to grant or decline consent and a list of matters to consider in imposing conditions of consent. I support that approach in principle (though not necessarily the content of his lists). I have also included in the Council Reply Policy 14-6 a subset of matters to be implemented through consent conditions.
- [130] **Rule 14-2:** Mr Scott has amended the restricted discretionary matters under Rule 14-2 by inserting discretion over the extent of non-compliance with nitrogen leaching maximums. Non-compliance with the Rule 14-1 nitrogen leaching limits is not within the scope of rule 14-2. Non-compliance with the Rule 14-1 nitrogen leaching limits is subject to Rule 14-2A (a full discretionary activity) not Rule 14-2 (restricted discretionary activity). Rule 14-2 is specifically and only for breaches of the other, non-nitrogen leaching, standards. There is no need for the amendment Mr Scott proposes. The conditions for Rule 14-2 already state that compliance must be achieved with the nitrogen leaching standards in Rule 14-1. Mr Scott's proposed amendment may be an error.
- [131] **Deletion of 75th Percentile Dairy Controlled Activity Pathway:** Mr Scott has deleted the option of the 75th percentile controlled activity pathway for dairy IFLU. The 75th percentile limits in DV-PC2 Table 14.2A were derived from a data set of dairy farmers using a now-superseded version of Overseer. I understand that the data set can no longer be replicated (without considerable difficulty). I am not proposing to retain the 75th percentile consent pathway in the Council Reply Provisions for this reason. I support

Mr Scott's deletion of Table 14.2A and the provisions associated with it, although for different reasons (Mr Scott does not support any alternative controlled activity pathway, including the 75th percentile pathway).

G. NUTRIENT MANAGEMENT PLANS

[132] Commissioner Edmonds asked whether the definition of 'nutrient management plan' should include a more detailed prescription of the contents of NMPs. I have considered the Code of Practice referred to in the definition. My view is that it comprehensively covers all of the matters likely to be relevant for IFLU. Dr Jolly has prepared a NMP template (for pastoral and CVG) which have been agreed to by Horizons. As noted, I have reviewed the templates in preparing my evidence, including the worked examples prepared by Dr Jolly.

[133] In my view, the importance of the NMP is that it defines the sources and scale of nitrogen leaching as a basis for compliance monitoring. Professor Horne's and Dr Jolly's advice is that it is the adoption of practice changes on farm that will drive nitrogen leaching reductions. It has been Horizons' practice to specify a maximum nitrogen leaching rate for the purpose of compliance monitoring. This is problematic for enforcement, given the acknowledged margin of error in the use of Overseer.⁴⁸ In my view, the core matters that need to be specified in a NMP to limit nitrogen leaching are the land use practices (and planned practice changes) intended to limit nitrogen leaching and when these are required to occur.

[134] The wording of the controlled activity reserved matter currently allows for the relevant land use practices to be specified in my view (*'the contents, implementation and review of' the NMP*). The purpose of the NMP should be to *demonstrate* how the nitrogen leaching risk reduction or nitrogen leaching loss reduction proposed by the application is to be achieved. This requirement is already specified in condition (d) of Rule 14-1.

⁴⁸ See, for example, the Joint Witness Statement, Overseer and Farm System Experts, 2 February 2024.

- [135] Prior to PC2, Condition (b) of Rule 14-1 required submission of a NMP annually. Annual budgets, in my view, may not be all that meaningful because, as the Court itself observed, if the IFLU uses the same Overseer inputs as in the application, the Overseer output must be the same (leaving aside the Overseer Version Issue). I recommended in my s. 42A report that this annual requirement be replaced by a reserved matter allowing the decision maker to specify the circumstances under which a NMP would need to be reviewed and re-submitted. The DV-PC2 policy framework requires the NMP to detail the GMPs, BMPs and additional measures that will be implemented on-farm to limit nitrogen leaching loss from the land and to avoid, remedy or mitigate other contaminant losses. Rule 14-1 Reserved Matter (b) also requires this, alongside Condition (d) which requires that these must demonstrate compliance with the relevant limit. The intention was that the focus should shift from checking Overseer budgets to providing a basis for checking that the practice changes necessary to drive reductions in nitrogen leaching would actually be implemented.
- [136] At expert conferencing following mediation, in May 2023, the planners involved at that time,⁴⁹ recommended deletion of the detailed prescription of the reference in Reserved Matter (b) to the detailed words about what should be included in NMPs. The thinking was that this detail is actually encompassed by the words in Reserved Matter (a).
- [137] On reflection, I consider the detailed description of what the NMP must contain, and why, is helpful in carrying through the DV-PC2 intention that GMPs, BMPs and additional measures will be required to be implemented to reduce nitrogen leaching. I have restored this wording in the Council Reply Provisions.
- [138] Dr Jolly's worked example of a dairy farming NMP illustrates how commitments to planned additional measures might be specified in an NMP.

⁴⁹ Sue Ruston (Horticulture NZ), Gerard Willis (Federated Farmers NZ), Greg Carlyon (Ngāti Turanga and Wellington Fish and Game Council) and Christine Foster (Horizons) as recorded in the JWS of Planning Experts dated 16 May 2023.

H. OTHER MATTERS

[139] I noted the following matters as being of interest to the Court during the resumed hearing:

Do the specified reduction and NRAT consent pathways make Table 14.2 redundant?

[140] I do not consider that the alternative pathways make Table 14.2 redundant. What makes Table 14.2 redundant is continual change to Overseer. If the Overseer reference file method is incorporated into PC2 as I suggest, the CNLM numbers in Table 14.2 will no longer have any effect if they are in future replaced by reference file adjusted numbers. However, the numbers do provide a useful record of the starting point for any future reference file adjusted CNLMs.

[141] My understanding is that no party has sought to remove Table 14.2 or replace it completely with a reference file method (the only requested relief is to update the Table 14.2 CNLMs). Table 14.2 is the reference point for compliance for new IFLU under Rules 14-3 and 14-4.

[142] In addition, Professor Horne discusses in his evidence the fact that compliance with Table 14.2 may prove to be more attractive to IFLU farmers in some circumstances.⁵⁰ That is because this consent pathway offers a longer consent duration and a less compressed (Year 10, Year 20) timeframe for required reductions, compared to the alternative pathways. Under the NRAT, reductions have to be in place at the time of lodging consent and, under the % reduction pathway, reductions must be implemented within two years of the grant of consent. Table 14.2 will continue to have relevance for these reasons.

⁵⁰ Sixth Statement of Evidence, David Horne, 17 May 2024, from para 50.

Would a requirement for Overseer outputs be useful in garnering information about land use practices and nitrogen leaching for use in future catchment planning?

- [143] I have discussed this question with Maree Patterson (who is responsible for managing the water quality modelling work for Oranga Wai). I understand from her, and from my own reading of the documentation supporting the draft modelling work done to date, that there is no verified regional data on nitrogen leaching rates from pastoral land use. For that reason, the modelling is using data drawn from national scale information sources, calibrated with measured in-river soluble inorganic nitrogen. Any Overseer-derived nitrogen leaching estimates for individual IFLU generated through PC2 consents would only provide data for the targeted water management sub-zones, but it would be helpful in verifying national-sourced assumptions.
- [144] The greater value would, in my view, be in understanding the efficacy of on-farm GMPs and BMPs. This could inform decisions about the regulatory settings for IFLU and other farming through hearings of submissions on the future freshwater planning instrument. If endorsed as I propose, PC2 would require applications for consent under the Table 14.2 and % reduction pathways to include Overseer outputs to support their applications.
- [145] The modelling work for the Oranga Wai (freshwater planning instrument) is currently under way. Any data gleaned from the PC2 consenting process would be too late to assist this current work. I discuss later in this statement the Council's current programme for publicly notifying the Oranga Wai freshwater planning instrument no later than early 2027. The current legislative requirement is that hearings must be concluded within two years (i.e. perhaps first quarter of 2029). Given the time that will have elapsed before hearings are held, the Oranga Wai water quality modelling work it may need to be updated or supplemented to address issues arising in submissions. Any Overseer information gleaned from PC2 would be helpful to that work (if undertaken).

Consent duration

- [146] All planners agree that consents granted under any alternative pathway should be limited to ten years duration. Consents issued under the Table 14.2 pathway are not currently limited in this way and DV-PC2 does not propose to limit Table 14.2 consents to ten years. The One Plan's approach is that decisions about consent duration for consents sought under table 14.2 are made in terms of the policies in Chapter 12 of the One Plan and there are no particular restrictions there for IFLU consents.
- [147] I do not recall that any submissions requested a duration limit for Table 14.2 consents. It is not a matter of contention in any appeals.
- [148] Mr Scott proposes that the maximum ten year duration is included as a requirement in the part of Policy 14-6 that specifies the matters that must be imposed on IFLU consents. I understood that duration was a particular concern of the appellants. I have included this specification, in an earlier clause of Policy 14-6. This is where Policy 14-6 sets out the 'must-do' requirements for IFLU. Consistent with the DV-PC2 approach, I have limited duration to ten years only for the exceptions (NRAT, % reduction and discretionary activities, not Table 14.2).

Baseline for assessment of specified % reductions.

- [149] A question was raised about what the correct baseline should be for assessment.
- [150] Under the % reduction pathway, 2012/2013 is the baseline year for both CVG and pastoral IFLU. As I understand it, this was selected because it represents the period before the One Plan became operative (2014). It was also the period prior to the dates in Table 14.2 of the One Plan when the IFLU rules would become effective in the targeted water management sub-zones (the first tranche took effect in July 2014). I also understand that it was a period when there was widespread use of Overseer by dairy IFLU and Horizons had access to an extensive DairyNZ Overseer dataset (this is the dataset referred to by Professor Horne). It was also the baseline year for the water quality modelling.

- [151] Although time has moved on since then, these remain reasons why the 2012/2013 year is still relevant for the % reduction pathways, and particularly for dairy IFLU. Improvements implemented by individual IFLU since 2012/2013 are accounted for. Any reductions in nitrogen leaching since the baseline year are recognised and IFLU are not penalised for having made improvements.

Can consent conditions on IFLU consents can impose requirements beyond the term of the consent?

- [152] This is largely a legal question I suspect. However, I offer a planning perspective on how consents may 'play out'. Consents granted under Rules 14-1 to 14-4 are combined land use and discharge consents. The framing of the rules refers to land use (s. 9 of the Act) and associated discharges (s. 15 of the Act). They cannot be granted for unlimited duration (the Act limits duration for discharge consents to a maximum of 35 years). It is proposed that PC2 will impose a much shorter duration (maximum ten years) for those pathways where the CNLM in Table 14.2 are exceeded
- [153] Consent holders are able to apply, under s. 124 of the Act, prior to expiry of the consent, to continue the consent until a new consent is determined provided the consent holder has lodged an application for a new consent within specified time frames. On that basis, a consent granted under PC2 could endure for longer than the specified expiry date, provided the consent holder has made the necessary application to renew the consent. In this circumstance, the conditions of the consent would continue to limit the consent beyond the expiry date. However, it is my opinion that all conditions of consent should require actions that can be implemented within the term of the consent and not rely on or impose additional actions undertaken beyond the expiry date. As I have already explained, the conditions will continue to prevail beyond the expiry date if the terms of s. 124 are met.
- [154] It is my expectation that applications for consent lodged after a ten year duration will be made under the rules of the future freshwater planning instrument (depending on the intersection of consent expiry date and the timing of the freshwater planning instrument process).

I. S. 32AA EVALUATION CRITERIA

[155] In my Evidence⁵¹ I set out the matters I considered relevant for the purpose of a s. 32AA evaluation. These include:⁵²

- (a) The extent to which the objectives of PC2 are the most appropriate way to achieve the purpose of the RMA;
- (b) The extent to which the provisions are the most appropriate to achieve the objectives of PC2 (in particular, to what extent will the provisions drive land use practice changes that deliver water quality improvements in degraded water management sub-zones);
- (c) Extent to which the provisions give effect to the RPS and are the most appropriate way to achieve the relevant objectives;⁵³
- (d) Efficiency of the provisions in achieving the relevant objectives;
- (e) Effectiveness of the provisions in achieving the relevant objectives, including whether they are able to be practically implemented?
- (f) Environmental, economic, social, cultural benefits anticipated from implementation of the proposal, including whether benefits can be quantified;
- (g) Opportunities for economic growth and employment arising from the proposal;
- (h) Environmental, economic, social, cultural costs anticipated from implementation of the proposal, including whether costs can be quantified;
- (i) Risk of acting or not acting where information is uncertain or insufficient;

⁵¹ Statement of Evidence, Christine Foster, 7 October 2023, page 97 onwards.

⁵² Statement of Evidence, Christine Foster, 7 October 2023, para 296 and 297.

⁵³ Noting the obligation in s 67 (3) (c) that a regional plan must give effect to the RPS.

- (j) The extent to which the proposal will assist the Council to give effect to its s 30 functions;
- (k) The extent to which the proposal will give effect to the NPS-FM, including whether it will align with, or create potential conflicts with, the NPS-FM; and
- (l) The extent to which the proposal will give effect to the NZCPS in the coastal marine area downstream of water bodies in the targeted water management sub-zones.

[156] Mr Scott adopts the same (above) s. 32AA evaluation criteria in Attachment 'B' to his primary evidence.⁵⁴ Mr Carlyon also agrees that my listed matters (above) are the relevant matters for evaluation.⁵⁵ No other evidence has sought to refute or expand the list of evaluation criteria I proposed. However, there has been discussion throughout the hearing of additional matters that might usefully be considered in comparing the merits of the different approaches before the Court. For example:

- (a) Whether or how the option responds to the MfE advice on the use of OverseerFM in regulation that:⁵⁶
 - (i) When using OverseerFM, output numbers should not be used as absolute numbers.
 - (ii) Regulators should continue to use a range of tools and evidence sources when assessing nutrient loss across farms and catchments (referred to as 'a multi-evidence approach').
- (b) Will the assessment method adopted by the option generate outputs that are:

⁵⁴ Statement of Evidence, Mike Scott, 6 November 2023, Attachment B.

⁵⁵ Statement of Evidence, Gregory Carlyon, 6 November 2023, para 16.4.

⁵⁶ I note that MfE has published an updated report (*Responding to the OVERSEER model redevelopment review: a guide for Councils, April 2024, pages 8-9*) that confirms the advice given in 2023 that Overseer outputs should not be used as absolute numbers.

- (i) certain and unambiguous;
 - (ii) able to be consistently applied;
 - (iii) verifiable (able to be interrogated);
 - (iv) measurable;
 - (v) able to show change in relation to a baseline;
 - (vi) evidence based using best available information;
 - (vii) accessible to farmer users?⁵⁷
- (c) How will the option address the potential for undesirable long-duration legacy IFLU consents?
 - (d) To what extent will the option deliver certainty of outcome (for the environment, for the wider community, and for IFLU farmers)?
 - (e) To what extent will the option deliver equity between similar classes of IFLU?
 - (f) Will the option assist Horizons with future catchment planning?
 - (g) Will the method relied upon account for the influence of underlying biophysical characteristics on nitrogen leaching?
 - (h) Will the method relied upon be applicable to all forms of IFLU (CVG and arable cropping as well as pastoral farming)?
 - (i) Will the option drive 'in-the-paddock' practice change?

[157] I proposed four options for s. 32AA evaluation in my Evidence.⁵⁸ One of those was continuation of the operative One Plan without amendment. Mr Carlyon⁵⁹ and Mr Scott,⁶⁰ in their s. 32AA evaluations of alternative

⁵⁷ These are the criteria the farm systems experts (absent Dr Parlato and Ms Dewes) agreed at pre-mediation expert conferencing held 28 June 2022.

⁵⁸ Statement of Evidence, Christine Foster, 7 October 2024, para 292 to 294.

⁵⁹ Statement of Evidence of Greg Carlyon dated 6 November 2023, para 16.5.

⁶⁰ Supplementary Evidence of Michael Scott dated 28 March 2024, para 4.2.

provisions, have also considered the operative One Plan. My conclusion remains that this is not a reasonably practicable option because it does not address the acknowledged issues in the operative One Plan provisions. All parties appear to agree (to the best of my knowledge, no party is proposing reversion to the operative One Plan unchanged). It is usual to include a 'status quo (operative plan)' option for s. 32AA comparative purposes. However, I have not carried forward the operative One Plan 'status quo' as an option for evaluation in Appendix 2 because I am satisfied that it is not actually a reasonably practicable (i.e. workable) option. In any event, the evaluation I undertook in my Evidence confirms its poor performance against the relevant s. 32AA considerations. I have, instead, made an evaluation of each Option (1 to 4) and then compared their performance relative to each other by simply ranking them as performing well, moderately well, less well or poorly. For some criteria they are neutral. For some criteria, some options perform equally well.

[158] Having considered all of the written and oral evidence to the hearing, I now consider the following options as being available as reasonably practicable:

- (a) The Council Reply Provisions;
- (b) Mr Scott's 'Day V3 Provisions'; and
- (c) DV-PC2 (the specified reduction pathway provisions).

[159] Mr Carlyon noted⁶¹ that I have not assessed the potential for a plan change that simply updates Table 14.2. Mr Carlyon has endorsed the amended provisions proposed in Mr Scott's evidence.⁶² It is not clear whether he considers the alternative of a simple recalibration of Table 14.2 a viable option. For completeness, I have included an assessment of a simple recalibration of Table 14.2 (Option 4) and note, without surprise, that it performs poorly against the relevant s. 32AA evaluation matters.

[160] I include in **Appendix 2** to this statement an evaluation of each of the four options against the extended list of assessment criteria discussed above. I

⁶¹ Statement of Evidence of Greg Carlyon dated 6 November 2023, para 16.3.

⁶² Statement of Evidence of Greg Carlyon dated 6 November 2023, para 17.2.

draw from that evaluation the following summary of performance of the options relative to each other under each criterion. I have depicted this in a simple 'traffic light' summary format below, to provide an at-a-glance comparison.

Summary Comparison of Evaluation of Options 1 to 4 (where 'A' indicates performs well; 'B' is performs moderately well; 'C' performs less well; and 'D' performs least well)	Option 1 Council Reply	Option 2 Day V3	Option 3 Specified Reduction	Option 4 Table 14.2 Recalibrated
Achieving the PC2 objectives:	A	C	A	D
Giving effect to the RPS:	A	C	A	D
Efficiency:	A	D	B	D
Effectiveness and practicability of implementation:	A	D	B	D
Environmental, economic, social, cultural benefits and costs:	A	C	A	D
Economic growth and employment:	Neutral	Neutral	Neutral	Neutral
Risk of acting or not acting where information is uncertain or insufficient:	A	C	A	D
S. 30 functions:	A	C	A	D
Giving effect to the NPS-FM & NZCPS:	A	C	A	D
MfE advice on Overseer outputs as absolute numbers:	A	D	A	D
Will outputs be certain, consistently applied, verifiable, measurable, accessible for farmers, show relative change over time:	A	B	A	B
Potential for legacy consents:	A	C	A	D
Certainty of outcome:	A	C	A	D
Equity:	A	C	A	D
Information gathering for catchment planning:	C	A	A	C
Underlying biophysical characteristics:	A	A	B	D
Suitable for pastoral and CVG:	A	B	B	D
Driving on-farm practice change:	A	C	A	D

[161] My conclusion is that, for the reasons explained in Appendix 2, the Council Reply Provisions perform best (are most appropriate) against all relevant considerations. DV-PC2 performs less well but better than the Day V3 Provisions. As already noted, Option 4 performs poorly against all criteria. It is on this basis that I propose the Council Reply Provisions. Having said that, I acknowledge that the Council Reply Provisions have not had the benefit of discussion at the forthcoming planning conferencing (scheduled for 27 May 2024). I have an open mind as to refinements that may be suggested at conferencing that could improve the provisions or views that may alter my assessment set out in Appendix 2.

J. SOME UPDATES

The current role of freshwater farm plans in Horizons Region

[162] The Resource Management (Freshwater Farm Plans) Regulations 2023 came into force on 1 August 2023. The intention was that they would be ‘rolled out’ across New Zealand’s regions, with the order of implementation announced through Orders in Council made under s. 217C of the Resource Management Act. For Horizons region, the relevant requirements for Freshwater Farm Plans (**FFP**) commenced or will commence on the following dates:

Horizons Catchment	FFP Commencement Date:	FFP to be Submitted to Horizons by:
Rangitikei – Turakina	1 April 2024	1 October 2025
Kai Iwi and Waiopahu	1 August 2024	1 February 2026
Manawatū	1 February 2025	1 August 2026
Whanganui and Whangaehu	1 August 2025	1 February 2027
Puketoi Ki Tai	1 December 2025	1 June 2027

[163] Horizons’ Rural Advice Team has been working with farmers and farmer organisations to develop standardised requirements ready for the commencement and plan submission dates. However, since the change of Government last year, the coalition Government has been reconsidering the

FFP requirements. On 16 April 2024, the coalition Government announced that it intends to improve the FFP system and that current requirements to complete FFPs could be paused in the meantime. There remains uncertainty, at the time of writing this evidence, about exactly what will be required of FFPs and by when.

[164] However, as I understand it, for now, Horizons is continuing its work to prepare for implementation of FFPs if/when the requirements and timing are confirmed. For example, it has been developing catchment context and spatial information to assist farmers (required by the Regulations) to assist farmers in the Rangitikei – Turakina catchment to prepare their FFPs to meet the 1 October 2025 submission date for that catchment. At a meeting on 26 March 2024 the Council also considered recommendations from officers for the appointment of certifiers and auditors of FFPs. Horizons is required to appoint at least one certifier by 1 July 2024.

[165] Anticipating the advent of FFPs, DV-PC2 amended the definition of NMP to clarify that a NMP could be a component of a certified FFP. A FFP is a plan that encompasses more farm practices than just nutrient management. It was, and still is, envisaged that a NMP could be a chapter in a FFP but the detail of what that looks like is not entirely clear at the moment. However, a NMP is not a FFP and it is not intended that the PC2 provisions will expect NMPs to perform the role of FFPs.

Plan Amendment 3 – Compliance with National Planning Standards format

[166] As signalled in my fifth statement of evidence, the Council has made amendments to the One Plan to comply with the format and structure requirements of the National Planning Standards.

[167] The placement of Chapters 5 and 14 has changed. I include in Appendix 3 to this statement an index which ‘translates’ the current One Plan chapter numbering into the National Planning Standards structure and numbering format. Chapter 5 has become ‘RPS-LF-Land and Freshwater’ (‘LF-FW’). Policy 5-8 has become Policy ‘LF-FW-P11’. Methods 5-12 and 5-13 will be re-numbered ‘LF-FW-M19’ and ‘LF-FW-M20’. Policies 14-3, 14-5 and 14-6 become Policies ‘LF-FW-P6’, ‘LF-FW-P8’ and ‘LF-FW-P9’. Rules 14-1, 14-2 and

14-2A become Rules in the 'RP-LF-LW-R14', 'RP-LF-LW-R17' series. I am not entirely sure how Rule 14-2A will be treated but I expect it will be assigned a unique number in the 'RP-LF-LW-R' series.

[168] I include in Appendix 4 the Plan Amendment 3 version of Chapter 5 (unchanged by PC2). In Appendix 5 I include the Plan Amendment 3 version of Chapter 14 (unchanged by PC2).

[169] None of the defined terms used in PC2 are amended by Plan Amendment 3. There is a guideline accompanying Plan Amendment 3 that explains why some of the defined terms used in PC2 have not been amended by Plan Amendment 3. The One Plan definitions of 'dairy farming', 'commercial vegetable growing', 'cropping', and 'intensive sheep and beef farming' are subsets of the National Planning Standards defined term 'primary production'. The One Plan and PC2 do not use, or need to use, the expression 'primary production' in the same context, so it is not necessary to make any change to the definitions for the purposes of PC2. I have included the explanation of definitions in Appendix 6 to this statement.

[170] I have not provided a set of proposed provisions featuring the National Planning Standards numbering. I thought that would be too confusing at this stage, given the extent of dispute remaining in the provisions and the familiarity of the Court and parties with the language we have been using to date. The exercise of assigning new National Planning Standards could be completed relatively quickly once the Court has determined the content of the provisions. I would be happy to assist in this, at that point, if necessary.

Update on Oranga Wai Freshwater Planning Programme

[171] I thought it might be useful to the Court to provide an update on Council's Oranga Wai (freshwater planning instrument) process, in light of the time extension granted by recent changes to the Act.

[172] The time frame for public notification of the Council's first freshwater planning instrument, under s. 80A of the Act, was originally 31 December

2024. That date was extended in August 2023 to 31 December 2027.⁶³ Since then, the Council has reviewed the progress it has made with technical investigations to support the freshwater planning instrument and engagement with tangata whenua and stakeholders and reviewed its programme. At a meeting on 30 April 2024, the Council committed to having all substantive work completed to enable public notification late 2026 or early 2027, and earlier if achievable.

[173] Accordingly, the window of time within which PC2 will prevail is extended somewhat compared with what had been assumed at the resumed hearing in February 2024.

17 May 2024

Christine Anne Foster

⁶³ By s. 6 of the Resource Management (Natural and Built Environment and Spatial Planning Repeal and Interim Fast-track Consenting) Act 2023.

Appendix 1

KEY: underlined text represents additions & ~~strikethrough~~ represents deletions

Decisions Version PC2 Wording (DV-PC2) (showing changes tracked onto original One Plan)	Horizons Regional Council Reply Provisions (tracked onto clean version of DV-PC2)	Day V3 Provisions (attached to Supplementary Evidence of Michael Scott dated 28 March 2024)
Policy 5-8: Management and rRegulation of intensive farming <i>land</i>[^] use activities affecting groundwater and surface <i>water</i>[^] quality <u>In order to give effect to Policy-Policies 5-3, 5-4, 5-5, 5-6 and 5-7, the effects of intensive farming <i>land</i>[^] use activities on groundwater and surface <i>water</i>[^] quality must be managed in the following manner:</u>	Policy 5-8: Management and regulation of intensive farming <i>land</i>[^] use activities affecting groundwater and surface <i>water</i>[^] quality In order to give effect to Policies 5-3, 5-4, 5-5, 5-6 and 5-7, the effects of intensive farming <i>land</i>[^] use activities on groundwater and surface <i>water</i>[^] quality must be managed in the following manner:	Policy 5-8: Management and rRegulation of intensive farming <i>land</i>[^] use activities affecting groundwater and surface <i>water</i>[^] quality In order to give effect to Policies 5-3, 5-4, 5-5, 5-6 and 5-7, the effects of intensive farming <i>land</i>[^] use activities on groundwater and surface <i>water</i>[^] quality must be managed in the following manner:
(a) Nutrients (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 (B) <u>will contribute to implementation of the strategy for surface <i>water</i>[^] 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.</u> (B) will achieve the strategies for surface <i>water</i>[^] 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. (C) recognise the productive capability of <i>land</i>[^] in the <i>Water Management Sub-zone</i>* (D) are <u>achievable</u> achieved on most farms using <i>good management practices</i>* and <u><i>best management practices</i>*</u> (E) 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.	(a) Nutrients (i) Nitrogen leaching maximums must be established in the regional plan which: (A) take into account all the sources of nitrogen in the catchment (B) will contribute to implementation of the strategy for surface <i>water</i>[^] 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. (C) recognise the productive capability of <i>land</i>[^] in the <i>Water Management Sub-zone</i>* (D) are achieved on most farms using <i>good management practices</i>* and <i>best management practices</i>* (E) provide for appropriate timeframes for achievement.	(a) Nutrients (i) Nitrogen leaching maximums must be established in the regional plan which: (A) take into account all the <u>non-point</u> sources of nitrogen in the catchment (B) will contribute to implementation of the strategy <u>achieve the strategies</u> for surface <i>water</i>[^] 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. (C) recognise the productive capability of <i>land</i>[^] in the <i>Water Management Sub-zone</i>* (D) are achieved <u>achievable</u> on most farms using <i>good management practices</i>* and <i>best management practices</i>* (E) provide for appropriate timeframes for achievement <u>where large changes to management practices or high levels of investment are required to achieve the nitrogen leaching maximums.</u>
(ii) Existing intensive farming <i>land</i>[^] use activities must be regulated in targeted <i>Water Management Sub-zones</i>* to achieve the nitrogen leaching maximums specified in (i) <u>except as provided for in (iia) and (iib) below.</u>	(ii) Existing intensive farming <i>land</i>[^] use activities must be regulated in targeted <i>Water Management Sub-zones</i>* to achieve the nitrogen leaching maximums specified in (i) except as provided for in (iia) and (iib) below.	(ii) Existing intensive farming <i>land</i>[^] use activities must <u>generally</u> be regulated in targeted <i>Water Management Sub-zones</i>* to achieve the nitrogen leaching maximums specified in (i) except as provided for in (iia) and (iib) below.
(iia) <u>Existing intensive farming <i>land</i>[^] use activities which do not comply with (ii) must be regulated to reduce nitrogen leaching loss from the <i>land</i>[^] to the maximum extent reasonably practicable in the shortest feasible timeframe</u>	(iia) Existing intensive farming <i>land</i>[^] use activities which do not comply with (ii) must be regulated to reduce nitrogen leaching loss from the <i>land</i>[^] to the maximum extent reasonably practicable in the shortest feasible timeframe by	(iia) <u>For e</u>Existing intensive farming <i>land</i>[^] uses activities which that do not achieve the nitrogen leaching maximums established under (i), the regional plan must provide that any consents granted: do not comply with (ii) must be regulated

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which is in excess of the nitrogen leaching maximums established under (a) by implementing measures, including good management practice*, and additional measures, to minimise the degree of non-compliance, having regard to: (A) the contribution of the nitrogen leaching loss from the land^ to cumulative nitrogen leaching loss within the Water Management Sub- zone*; (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 specified in (a)(i) and the timing of planned reductions in nitrogen leaching loss from the land^; (D) the feasibility, practicality, and cost of implementing measures to achieve achieving the nitrogen leaching maximums specified in (a)(i) having regard to the land use capability class* of the land^; and (E) 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.	implementing measures, including <i>good management practice*</i> and additional measures, having regard to: (A) the contribution of the nitrogen leaching loss from the land^ to cumulative nitrogen leaching loss within the <i>Water Management Sub- zone*</i>; (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 specified in (a)(i) and the timing of planned reductions in nitrogen leaching loss from the land^; (D) the feasibility, practicality, and cost of implementing measures to achieve the nitrogen leaching maximums specified in (a)(i) having regard to the <i>land use capability class*</i> of the land^; and (E) 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.	to reduce nitrogen leaching loss from the land^ to the maximum extent reasonably practicable in the shortest feasible timeframe by implementing measures, including good management practice* and additional measures, having regard to: (A) take into account all the non-point sources of nitrogen in the catchment (B) will achieve the strategies 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 (C) recognise the productive capability of land^ in the Water Management Sub-zone* (D) are of limited duration (E) the contribution of the nitrogen leaching loss from the land^ to cumulative nitrogen leaching loss within the Water Management Sub- zone*; (F) the actual and potential effects of the nitrogen leaching loss from the land^ on downstream groundwater and surface water^ quality; (G) the extent of non-compliance with the nitrogen leaching maximums specified in (a)(i) and the timing of planned reductions in nitrogen leaching loss from the land^; (H) the feasibility, practicality, and cost of implementing measures to achieve the nitrogen leaching maximums specified in (a)(i) having regard to the land use capability class* of the land^; and
(iib) Existing intensive farming land^ use activities which do not comply with (ii) but which demonstrate are intended to the intention to 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 there is no increase in the exceedance of the nitrogen leaching loss from the existing intensive farming land^ use activity during that period. maximums established under (a).	(iib) Existing intensive farming land^ use activities which do not comply with (ii) but which demonstrate 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 period not exceeding five years in order to enable that transition and only where there is no increase in the nitrogen leaching loss from the existing intensive farming land^ use activity during that period.	(iib) Existing intensive farming land^ use activities which do not comply with (ii) but which demonstrate the intention to transition to an alternative non-intensive farming land^ use must be regulated to ensure that they are able to continue for a period not exceeding five years in order to enable that transition and only where there is no increase in the nitrogen leaching loss from the existing intensive farming land^ use activity during that period.
(iii) New intensive farming land^ use activities must be regulated throughout the Region 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).	(iii) New intensive farming land^ use activities must be regulated throughout the Region to achieve the nitrogen leaching maximums specified in (i).

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(b) Faecal contamination (i) Those persons carrying out existing intensive farming <i>land</i>[^] use activities in the targeted <i>Water Management Sub-zones</i>[*] listed in Table 14.1 or new conversions to intensive farming <i>land</i>[^] use activities anywhere in the Region must be required, amongst other things, to: (A) prevent cattle access to some surface <i>water bodies</i>[^] and their <i>beds</i>[^] (B) mitigate faecal contamination of surface <i>water</i>[^] from other entry points (e.g., race run-off from races, feed pads and paddocks) (C) establish programmes for implementing any required changes.	(b) Faecal contamination (i) Those persons carrying out existing intensive farming <i>land</i>[^] use activities in the targeted <i>Water Management Sub-zones</i>[*] listed in Table 14.1 or new conversions to intensive farming <i>land</i>[^] use activities anywhere in the Region must be required, amongst other things, to: (A) prevent cattle access to some surface <i>water bodies</i>[^] and their <i>beds</i>[^] (B) mitigate faecal contamination of surface <i>water</i>[^] from other entry points (e.g., run-off from races, feed pads and paddocks) (C) establish programmes for implementing any required changes.	(b) Faecal contamination (i) Those persons carrying out existing intensive farming <i>land</i>[^] use activities in the targeted <i>Water Management Sub-zones</i>[*] listed in Table 14.1 or new conversions to intensive farming <i>land</i>[^] use activities anywhere in the Region must be required, amongst other things, to: (A) prevent cattle access to some surface <i>water bodies</i>[^] and their <i>beds</i>[^] (B) mitigate faecal contamination of surface <i>water</i>[^] from other entry points (e.g., run-off from races, feed pads and paddocks) (C) establish programmes for implementing any required changes.
(c) Sediment (i) In those <i>Water Management Sub-zones</i>[*] where agricultural <i>land</i>[^] use activities are the predominant cause of elevated sediment levels in surface <i>water</i>[^], 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 <i>accelerated erosion</i>[*], as described in Chapter 4.	(c) Sediment (i) In those <i>Water Management Sub-zones</i>[*] where agricultural <i>land</i>[^] use activities are the predominant cause of elevated sediment levels in surface <i>water</i>[^], 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 <i>accelerated erosion</i>[*], as described in Chapter 4.	(c) Sediment (i) In those <i>Water Management Sub-zones</i>[*] where agricultural <i>land</i>[^] use activities are the predominant cause of elevated sediment levels in surface <i>water</i>[^], 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 <i>accelerated erosion</i>[*], as described in Chapter 4.
(d) <u>Good management practices</u>[*] (i) <u>All intensive farming <i>land</i>[^] use activities must be regulated to, as a minimum, implement <i>good management practices</i>[*] to manage nutrient leaching and run-off, faecal contamination, and sediment losses.</u>	(d) <u>Good management practices</u>[*] (i) All intensive farming <i>land</i>[^] use activities must be regulated to, as a minimum, implement <i>good management practices</i>[*] to minimise manage nutrient leaching and run-off, faecal contamination, and sediment losses.	(d) <u>Good management practices</u>[*] (i) All intensive farming <i>land</i>[^] use activities must be regulated to, as a minimum, implement <i>good management practices</i>[*] to manage nutrient leaching and run-off, faecal contamination, and sediment losses.
Method 5-12 Innovative Land Use Research 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 mitigation options) for intensive farming land users that will have difficulty in reducing nitrogen loss to the extent necessary to achieve the nitrogen leaching maximums specified in the One Plan rules. achieving the cumulative nitrogen leaching maximums[*] (refer Table 14.1).</u>	Method 5-12 Innovative Land Use Research Description 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 mitigation options) for intensive farming land users that will have difficulty in reducing nitrogen loss to the extent necessary to achieve the nitrogen leaching maximums specified in the One Plan rules.	Method 5-12 Innovative Land Use Research Description 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 mitigation options) for intensive farming land users that will have difficulty in reducing nitrogen loss to the extent necessary to achieve the nitrogen leaching maximums specified in the One Plan rules.

Decisions Version PC2 Wording (DV-PC2) (showing changes tracked onto original One Plan)	Horizons Regional Council Reply Provisions (tracked onto clean version of DV-PC2)	Day V3 Provisions (attached to Supplementary Evidence of Michael Scott dated 28 March 2024)
<u>Horizons will provide assistance through providing data and information that will assist in the identification and evaluation of innovative nitrogen loss 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.</u>	Horizons will provide assistance through providing data and information that will assist in the identification and evaluation of innovative nitrogen loss mitigations or land use options and participating in any evaluative work as appropriate. Who Local communities, including tangata whenua, rural and other sector groups, Territorial Authorities, and Regional Council (in consultation with tangata whenua). Links to Policy This method implements Policies 5-7 and 5-8. Target Advice and assistance is available for landowners and tangata whenua in the Region regarding land use management practices.	Horizons will provide assistance through providing data and information that will assist in the identification and evaluation of innovative nitrogen loss mitigations or land use options and participating in any evaluative work as appropriate. Who Local communities, including tangata whenua, rural and other sector groups, Territorial Authorities, and Regional Council (in consultation with tangata whenua). Links to Policy This method implements Policies 5-7 and 5-8. Target 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 <u>Horizons will collate and publish information regarding Overseer version changes and the identification and evaluation of nutrient management models other than Overseer that may be more appropriate for calculation of on-farm nutrient losses. 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>	Method 5-13 Provision of Information Description Horizons will collate and publish information regarding Overseer and the identification and evaluation of nutrient management models and nitrogen loss assessment methods other than Overseer that may be more appropriate for calculation of on-farm nutrient losses. Horizons will register and maintain Overseer reference files* for the synthetic farm systems simulated in Table 14.2. Horizons will make publicly available the estimated nitrogen leaching loss values for these synthetic farm systems, including equivalent 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 intensive farming land^ use activities 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.	Method 5-13 Provision of Information Description Horizons will collate and publish information regarding Overseer and the identification and evaluation of nutrient management models other than Overseer that may be more appropriate for calculation of on-farm nutrient losses. 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.

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Who Regional Council, tangata whenua, rural sector groups, and nutrient management model providers.	Who Regional Council, tangata whenua, rural sector groups, and nutrient management model providers.	Who Regional Council, tangata whenua, rural sector groups, and nutrient management model providers.
Links to Policy This method implements Policy 5-8.	Links to Policy This method implements Policy 5-8.	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 Cumulative Nitrogen Leaching Maximums* 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. - 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. - A list of nutrient management models appropriate for use in intensive farming land is maintained on Horizons' website.	Target Horizons will update Table 14.2 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 Cumulative Nitrogen Leaching Maximums* 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 (including updated nitrogen leaching loss estimates resulting from Overseer version changes). - The Overseer reference files* will be detailed in Schedule [ZA] to the One Plan. - 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 any nitrogen leaching limits specified in consent conditions, to ensure comparability between Overseer estimates over time. - A list of nutrient management models appropriate for use in intensive farming land is maintained on Horizons' website.	Target - Horizons will <u>have publicly available information regarding OVERSEER and other nutrient management models to assist applicants. update Table 14.2 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 Cumulative Nitrogen Leaching Maximums* in Table 14.2.</u> Horizons will maintain representative Overseer farm system reference files and make their base files and nitrogen leaching loss estimates available on its website. 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. - A list of nutrient management models appropriate for use in intensive farming land is maintained on Horizons' website.
		Method 5-14 Reference file system Description The aim of this method is to set up, maintain, use, and make publicly available an OVERSEER reference file system. This will be achieved by: - The Regional Council compiling baseline reference files using OVERSEER version [insert as used for final updated Table 14.2] which represent typical farm systems across the region with nitrogen leaching that meets the <u>cumulative nitrogen leaching maximums</u> on each of LUC class 1-8 land. - The Regional Council holding the license for OVERSEER for these baseline reference files and making them (and the

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		<u>features that were used as inputs in OVERSEER) publicly available on its website or as part of the regional plan.</u> • <u>Each time a new version of OVERSEER is released, the Regional Council determining the nitrogen leaching loss numbers for each reference file and making these publicly available on its website. The figure determined for the reference file for each of LUC class 1-8 represents what the cumulative nitrogen leaching maximum would be for that LUC class under the new version of OVERSEER; they represent the reference file system equivalents of the cumulative nitrogen leaching maximums for that new version of OVERSEER.</u> • <u>The Regional Council using the reference file system, and the cumulative nitrogen leaching maximum equivalents determined using that system, to assess applications for intensive farming land uses where the nitrogen leaching losses in those applications have been estimated using a different, newer version of OVERSEER to that used to derive the cumulative nitrogen leaching maximums.</u> • <u>The Regional Council using the reference file system for compliance monitoring of resource consents for intensive farming land uses where any nitrogen leaching losses are being estimated using a different, newer version of OVERSEER than that used to determine any nitrogen leaching limits specified in the conditions of consent.</u> • <u>The Regional Council to consider whether a plan change is required to update Table 14.2 using the reference file system each time OVERSEER is updated.</u> <u>Who</u> Regional Council, OVERSEER, and farm systems technical experts. <u>Links to Policy</u> This method implements Policy 5-8 <u>Targets</u> A process is built into the One Plan which will: • <u>Manage the implications to the cumulative nitrogen leaching maximums of OVERSEER version changes.</u> • <u>Enable applicants to determine if they do or do not comply with the cumulative nitrogen leaching maximums in situations where nutrient leaching is estimated using a</u>

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		<u>different version of OVERSEER than used to derive the cumulative nitrogen leaching maximums</u> • <u>Ensure that applications, conditions and enforcement are based on leaching estimates that are fair, transparent and current.</u>
Policy 14-3: Industry-based standards <i>Good management practices</i>* <u>When making decisions on <i>resource consent</i>[^] applications, and setting consent conditions, for activities affecting groundwater and surface <i>water</i>[^] quality, the Regional Council must have regard to <i>good management practices</i>*, and additional measures 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 <i>good management practices</i>* 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 the relevant <i>water management sub-zone</i>.*.</u>	Policy 14-3: <i>Good management practices</i>* When making decisions on <i>resource consent</i>[^] applications, and setting consent conditions, for activities affecting groundwater and surface <i>water</i>[^] quality, the Regional Council must <u>require the implementation of <i>have regard to good management practices</i>* (and additional measures where necessary) to reduce for decreasing</u> nitrogen leaching, to the extent that those <i>good management practices</i>* and measures address the matters in Policies 14-1, 14-2, 14-4, 14-5 and 14-6 and contribute to decreasing contaminant loads in the relevant <i>water management sub-zone</i>*.	Policy 14-3: <i>Good management practices</i>*-<i>Industry-based standards</i> <u>When making decisions on <i>resource consent</i>[^] applications, and setting consent conditions, for activities affecting groundwater and surface <i>water</i>[^] quality, the Regional Council 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[^] must have regard to <i>good management practices</i>*, and additional measures for decreasing nitrogen leaching, to the extent that those <i>good management practices</i>* and measures standards address the matters in Policies 14-1, 14-2, 14-4, and 14-5, and 14-6 and contribute to decreasing contaminant loads in the relevant <i>water management sub-zone</i>.*.</u>
		Policy 14-X: Ensuring consistency between cumulative nitrogen leaching maximums* and farm nitrogen leaching estimates <u>In the event that the OVERSEER version used to derive the cumulative nitrogen leaching maximums* in Table 14-2 is different to the version used to estimate on-farm nitrogen leaching, decision-makers must assess estimated on-farm nitrogen leaching against the equivalent maximums for any relevant land use capability class* produced by the reference file system for that different version of OVERSEER.</u>
Policy 14-5: Management of intensive farming <i>land</i>[^] uses In order to give effect to Policy 5-7 and Policy 5-8, intensive farming <i>land</i>[^] use activities affecting groundwater and surface <i>water</i>[^] quality must be managed in the following manner:	Policy 14-5: Management of intensive farming <i>land</i>[^] uses In order to give effect to Policy 5-7 and Policy 5-8, intensive farming <i>land</i>[^] use activities affecting groundwater and surface <i>water</i>[^] quality must be managed in the following manner:	Policy 14-5: Management of intensive farming <i>land</i>[^] uses In order to give effect to Policy 5-7 and Policy 5-8, intensive farming <i>land</i>[^] use activities affecting groundwater and surface <i>water</i>[^] quality must be managed in the following manner:
(a) The following land uses have been identified as intensive farming <i>land</i>[^] uses: (i) <i>Dairy farming</i>*	(a) The following land uses have been identified as intensive farming <i>land</i>[^] uses: (i) <i>Dairy farming</i>*	(a) The following land uses have been identified as intensive farming <i>land</i>[^] uses: (i) <i>Dairy farming</i>*

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(ii) <i>Commercial vegetable growing*</i> (iii) <i>Cropping*</i> (iv) <i>Intensive sheep and beef*</i>	(ii) <i>Commercial vegetable growing*</i> (iii) <i>Cropping*</i> (iv) <i>Intensive sheep and beef*</i>	(ii) <i>Commercial vegetable growing*</i> (iii) <i>Cropping*</i> (iv) <i>Intensive sheep and beef*</i>
(b) The intensive farming <i>land</i> [^] uses identified in (a) must be regulated where: (i) They are existing (ie., established prior to the Plan having legal effect) intensive farming <i>land</i> [^] uses (ie. established prior to the date specified in Table 14.1 on which Rule 14-1 had legal effect¹), in the targeted <i>Water Management Sub-zones*</i> identified in Table 14.1. (ii) They are new (ie. established after the Plan has legal effect) intensive farming <i>land</i> [^] uses, in all <u>any <i>Water Management Sub-zones*</i> in the Region (that is, established after the date the Plan had legal baseline growing period*, effect, which is 24 August 2010 for dairy farming* and 9 May 2013 for commercial vegetable growing*, cropping* and intensive sheep and beef*²</u> .	(b) The intensive farming <i>land</i> [^] uses identified in (a) must be regulated where: (i) They are existing intensive farming <i>land</i> [^] uses (i.e. established prior to the date specified in Table 14.1 on which Rule 14-1 had legal effect ³), in the targeted <i>Water Management Sub-zones*</i> identified in Table 14.1. (ii) They are new intensive farming <i>land</i> [^] uses, in any <i>Water Management Sub-zones*</i> in the Region (that is, established after the date the Plan had legal effect, which is 24 August 2010 for <i>dairy farming*</i> and 9 May 2013 for <i>commercial vegetable growing*, cropping* and intensive sheep and beef*⁴</i>).	(b) The intensive farming <i>land</i> [^] uses identified in (a) must be regulated where: (i) They are existing intensive farming <i>land</i> [^] uses (i.e. established prior to the date specified in Table 14.1 on which Rule 14-1 had legal effect ⁵), in the targeted <i>Water Management Sub-zones*</i> identified in Table 14.1. (ii) They are new intensive farming <i>land</i> [^] uses, in any <i>Water Management Sub-zones*</i> in the Region (that is, established after the date the Plan had legal effect, which is 24 August 2010 for <i>dairy farming*</i> and 9 May 2013 for <i>commercial vegetable growing*, cropping* and intensive sheep and beef*⁶</i>).
(c) Nitrogen leaching maximums have been established in Table 14.2.	(c) Nitrogen leaching maximums have been established in Table 14.2.	(c) Nitrogen leaching maximums have been established in Table 14.2.
(d) Except as provided for in Policy 14-6(d), Existing intensive farming <i>land</i> [^] uses regulated in accordance with (b)(i) must be managed to ensure that the leaching of nitrogen from those <i>land</i> [^] uses does not exceed <u>one of the parameters specified in (i), (ii) or (iii) below:</u>	(d) Except as provided for in Policy 14-6(eg), existing intensive farming <i>land</i> [^] uses regulated in accordance with (b)(i) must be managed to ensure that the leaching of nitrogen from those <i>land</i> [^] uses does not exceed one of the parameters specified in <u>(d) (i), (ii), or (iii) or (iv) below:</u>	(d) Except as provided for in Policy 14-6(d), Existing intensive farming <i>land</i> [^] uses regulated in accordance with (b)(i) must be managed to ensure that the <u>projected long-term average</u> leaching of nitrogen from those <i>land</i> [^] uses does not exceed <u>one of the parameters specified in (i), (ii) or (iii) below:</u>
(i) the <i>cumulative nitrogen leaching maximum*</i> values for each year contained in Table 14.2 unless the circumstances in Policy 14-6 apply; or	(i) the <i>cumulative nitrogen leaching maximum*</i> values for each year contained <u>specified</u> in Table 14.2 <u>or the equivalent</u>	(i) the <i>cumulative nitrogen leaching maximum*</i> values for each year contained in Table 14.2 <u>where the OVERSEER version used to estimate nitrogen leaching is the same as the version</u>

¹ ~~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**.~~

² ~~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.~~

³ ~~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**.~~

⁴ ~~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.~~

⁵ ~~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**.~~

⁶ ~~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.~~

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(ii) <u>the lesser of 80% of the <i>land's nitrogen leaching baseline*</i> or the 75th percentile nitrogen leaching loss for the relevant <i>water management zone*</i>; or</u> (iii) <u>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 <i>land</i>[^] of 35% relative to the <i>baseline growing period*</i>;</u> provided that, in (ii) and (iii) above, the application for consent is lodged no later than 31 December 2022.	<u>Overseer reference file* outputs using the applicable version of Overseer; or</u> (ii) <u>the the <i>nitrogen leaching risk limit*</i> specified in Table 14.2A or Table 14.2B as applicable; or</u> (iii) <u>for commercial vegetable growing*, a minimum reduction in cumulative nitrogen leaching loss from the <i>land</i>[^] of 35% relative to the <i>baseline growing period*</i> and the growing area does not exceed the area of commercial vegetable growing* of the <i>baseline commercial growing period*</i>; or</u> (iv) <u>for other intensive farming <i>land</i>[^] uses, a minimum reduction in cumulative nitrogen leaching loss from the <i>land</i>[^] of 20% relative to the <i>nitrogen baseline*</i>; provided that the lesser of 80% of the <i>land's nitrogen leaching baseline*</i> or the 75th percentile nitrogen leaching loss for the relevant <i>water management zone*</i>; or</u> <u>for commercial vegetable growing*, the growing area does not exceed the area of commercial vegetable growing* of the <i>baseline growing period*</i> 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 <i>land</i>[^] of 35% relative to the <i>baseline growing period*</i>;</u> (v) <u>provided that, in under (ii), and (iii) and (iv) above, the application for consent is lodged no later than [a date twelve months from the operative date of PC2]; and</u> (vi) <u>under (ii) above, compliance with Table 14.2A must be achieved at the time of lodging the application and compliance with Table 14.2B must be demonstrated to be achievable no later than [a date two years from the operative date of PC2]); and</u> (vii) <u>under (iii) and (iv) above, the minimum nitrogen leaching reductions are achieved within two years of the grant of consent.</u> <u>31 December 2022.</u>	<u>used to produce the <i>cumulative nitrogen leaching maximums*</i> in Table 14.2; or</u> (ii) <u>where the OVERSEER version used to estimate nitrogen leaching is different to the version used to derive the <i>cumulative nitrogen leaching maximums*</i>, the equivalent maximums produced by the reference file system for any relevant <i>land use capability class*</i> for that different version of OVERSEER,</u> <u>unless the circumstances in Policy 14-6 apply.</u> (iii) <u>the lesser of 80% of the <i>land's nitrogen leaching baseline*</i> or the 75th percentile nitrogen leaching loss for the relevant <i>water management zone*</i>; or</u> (iv) <u>for commercial vegetable growing*, the growing area does not exceed the area of commercial vegetable growing* of the <i>baseline growing period*</i> 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 <i>land</i>[^] of 35% relative to the <i>baseline growing period*</i>;</u> provided that, in (ii) and (iii) above, the application for consent is lodged no later than 31 December 2022.
(e) New intensive farming <i>land</i>[^] uses regulated in accordance with (b)(ii) must be managed to ensure that the leaching of nitrogen from those <i>land</i>[^] uses does not exceed the <i>cumulative nitrogen leaching maximum*</i> values for each year contained in Table 14.2.	(e) New intensive farming <i>land</i>[^] uses regulated in accordance with (b)(ii) must be managed to ensure that the leaching of nitrogen from those <i>land</i>[^] uses does not exceed the <i>cumulative nitrogen leaching maximum*</i> values for each year contained in Table 14.2.	(e) New intensive farming <i>land</i>[^] uses regulated in accordance with (b)(ii) must be managed to ensure that the leaching of nitrogen from those <i>land</i>[^] uses does not exceed <u>(d)(i) or (ii) above. the <i>cumulative nitrogen leaching maximum*</i> values for each year contained in Table 14.2.</u>

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(f) Intensive farming <i>land</i> [^] uses regulated in accordance with (b) must exclude cattle from: (i) A <i>wetland</i> [^] or <i>lake</i> [^] that is a <i>rare habitat</i> [*] , <i>threatened habitat</i> [*] or <i>at-risk habitat</i> [*] . (ii) Any <i>river</i> [^] that is permanently flowing or has an <i>active bed</i> [*] width greater than 1 metre.	(f) Intensive farming <i>land</i> [^] uses regulated in accordance with (b) must exclude cattle from: (i) A <i>wetland</i> [^] or <i>lake</i> [^] that is a <i>rare habitat</i> [*] , <i>threatened habitat</i> [*] or <i>at-risk habitat</i> [*] . (ii) Any <i>river</i> [^] that is permanently flowing or has an <i>active bed</i> [*] width greater than 1 metre.	(f) Intensive farming <i>land</i> [^] uses regulated in accordance with (b) must exclude cattle from: (i) A <i>wetland</i> [^] or <i>lake</i> [^] that is a <i>rare habitat</i> [*] , <i>threatened habitat</i> [*] or <i>at-risk habitat</i> [*] . (ii) Any <i>river</i> [^] that is permanently flowing or has an <i>active bed</i> [*] width greater than 1 metre.
(g) All places where cattle cross a river that is permanently flowing or has an <i>active bed</i> [*] 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.	(g) All places where cattle cross a river that is permanently flowing or has an <i>active bed</i> [*] 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.	(g) All places where cattle cross a river that is permanently flowing or has an <i>active bed</i> [*] 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.
	(h) <u>Applications for intensive farming <i>land</i>[^] use under Policy 14-5 (d) (i), (iii) and (iv) and Policy 14-5 (e) must demonstrate compliance using the version of Overseer applicable at the date the application is determined. Where the applicable version of Overseer relied on to determine the <i>cumulative nitrogen leaching maximum</i>[*] for a <i>land</i>[^] use differs from Version [6.5.4], the applicable <i>cumulative nitrogen leaching maximum</i>[*] shall be the equivalent Overseer output(s) for the relevant <i>land use capability class</i>[*] calculated using the <i>Overseer reference files</i>[*] in Schedule [ZA] and the same version of Overseer relied on by the <i>land</i>[^] use applied for.</u>	
Policy 14-6: Resource consent decision-making for intensive farming <i>land</i>[^] uses When making decisions on <i>resource consent</i> [^] applications, and setting consent <i>conditions</i> [^] , for intensive farming <i>land</i> [^] uses the Regional Council must:	Policy 14-6: Resource consent decision-making for intensive farming <i>land</i>[^] uses When making decisions on <i>resource consent</i> [^] applications, and setting consent <i>conditions</i> [^] , for intensive farming <i>land</i> [^] uses the Regional Council must:	Policy 14-6: Resource consent decision-making for intensive farming <i>land</i>[^] uses When making decisions on <i>resource consent</i> [^] applications, and setting consent <i>conditions</i> [^] , for intensive farming <i>land</i> [^] uses the Regional Council must:
(a) Ensure the nitrogen leaching from the <i>land</i> [^] is managed in accordance with Policy 14-5.	(a) Ensure the nitrogen leaching from the <i>land</i> [^] is managed in accordance with Policy 14-5.	(a) Ensure the nitrogen leaching from the <i>land</i> [^] is managed in accordance with Policy 14-5.
(b) Ensure Require implementation of <i>good management practices</i> [*] , and additional measures where necessary, to manage nutrient leaching and run-off, faecal contamination and sediment loss, as part of any intensive farming <i>land</i> [^] use. An exception may be made to (a) for existing intensive farming <i>land</i> [^] uses in the following circumstances:	(b) Require implementation of <i>good management practices</i> [*] , and additional measures where necessary, to manage nutrient leaching and run-off, faecal contamination and sediment loss, as part of any intensive farming <i>land</i> [^] use.	(b) An exception may be made to (a) for existing intensive farming <i>land</i>[^] uses in the following circumstances: Require implementation of <i>good management practices</i> [*] , and additional measures where necessary, to manage nutrient leaching and run-off, faecal contamination and sediment loss, as part of any intensive farming <i>land</i> [^] use.

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(i) Where the existing intensive farming <i>land</i>[^] 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 <i>land</i>[^] use cannot meet year 1 <i>cumulative nitrogen leaching maximums</i>* in year 1, they shall be managed through conditions on their resource consent to ensure year 1 <i>cumulative nitrogen leaching maximums</i>* are met within 4 years. Where an exception is made to the <i>cumulative nitrogen leaching maximum</i>* the existing intensive farming <i>land</i>[^] 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.		(i) <u>to enable a transition to an alternative non-intensive <i>land</i>[^] use over a period of time not exceeding five years; or</u> (ii) <u>the exceedance of the <i>cumulative nitrogen leaching maximums</i>* is due to the calculation against Table 14-2 over-estimating nitrogen loss, as shown by the results of one or more scientifically robust models that estimate nitrogen loss and the opinion of a person who has a Certificate of Completion in Advanced Sustainable Nutrient Management from Massey University; or</u> (iii) <u>where the existing intensive <i>land</i>[^] use cannot meet:</u> • <u>the <i>cumulative leaching maximums</i>* in Table 14-2; or</u> • <u>the equivalent maximums produced using the reference file system that apply to any relevant <i>land use capability class</i>*, where a different version of OVERSEER than that used to produce the <i>cumulative nitrogen leaching maximums</i>* in Table 14.2 has been used to estimate nitrogen leaching (in accordance with Policy 14-X),</u> <u>and a trajectory of staged reductions in nitrogen leaching is demonstrated.</u>
	(c) <u>Limit the duration of consents granted under Policy 14-5 (d) (ii), (iii) and (iv) and Policy 14-6 (g) (i) to a period not exceeding ten years.</u> (d) <u>Limit the duration of consents granted under Policy 14-6 (g) (ii) to a period not exceeding five years.</u>	<u>(ba) Where resource consent is sought for an existing intensive farming land use on the basis of the exception specified in Policy 14-6(ii) or (iii) the decision-maker must:</u> (i) <u>consider the contribution of the proposal to the maintenance and enhancement of mana whenua values, including those identified in Schedule B; and</u> (ii) <u>take into account all non-point source discharges of nitrogen in the catchment; and</u> (iii) <u>consider the extent of non-compliance with the <i>cumulative nitrogen leaching maximums</i>* or the equivalent maximums produced using the reference file system and the timing of planned reductions in nitrogen leaching loss from the land; and</u> (iv) <u>make a decision consistent with having more intensive land uses on land units with higher productive capability and discouraging more intensive land uses on land units with lower productive capability, based on land use capability class*; and</u>

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		(v) <u>consider 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; and</u> (vi) <u>only grant consent if doing so aligns with the strategies for surface water quality set out in Policies 5-2, 5-3, 5-4, and 5-5, and the strategy for ground water quality in Policy 5-6; and</u> (vii) <u>have particular regard where, for commercial vegetable growing[*], the growing area does not exceed the base line growing area[*] and, within 3 years of the granting of the application, the activity will achieve a minimum reduction in cumulative nitrogen leaching loss from the land[^] of 35% relative to the base line growing area[*].</u>
	(e) <u>Ensure that any consent granted to replace or renew any existing intensive farming land[^] use consent granted prior to 22 July 2019 does not authorise nitrogen leaching loss greater than was authorised by any earlier consent.</u>	(c) <u>Where an exception is made under Policy 14-6(b) the existing intensive farming land[^] uses must be managed by consent conditions to ensure:</u> (i) <u>Good management practices to minimise the loss of nitrogen, phosphorus, faecal contamination and sediment are implemented.</u> (ii) <u>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.</u> (iii) <u>There is no increase in nutrient leaching and run-off, faecal contamination and sediment losses from the land[^].</u> (iv) <u>Resource consent is not granted for a period exceeding ten years.</u> (v) <u>For commercial vegetation growing operations that cover more than one WMSZ, that projected discharges into different WMSZs remain appropriate after providing for crop rotation.</u> (vi) <u>Any nitrogen leaching reductions required as a condition of consent are expressed as a percentage reduction from the baseline nitrogen leaching level as specified in the application.</u>

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(c) Ensure that cattle are excluded from surface water <u>water[^]</u> 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 avoided, remedied, or mitigated. In all cases, <u>the effects of</u> any unavoidable losses of nitrogen, phosphorus, faecal contamination and sediment are <u>must be</u> 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.	(f) Ensure that cattle are excluded from surface <u>water[^]</u> in accordance with Policy 14-5(f) and (g) except where landscape or geographical constraints make stock exclusion impractical. In all cases, the effects of any unavoidable losses of nitrogen, phosphorus, faecal contamination and sediment must be avoided remedied or mitigated by other works or environmental compensation.	(d) Ensure that cattle are excluded from surface <u>water[^]</u> in accordance with Policy 14-5(f) and (g) except where landscape or geographical constraints make stock exclusion impractical <u>and the effects of stock movements are avoided, remedied or mitigated.</u> In all cases, the effects of any unavoidable losses of nitrogen, phosphorus, faecal contamination and sediment must be avoided remedied or mitigated by other works or environmental compensation. <u>Mitigation works may include (but are not limited to) creation of wetland and riparian planted zones.</u> (c)
(d) Provide for exceptions to (a) for existing intensive farming <u>land[^]</u> uses that exceed the parameters <u>cumulative nitrogen leaching maximum[*]</u> specified in Policy 14-5(d) only where: (i) <u>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 as soon as reasonably feasible progressively over time; or</u> (ii) <u>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.</u>	(g) Provide for exceptions to (a) for existing intensive farming <u>land[^]</u> uses that exceed the parameters specified in Policy 14-5(d) only where: (i) <u>Good management practices[*] and best management practices[*]</u> are implemented in accordance with a <u>nutrient management plan[*]</u> specifying timelines and N leaching targets, along with additional measures <u>(where necessary)</u> to ensure nutrient leaching and run-off, faecal contamination and sediment losses from the <u>land[^]</u> are reduced to the maximum reasonably practicable extent as soon as <u>practicable reasonably feasible</u>; or (ii) The existing intensive farming <u>land[^]</u> use is to continue for no longer than five years in order to enable the transition to an alternative non-intensive farming <u>land[^]</u> use without an increase in nutrient leaching and run-off, faecal contamination and sediment losses from the <u>land[^]</u> over that period of time.	(d) Provide for exceptions to (a) for existing intensive farming land[^] uses that exceed the parameters specified in Policy 14-5(d) only where: (i) <u>Good management practices[*] are implemented in accordance with a nutrient management plan[*] specifying timelines and N leaching targets, along with additional measures to ensure nutrient leaching and run-off, faecal contamination and sediment losses from the land[^] are reduced to the maximum reasonably practicable extent as soon as reasonably feasible; or</u> (ii) <u>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.</u>
(e) <u>When determining whether to enable an existing intensive farming land[^] use to continue under (d)(i), have particular regard to:</u> (i) <u>The extent of the activity's exceedance of the parameters specified in Policy 14-5(d) and the contribution of the nitrogen leaching loss from the land[^] to cumulative nitrogen leaching loss within the relevant Water Management Sub-Zone[*];</u> (ii) <u>Proportionality in ensuring that the existing intensive farming land[^] uses that have high nitrogen leaching loss</u>	(h) When determining whether to enable an existing intensive farming <u>land[^]</u> use to continue under <u>Policy 14-6 (g)</u> (d)(i), have particular regard to: (i) <u>The contribution made to the maintenance and enhancement of values held by mana whenua for the relevant Water Management Sub-Zone[*];</u> (ii) The extent of the activity's exceedance of the parameters specified in Policy 14-5(d) and the contribution of the nitrogen leaching loss from the <u>land[^]</u> to cumulative nitrogen	(e) When determining whether to enable an existing intensive farming land[^] use to continue under (d)(i), have particular regard to: (i) The extent of the activity's exceedance of the parameters specified in Policy 14-5(d) and the contribution of the nitrogen leaching loss from the land[^] to cumulative nitrogen leaching loss within the relevant Water Management Sub-Zone[*];

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<u>relative to the cumulative nitrogen leaching maximum*</u> values specified in Table 14.2 are required to make appropriately proportionate reductions in nitrogen leaching loss; (iii) <u>Whether the proposed good management practices* innovations and mitigation measures proposed to manage 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 particular regard to:</u> (A) <u>The feasibility, practicality and financial implications of implementing alternative measures that could achieve the parameters described in Policy 14-5(d);</u> (B) <u>The extent of the exceedance of the cumulative nitrogen leaching maximum* in Table 14.2;</u> (C) <u>The rate of reduction of nitrogen loss towards the parameters described in Policy 14-5(d); cumulative nitrogen leaching maximum* for any given year in Table 14.2;</u> (D) <u>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;</u> (iv) <u>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;</u> (v) <u>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;</u>	leaching loss within the relevant <i>Water Management Sub-Zone*</i>; (iii) <u>The rate of reduction of nitrogen loss towards the parameters specified in Policy 14-5(d);</u> (iv) Proportionality in ensuring that the existing intensive farming land^ uses that have high nitrogen leaching loss relative to the <u>cumulative nitrogen leaching maximum*</u> values specified in Table 14.2 relevant limit specified in Policy 14-5 (d) are required to make appropriately proportionate reductions in nitrogen leaching loss; (v) <u>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, and the feasibility, practicality and financial implications of implementing alternative measures that could achieve the parameters described in Policy 14-5(d);</u> (i) <u>When determining whether to enable an existing intensive farming land^ use to continue under Policy 14-6 (g) (i), also have regard to:</u> (vi) <u>Whether the proposed good management practices* and mitigation measures proposed to manage nutrient leaching and run-off, faecal contamination and sediment losses from the land^ represent the best practicable option^ to minimise these contaminants, having particular regard to:</u> (vii) <u>The feasibility, practicality and financial implications of implementing alternative measures that could achieve the parameters described in Policy 14-5(d);</u> (viii) <u>The rate of reduction of nitrogen loss towards the parameters described in Policy 14-5(d);</u> (ix) <u>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;</u>	(ii) <u>Proportionality in ensuring that the existing intensive farming land^ uses that have high nitrogen leaching loss relative to the cumulative nitrogen leaching maximum* values specified in Table 14.2 are required to make appropriately proportionate reductions in nitrogen leaching loss;</u> (iii) <u>Whether the proposed good management practices* and mitigation measures proposed to manage nutrient leaching and run-off, faecal contamination and sediment losses from the land^ represent the best practicable option^ to minimise these contaminants, having particular regard to:</u> (A) <u>The feasibility, practicality and financial implications of implementing alternative measures that could achieve the parameters described in Policy 14-5(d);</u> (B) <u>The rate of reduction of nitrogen loss towards the parameters described in Policy 14-5(d);</u> (C) <u>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;</u> (iv) <u>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;</u> (v) <u>The nature and characteristics of the land^, including land use capability class* and productive capability, physical characteristics of the soil including in terms of attenuation capacity, climatic conditions, and topography of the property;</u> (vi) <u>The contribution of the progressive reduction in 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*</u>

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(vi) <u>The contribution of the progressive reduction in nutrient leaching and run-off, faecal contamination and sediment losses from the <i>land</i>[^], over time, to the improvement of <i>water</i>[^] quality within that <i>Water Management Sub-zone</i>[*] and need for such progressive reduction, by reference to the relevant Schedule E targets;</u> (vii) <u>Consent duration, ensuring that the duration is limited to a period not exceeding ten years, and a shorter duration where continued high cumulative nitrogen leaching from the <i>land</i>[^] is planned without progressive reduction through the use of <i>best management practice</i>[*];</u> (viii) <u>The potential effects of nutrient leaching and run-off, faecal contamination and sediment losses from the <i>land</i>[^] on surface <i>water</i>[^] and groundwater receiving environments, recognising the state, sensitivity and absorptive capacity of the receiving environment and of downstream lakes and wetlands;</u> (ix) <u>The surface <i>water</i>[^] management values for the relevant <i>Water Management Sub-zone</i>[*], including the values described in Schedule B and in any relevant treaty settlement documents;</u> (x) <u>The strategy for surface <i>water</i>[^] quality set out in Policies 5-2, 5-3, 5-4 and 5-5, and the strategy for groundwater quality in Policy 5-6;</u> (xi) <u>The operational crop rotation requirements of <i>commercial vegetable growing</i>[*] necessary to avoid soil-borne diseases and maintain crop health;</u> (xii) <u>The importance of maintaining food security for New Zealanders to support community well-being;</u> (xiii) <u>The potential benefits of off-site mitigation measures to address adverse effect of nutrient leaching and run-off, faecal contamination and sediment losses on <i>water</i>[^] quality in the <i>surface water management sub-zone</i>[*].</u>	optimisation and analysis of marginal costs and benefits that determines the range of leaching reductions available; (x) The extent to which the non-compliance with the <i>cumulative nitrogen leaching maximum</i>[*] specified in Table 14.2 is attributable to updates in versions of Overseer; (i) The nature and characteristics of the <i>land</i>[^], including <i>land use capability class</i>[*] and productive capability, physical characteristics of the soil including in terms of attenuation capacity, climatic conditions, and topography of the property; (ii) The contribution of the progressive reduction in nutrient leaching and run-off, faecal contamination and sediment losses from the <i>land</i>[^], over time, to the improvement of <i>water</i>[^] quality within that <i>Water Management Sub-zone</i>[*] and the need for <i>water quality improvement</i> such <i>progressive reduction</i>, by reference to the relevant Schedule E targets; (iii) Consent duration, ensuring that the duration is limited to a period not exceeding ten years, and a shorter duration where continued high cumulative nitrogen leaching from the <i>land</i>[^] is planned without progressive reduction through the use of <i>best management practice</i>[*]; (iii) The potential effects of nutrient leaching and run-off, faecal contamination and sediment losses from the <i>land</i>[^] on surface <i>water</i>[^] and groundwater receiving environments, recognising the state, sensitivity and absorptive capacity of the receiving environment and of downstream lakes and wetlands; (iv) The surface <i>water</i>[^] management values for the relevant <i>Water Management Sub-zone</i>[*], including the values described in Schedule B and in any relevant treaty settlement documents; (v) The strategy for surface <i>water</i>[^] quality set out in Policies 5-2, 5-3, 5-4 and 5-5, and the strategy for groundwater quality in Policy 5-6;	and need for such progressive reduction, by reference to the relevant Schedule E targets; (vii) Consent duration, ensuring that the duration is limited to a period not exceeding ten years, and a shorter duration where continued high cumulative nitrogen leaching from the <i>land</i>[^] is planned without progressive reduction through the use of <i>best management practice</i>[*]; (viii) The potential effects of nutrient leaching and run-off, faecal contamination and sediment losses from the <i>land</i>[^] on surface <i>water</i>[^] and groundwater receiving environments, recognising the state, sensitivity and absorptive capacity of the receiving environment and of downstream lakes and wetlands; (ix) The surface <i>water</i>[^] management values for the relevant <i>Water Management Sub-zone</i>[*], including the values described in Schedule B and in any relevant treaty settlement documents; (x) The strategy for surface <i>water</i>[^] quality set out in Policies 5-2, 5-3, 5-4 and 5-5, and the strategy for groundwater quality in Policy 5-6; (xi) The operational crop rotation requirements of <i>commercial vegetable growing</i>[*] necessary to avoid soil-borne diseases and maintain crop health; (xii) The importance of maintaining food security for New Zealanders to support community well-being; (c) The potential benefits of off-site mitigation measures to address adverse effect of nutrient leaching and run-off, faecal contamination and sediment losses on <i>water</i>[^] quality in the <i>surface water management sub-zone</i>[*].

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	(vi) The operational crop rotation requirements of <i>commercial vegetable growing</i>* necessary to avoid soil-borne diseases and maintain crop health; (vii) The importance of maintaining food security for New Zealanders to support community well-being; (viii) The <u>extent to which any potential benefits</u> of off-site mitigation measures to <u>will</u> address adverse effects of nutrient leaching and run-off, faecal contamination and sediment losses from the land^ <u>on water^</u> quality in the <i>surface water management sub-zone</i>*.	
(f) <u>When determining whether to enable the existing intensive farming land^ use to continue under (d)(iii), have regard to:</u> (i) <u>measures implemented in accordance with a <i>nutrient management plan</i>* to ensure that nutrient leaching and run-off, faecal contamination and sediment loss from the land^ do not increase over the duration of the <i>resource consent</i>^;</u> (ii) <u><i>good management practices</i>* and additional measures that are proposed to avoid, remedy or mitigate nutrient leaching and run-off, faecal contamination and sediment losses from the land^;</u> (iii) <u>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 <i>resource consent</i>^ and to prevent resumption of that intensive farming activity on the land^.</u>	(j) <u>Where the consent authority determines that consent can be granted for an existing intensive farming land^ use under Policy 14-6 (eg) (i) the activity must be managed by consent conditions that:</u> (i) <u>Require the implementation of <i>good management practices</i>*, <i>best management practices</i>* (and additional measures where necessary), specified in a <i>nutrient management plan</i>*, to:</u> <u>minimise the loss of nutrients, faecal contamination and sediment from the land^; and</u> <u>avoid, remedy or mitigate the potential effects of loss of nutrients, faecal contamination and sediment from the land^ on surface water^ and groundwater receiving environments including lakes and wetlands;</u> (ii) <u>Ensure that nutrient leaching and run-off, faecal contamination and sediment losses from the land^ do not increase over the duration of the <i>resource consent</i>^;</u> (iii) <u>Specify the timing of measures to reduce nitrogen leaching loss to the maximum extent reasonably practicable in the shortest practicable timeframe;</u> (iv) <u>Specify the measures or arrangements necessary including the nature, timing and sequencing of any steps required to ensure the benefits of offsite mitigation measures are realised;</u>	(f) <u>When determining whether to enable the existing intensive farming land^ use to continue under (d)(ii), have regard to:</u> (i) <u>measures implemented in accordance with a <i>nutrient management plan</i>* to ensure that nutrient leaching and run-off, faecal contamination and sediment loss from the land^ do not increase over the duration of the <i>resource consent</i>^;</u> (ii) <u><i>good management practices</i>* and additional measures that are proposed to avoid, remedy or mitigate nutrient leaching and run-off, faecal contamination and sediment losses from the land^;</u> (f) <u>the measures or arrangements necessary, including the nature, timing and sequencing of any steps required, to ensure transition out of the intensive farming use of the land^ by the date of expiry of the <i>resource consent</i>^ and to prevent resumption of that intensive farming activity on the land^.</u>

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	(v) <u>Specify the monitoring and reporting requirements, including the supply of Overseer modelling outputs if relevant.</u> (k) <u>Where the consent authority determines that consent can be granted for an existing intensive farming land[^] use under Policy 14-6 (dg) (ii) the activity must be managed by consent conditions that: When determining whether to enable the existing intensive farming land[^] use to continue under (d) (ii), have regard to:</u> (i) <u>Require the implementation of measures specified in implemented in accordance with a nutrient management plan* to ensure that nutrient leaching and run-off, faecal contamination and sediment loss from the land[^] are minimised to the extent practicable and do not increase over the duration of the consent;</u> (ii) <u>Require the implementation of good management practices* and additional measures that are proposed to avoid, remedy or mitigate nutrient leaching and run-off, faecal contamination and sediment losses from the land[^];</u> (iii) <u>Specify the monitoring and reporting requirements, including the supply of Overseer modelling outputs if relevant;</u> (iv) <u>Specify the measures or arrangements necessary, including the nature, timing and sequencing of any steps required, to ensure transition out of the intensive farming use of the land[^] by the date of expiry of the resource consent[^] and to prevent resumption of that intensive farming activity on the land[^] or establishment of any land[^] use activity that would exceed the relevant Table 14.2 CNLM.</u>	
Rules – Agricultural Activities No changes to Table 14.1.	Rules – Agricultural Activities No changes to Table 14.1.	Rules – Agricultural Activities No changes to Table 14.1.
Table 14.2 sets out the <i>cumulative nitrogen leaching maximum*</i> for the land[^] used for intensive farming land[^] use activities within each	Table 14.2 sets out the <i>cumulative nitrogen leaching maximum*</i> for the land[^] used for intensive farming land[^] use activities within each specified land use capability class*. The <i>cumulative nitrogen leaching</i>	Table 14.2 sets out the <i>cumulative nitrogen leaching maximum*</i> for the land[^] used for intensive farming land[^] use activities within each specified land use capability class*. The <i>cumulative nitrogen leaching</i>

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specified <i>land use capability class</i>*. <u>The <i>cumulative nitrogen leaching maximum</i>* values in Table 14.2 were derived using Overseer® 6.2.3.</u> Table 14.2 <i>Cumulative nitrogen leaching maximum* by Land Use Capability Class*</i> <table><tr><th>Period (from the year that the rule has legal effect)</th><th>LUC* I</th><th>LUC* II</th><th>LUC* III</th><th>LUC* IV</th><th>LUC* V</th><th>LUC* VI</th><th>LUC* VII</th><th>LUC* VIII</th></tr><tr><td>Year 1</td><td>51 40</td><td>45 27</td><td>40 24</td><td>29 19</td><td>25 16</td><td>24 15</td><td>11 8</td><td>3 2</td></tr><tr><td>Year 5</td><td>46 27</td><td>42 35</td><td>35 21</td><td>26 16</td><td>20 13</td><td>16 10</td><td>8 6</td><td>3 2</td></tr><tr><td>Year 10</td><td>44 26</td><td>37 22</td><td>32 19</td><td>23 14</td><td>20 13</td><td>16 10</td><td>8 6</td><td>3 2</td></tr><tr><td>Year 20 (applies to new intensive farming land[^] use activities only)</td><td>43 25</td><td>35 21</td><td>30 18</td><td>21 13</td><td>19 12</td><td>16 10</td><td>8 6</td><td>3 2</td></tr></table>	Period (from the year that the rule has legal effect)	LUC* I	LUC* II	LUC* III	LUC* IV	LUC* V	LUC* VI	LUC* VII	LUC* VIII	Year 1	51 40	45 27	40 24	29 19	25 16	24 15	11 8	3 2	Year 5	46 27	42 35	35 21	26 16	20 13	16 10	8 6	3 2	Year 10	44 26	37 22	32 19	23 14	20 13	16 10	8 6	3 2	Year 20 (applies to new intensive farming land [^] use activities only)	43 25	35 21	30 18	21 13	19 12	16 10	8 6	3 2	<i>maximum</i>* values in Table 14.2 were derived using Overseer® <u>[6.5.4] 6-2-3</u>. Where the version of Overseer relied on to determine the <i>cumulative nitrogen leaching maximum</i>* for a <i>land</i>[^] use differs from Version <u>[6.5.4]</u>, the applicable <i>cumulative nitrogen leaching maximum</i>* shall be the equivalent <i>Overseer reference file</i>* output(s) for the relevant <i>land use capability class</i>* and year in Table 14.2 calculated using the <i>Overseer reference files</i>* in Schedule [ZA] and the same version of Overseer relied on by the <i>land</i>[^] use applied for. Table 14.2 <i>Cumulative nitrogen leaching maximum* by Land Use Capability Class*</i> <table><tr><th>Period (from the year that the rule has legal effect)</th><th>LUC* I</th><th>LUC* II</th><th>LUC* III</th><th>LUC* IV</th><th>LUC* V</th><th>LUC* VI</th><th>LUC* VII</th><th>LUC* VIII</th></tr><tr><td>Year 1</td><td>51 44.8</td><td>45 39.6</td><td>40 29.3</td><td>29 21.8</td><td>25 19.3</td><td>24 18.4</td><td>11 9.6</td><td>3</td></tr><tr><td>Year 5</td><td>46 40.3</td><td>42 36.7</td><td>35 25.6</td><td>26 19.4</td><td>20 15.7</td><td>16 12.3</td><td>8 7.2</td><td>3</td></tr><tr><td>Year 10</td><td>44 38.8</td><td>37 32.3</td><td>32 23.2</td><td>23 17.0</td><td>20 15.7</td><td>16 12.3</td><td>8 7.2</td><td>3</td></tr><tr><td>Year 20</td><td>43 37.3</td><td>35 30.8</td><td>30 22.0</td><td>21 15.7</td><td>19 14.5</td><td>16 12.3</td><td>8 7.2</td><td>3</td></tr></table> <u>[Note: the Overseer version number and CNLM values in Table 14.2 are to be replaced by the most recent Overseer version and values at the date of decision]</u>	Period (from the year that the rule has legal effect)	LUC* I	LUC* II	LUC* III	LUC* IV	LUC* V	LUC* VI	LUC* VII	LUC* VIII	Year 1	51 44.8	45 39.6	40 29.3	29 21.8	25 19.3	24 18.4	11 9.6	3	Year 5	46 40.3	42 36.7	35 25.6	26 19.4	20 15.7	16 12.3	8 7.2	3	Year 10	44 38.8	37 32.3	32 23.2	23 17.0	20 15.7	16 12.3	8 7.2	3	Year 20	43 37.3	35 30.8	30 22.0	21 15.7	19 14.5	16 12.3	8 7.2	3	<i>maximum</i>* values in Table 14.2 were derived using Overseer® 6-2-3 [version to be inserted]. Table 14.2 <i>Cumulative nitrogen leaching maximum* by Land Use Capability Class*</i> <table><tr><th>Period (from the year that the rule has legal effect)</th><th>LUC* I</th><th>LUC* II</th><th>LUC* III</th><th>LUC* IV</th><th>LUC* V</th><th>LUC* VI</th><th>LUC* VII</th><th>LUC* VIII</th></tr><tr><td>Year 1</td><td>51</td><td>45</td><td>40</td><td>29</td><td>25</td><td>24</td><td>11</td><td>3</td></tr><tr><td>Year 5</td><td>46</td><td>42</td><td>35</td><td>26</td><td>20</td><td>16</td><td>8</td><td>3</td></tr><tr><td>Year 10</td><td>44</td><td>37</td><td>32</td><td>23</td><td>20</td><td>16</td><td>8</td><td>3</td></tr><tr><td>Year 20</td><td>43</td><td>35</td><td>30</td><td>21</td><td>19</td><td>16</td><td>8</td><td>3</td></tr></table>	Period (from the year that the rule has legal effect)	LUC* I	LUC* II	LUC* III	LUC* IV	LUC* V	LUC* VI	LUC* VII	LUC* VIII	Year 1	51	45	40	29	25	24	11	3	Year 5	46	42	35	26	20	16	8	3	Year 10	44	37	32	23	20	16	8	3	Year 20	43	35	30	21	19	16	8	3
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Table 14.2A <i>75th Percentile leaching rates by targeted Water Management Sub-zone*</i> <table><tr><th>Catchment</th><th>Water Management Sub-zone*</th><th>Maximum nitrogen leaching loss rate (kg N/ha/year)</th></tr><tr><td>Coastal Rangitikei</td><td>Rang_4</td><td>32</td></tr></table>	Catchment	Water Management Sub-zone*	Maximum nitrogen leaching loss rate (kg N/ha/year)	Coastal Rangitikei	Rang_4	32	Table 14.2A <i>75th Percentile leaching rates by targeted Water Management Sub-zone*</i> <table><tr><th>Catchment</th><th>Water Management Sub-zone*</th><th>Maximum nitrogen leaching loss rate (kg N/ha/year)</th></tr><tr><td>Coastal Rangitikei</td><td>Rang_4</td><td>32</td></tr></table>	Catchment	Water Management Sub-zone*	Maximum nitrogen leaching loss rate (kg N/ha/year)	Coastal Rangitikei	Rang_4	32	Table 14.2A <i>75th Percentile leaching rates by targeted Water Management Sub-zone*</i> <table><tr><th>Catchment</th><th>Water Management Sub-zone*</th><th>Maximum nitrogen leaching loss rate (kg N/ha/year)</th></tr><tr><td>Coastal Rangitikei</td><td>Rang_4</td><td>32</td></tr></table>	Catchment	Water Management Sub-zone*	Maximum nitrogen leaching loss rate (kg N/ha/year)	Coastal Rangitikei	Rang_4	32																																																																																																																					
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West Coast lakes, Lake Horowhenua, other coastal lakes	Hoki 1a, 1b; West 4; West 5; West 6; West 8; West 9a, 9b	35	West Coast lakes, Lake Horowhenua, other coastal lakes	Hoki 1a, 1b; West 4; West 5; West 6; West 8; West 9a, 9b	35	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	Upper Manawatu and Weber-Tamaki (upstream of Tamaki confluence)	Mana 1a, 1b, 1c; Mana 2a, 2b	45	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	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	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	Mangatainoka	Mana 8a, 8b, 8c, 8d	49	Mangatainoka	Mana 8a, 8b, 8c, 8d	49																								
			<u>Table 14.2A: Nitrogen Leaching Risk Limits* - Pastoral</u> The following are the <i>nitrogen leaching risk limits*</i> for pastoral intensive farming <i>land</i>[^] use activities for the purposes of Rule 14-1 and Schedule [Z]: <table><tr><td></td><td colspan="3">Profile Available Water</td></tr><tr><td>Rainfall</td><td>151-350mm</td><td>65-150mm</td><td>0-60mm</td></tr><tr><td>Rainfall 1 <1000mm/year</td><td>180</td><td>180</td><td>130</td></tr><tr><td>Rainfall 2 1000 – 1300 mm/year</td><td>180</td><td>150</td><td>120</td></tr><tr><td>Rainfall 3 1300 – 1600 mm/year</td><td>150</td><td>130</td><td>110</td></tr><tr><td>Rainfall 4 >1600 mm/year</td><td>150</td><td>120</td><td>110</td></tr></table>				Profile Available Water			Rainfall	151-350mm	65-150mm	0-60mm	Rainfall 1 <1000mm/year	180	180	130	Rainfall 2 1000 – 1300 mm/year	180	150	120	Rainfall 3 1300 – 1600 mm/year	150	130	110	Rainfall 4 >1600 mm/year	150	120	110			
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			<u>Table 14.2B: Nitrogen Leaching Risk Limits* - Commercial Vegetable Growing*</u> The following are the <i>nitrogen leaching risk limits*</i> for commercial <i>vegetable growing*</i> activities for the purposes of Rule 14-1 and Schedule [Z]. The limits prescribed in Table 14.2B apply to both the <i>nitrogen fertiliser practices</i> described in Topic 1 and the <i>soil health practices</i> described in Topic 2 of Schedule [Y]. For the purposes of Rule																													

Commented [c1]: Note: 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.

Decisions Version PC2 Wording (DV-PC2) (showing changes tracked onto original One Plan)	Horizons Regional Council Reply Provisions (tracked onto clean version of DV-PC2)	Day V3 Provisions (attached to Supplementary Evidence of Michael Scott dated 28 March 2024)																																								
	<u>14-1, the <i>nitrogen leaching risk</i>* of the activity must not exceed the largest number of the range specified in Table 14.2B.</u> <table><tr><td></td><td colspan="3">Profile Available Water</td></tr><tr><td><u>Rainfall</u></td><td><u>151-350mm</u></td><td><u>65-150mm</u></td><td><u>0-60mm</u></td></tr><tr><td><u>Rainfall 1</u></td><td><u>72</u></td><td><u>72</u></td><td><u>52</u></td></tr><tr><td><u><1000mm/year</u></td><td></td><td></td><td></td></tr><tr><td><u>Rainfall 2</u></td><td><u>72</u></td><td><u>60</u></td><td><u>48</u></td></tr><tr><td><u>1000 – 1300 mm/year</u></td><td></td><td></td><td></td></tr><tr><td><u>Rainfall 3</u></td><td><u>60</u></td><td><u>52</u></td><td><u>44</u></td></tr><tr><td><u>1300 – 1600 mm/year</u></td><td></td><td></td><td></td></tr><tr><td><u>Rainfall 4</u></td><td><u>60</u></td><td><u>48</u></td><td><u>44</u></td></tr><tr><td><u>>1600 mm/year</u></td><td></td><td></td><td></td></tr></table>		Profile Available Water			<u>Rainfall</u>	<u>151-350mm</u>	<u>65-150mm</u>	<u>0-60mm</u>	<u>Rainfall 1</u>	<u>72</u>	<u>72</u>	<u>52</u>	<u><1000mm/year</u>				<u>Rainfall 2</u>	<u>72</u>	<u>60</u>	<u>48</u>	<u>1000 – 1300 mm/year</u>				<u>Rainfall 3</u>	<u>60</u>	<u>52</u>	<u>44</u>	<u>1300 – 1600 mm/year</u>				<u>Rainfall 4</u>	<u>60</u>	<u>48</u>	<u>44</u>	<u>>1600 mm/year</u>				
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PC2 Decisions Version (with tracked changes) - RULES	Horizons Regional Council proposed wording - RULES	Day V3 proposed wording (attached to Supplementary Evidence of Michael Scott dated 28 March 2024) - RULES
Rule 14-1 Existing intensive farming <i>land</i> [^] use activities Controlled Activity	Rule 14-1 Existing intensive farming <i>land</i> [^] use activities Controlled Activity	Rule 14-1 Existing intensive farming <i>land</i> [^] use activities Controlled Activity
Rule 14-1 Description 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 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	Rule 14-1 Description 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 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.	Rule 14-1 Description 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 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. 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 to the portion of the existing intensive farming <i>land</i>[^] use that is located within the listed <i>water management sub-zones</i>[*].	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 to the portion of the existing intensive farming <i>land</i>[^] use that is located within the listed <i>water management sub-zones</i>[*].	and any ancillary <i>discharge</i>[^] of <i>contaminants</i>[^] into air pursuant to ss15(1) or 15(2A) RMA. 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 to the portion of the existing intensive farming <i>land</i>[^] use that is located within the listed <i>water management sub-zones</i>[*].
Rule 14-1 Conditions/Standards/Terms (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>	Rule 14-1 Conditions/Standards/Terms (a) <u>Where an application is made to replace, renew or vary consent for an existing intensive farming <i>land</i>[^] use granted prior to 22 July 2019, the nitrogen leaching loss proposed in the application must not exceed the nitrogen leaching loss authorised by any earlier <i>resource consent</i>[^]. 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>	Rule 14-1 Conditions/Standards/Terms (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) (a) A <i>nutrient management plan</i>[*] must be prepared for the <i>land</i>[^], and provided annually to the Regional Council <u>with the application for resource consent[^] and thereafter as required by any condition of resource consent[^].</u>	(b) A <i>nutrient management plan</i>[*] must be prepared for the <i>land</i>[^], and provided to the Regional Council with the application for <i>resource consent</i>[^] and thereafter as required by any condition of <i>resource consent</i>[^].	(a) A <i>nutrient management plan</i>[*] must be prepared for the <i>land</i>[^], and provided to the Regional Council with the application for <i>resource consent</i>[^] and thereafter as required by any condition of <i>resource consent</i>[^].
(c) The activity must be undertaken in accordance with the <i>nutrient management plan</i>[*] prepared under (a) (b).	(c) The activity must be undertaken in accordance with the <i>nutrient management plan</i>[*] prepared under (b).	(b) The activity must be undertaken in accordance with the <i>nutrient management plan</i>[*] prepared under (a) (b).
(d) The <i>nutrient management plan</i>[*] prepared under (a) (b) must demonstrate that the nitrogen leaching loss from the activity will: (i) <u>the nitrogen leaching loss from the activity will not exceed the cumulative nitrogen leaching maximum* specified in Table 14.2; or</u> (ii) <u>the nitrogen leaching loss from the activity will not exceed a rate that is the lesser of:</u> a. <u>80% of the nitrogen leaching baseline* of the <i>land</i>[^] (which must be achieved by 31 December 2022) and</u> b. <u>the nitrogen leaching loss specified for the relevant Surface Water Management Sub-zone* in Table 14.2A; or</u>	(d) The <i>nutrient management plan</i>[*] prepared under (b) must demonstrate that: (i) the nitrogen leaching loss from the activity will not exceed the cumulative nitrogen leaching maximum* specified in Table 14.2 <u>or the equivalent Overseer reference file* outputs using the applicable version of Overseer; or</u> (ii) <u>the nitrogen leaching risk limit* specified in Table 14.2A or Table 14.2B as applicable; or</u> (iii) <u>for commercial vegetable growing*, a minimum reduction in cumulative nitrogen leaching loss from the <i>land</i>[^] of 35% relative to the baseline growing period* and the growing area does not exceed the area of commercial vegetable growing* of the baseline commercial growing period; or</u>	(c) The <i>nutrient management plan</i>[*] prepared under (b) (a) must demonstrate that <u>the nitrogen leaching loss from the activity will not exceed:</u> (i) the nitrogen leaching loss from the activity will not exceed the cumulative nitrogen leaching maximum* specified in Table 14.2 <u>where the nutrient management plan* was prepared and nitrogen leaching loss was estimated using the same version of OVERSEER as used to produce the cumulative nitrogen leaching maximums* in Table 14.2; or</u> (iii) <u>where the nutrient management plan was prepared and nitrogen leaching loss was estimated using a different version of OVERSEER as used to produce the cumulative nitrogen leaching maximums* in Table 14.2, the equivalent maximums for that different version of OVERSEER</u>

(iii) <u>for commercial vegetable growing*</u>, the growing area does not exceed the <u>baseline growing area*</u> and, within 3 years of lodgement of the application, the activity will achieve a minimum reduction in cumulative nitrogen leaching loss from the <u>land^</u> of 35% relative to the <u>baseline growing period*</u>; (iv) <u>provided that, under (d)(ii) and (iii) above, the application for consent is lodged no later than 31 December 2022.</u>	(iv) <u>for other intensive farming land^</u> uses, a minimum reduction in cumulative nitrogen leaching loss from the <u>land^</u> of 20% relative to the <u>nitrogen baseline*</u>; provided that (v) <u>under (ii) above, compliance with Table 14.2A must be achieved at the time of lodging the application and compliance with Table 14.2B must be demonstrated to be achievable no later than [a date two years from the operative date of PC2]; and</u> (vi) <u>the minimum nitrogen leaching reductions proposed under (d) (iii) and (d) (iv) above will be achieved within two years of the grant of consent.</u> (vii) <u>the nitrogen leaching loss from the activity will not exceed a rate that is the lesser of:</u> <u>80% of the nitrogen leaching baseline* of the land^</u> <u>(which must be achieved by 31 December 2022) and</u> <u>the nitrogen leaching loss specified for the relevant Surface Water Management Sub-zone* in Table 14.2A; or</u> (viii) <u>for commercial vegetable growing*</u>, the growing area does not exceed the <u>baseline growing area*</u> and, within 3 years of lodgement of the application, the activity will achieve a minimum reduction in cumulative nitrogen leaching loss from the <u>land^</u> of 35% relative to the <u>baseline growing period*</u>; (ix) <u>provided that, under (d)(ii) and (iii) above, the application for consent is lodged no later than 31 December 2022.</u>	<u>produced using the reference file system, the nitrogen leaching loss from the activity will not exceed a rate that is the lesser of:</u> <u>a. 80% of the nitrogen leaching baseline* of the land^</u> <u>(which must be achieved by 31 December 2022) and</u> <u>b. the nitrogen leaching loss specified for the relevant Surface Water Management Sub-zone* in Table 14.2A; or</u> (iii) <u>for commercial vegetable growing*</u>, the growing area does not exceed the <u>baseline growing area*</u> and, within 3 years of lodgement of the application, the activity will achieve a minimum reduction in cumulative nitrogen leaching loss from the <u>land^</u> of 35% relative to the <u>baseline growing period*</u>; (iv) <u>provided that, under (d)(ii) and (iii) above, the application for consent is lodged no later than 31 December 2022.</u>
	(e) <u>Any application for consent under Rule 14-1 (d) (ii), (iii) or (iv) must be lodged no later than [a date twelve months from the operative date of PC2].</u>	
(e) Cattle must be excluded from: (i) <u>wetlands^ and lakes^ that are a rare habitat* or threatened habitat*, and</u> (ii) <u>the beds^ of rivers^ that are permanently flowing or have an active bed* width greater than 1 m.</u>	(f) Cattle must be excluded from: (i) <u>wetlands^ and lakes^ that are a rare habitat* or threatened habitat*, and</u> (ii) <u>the beds^ of rivers^ that are permanently flowing or have an active bed* width greater than 1 m.</u>	(e) Cattle must be excluded from: (i) <u>wetlands^ and lakes^ that are a rare habitat* or threatened habitat*, and</u> (ii) <u>the beds^ of rivers^ that are permanently flowing or have an active bed* width greater than 1 m.</u>
(f) <u>Rivers^ that are permanently flowing or have an active bed* width greater than 1 m, that are crossed by cattle must be bridged or culverted, and the cattle must cross via</u>	(g) <u>Rivers^ that are permanently flowing or have an active bed* 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</u>	(f) <u>Rivers^ that are permanently flowing or have an active bed* width greater than 1 m, that are crossed by cattle must be bridged or culverted, and the cattle must cross via that bridge</u>

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> [^] .	run-off originating from the carriageway of the bridge or culvert must be <i>discharged</i> [^] onto or into <i>land</i> [^] .	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.	(h) 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.	(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.
(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>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.	(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>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.	(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>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.	(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 farm <i>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 (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.	(l) The <i>discharge</i> [^] of farm <i>animal effluent</i> [*] onto or into <i>production land</i> [^] including: (iii) effluent from dairy sheds and <i>feedpads</i> [*] (iv) effluent received from piggeries (v) sludge from farm effluent ponds (vi) 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.	(k) The <i>discharge</i> [^] of farm <i>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 (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 14-1 Control/Discretion/Non-Notification (a) the <u>contents, implementation and review</u> of the <i>nutrient management plan</i> [*] <u>for the land</u> [^]	Rule 14-1 Control/Discretion/Non-Notification Control is reserved over: (a) the contents, implementation and review of the <i>nutrient management plan</i> [*] for the <i>land</i> [^]	Rule 14-1 Control/Discretion/Non-Notification Control is reserved over: (a) the contents, implementation and review of the <i>nutrient management plan</i> [*] for the land [^]
(b) compliance with the cumulative nitrogen leaching maximum specified in Table 14.2 the nitrogen leaching loss from the <i>land</i> [^] and the <i>good management practices</i> [*] and <i>best management practices</i> [*] (and additional measures	(b) the nitrogen leaching loss from the <i>land</i> [^] <u>where relevant under condition (d) (i) or (d) (iv) and the good management practices</u> [*] and <i>best management practices</i> [*] (and additional measures where necessary) to limit nitrogen leaching loss from the <i>land</i> [^] to the rate	(b) <u>compliance with the cumulative nitrogen leaching maximum</u> [*] specified in Table 14.2 or the equivalent maximums, produced using the reference file system, where a different version of OVERSEER than that used to <i>cumulative nitrogen leaching</i>

<u>where necessary) to limit nitrogen leaching loss from the land^ 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 land^</u>	parameter specified in Rule 14-1 condition (d) and to avoid, remedy or mitigate nutrient leaching and run-off, faecal contamination and sediment losses from the land^	maximums* in Table 14.2 has been used, the nitrogen leaching loss from the land^ and the good management practices* and best management practices* (and additional measures where necessary) to limit nitrogen leaching loss from the land^ 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 land^
(c) the matters of control in Rule 14-11	(c) the matters of control in Rule 14-11	(c) the matters of control in Rule 14-11
(d) avoiding, remedying or mitigating the effects of odour, dust, fertiliser* drift or effluent drift	(d) avoiding, remedying or mitigating the effects of odour, dust, fertiliser* drift or effluent drift	(d) avoiding, remedying or mitigating the effects of odour, dust, fertiliser* drift or effluent drift
(e) provision of information including the <i>nutrient management plan*</i>	(e) provision of information including the <i>nutrient management plan*</i>	(e) provision of information including the <i>nutrient management plan*</i>
(f) duration of consent	(f) duration of consent	(f) duration of consent
(g) review of consent <i>conditions^</i>	(g) review of consent <i>conditions^</i>	(g) review of consent <i>conditions^</i>
(h) compliance monitoring	(h) compliance monitoring <u>and reporting, including the timing and frequency of supply to the Council of nitrogen leaching estimates calculated using Overseer</u>	(h) compliance monitoring <u>and reporting</u>
(i) the matters in Policies <u>14-5, 14-6 and</u> 14-9.	(i) the matters in Policies 14-5, 14-6 and Policy 14-9.	(i) the matters in Policies 14-5, 14-6 and 14-9.
<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).	<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).	<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 14-2 Existing intensive farming <i>land^</i> use activities not complying with <u>any of the conditions, standards and terms (a), (b) and (d) to (i) (e) to (k)</u> of Rule 14-1 Restricted Discretionary Activity	Rule 14-2 Existing intensive farming <i>land^</i> use activities not complying with any of the conditions, standards and terms (f) to (l) (e) to (k) of Rule 14-1 Restricted Discretionary Activity	Rule 14-2 Existing intensive farming <i>land^</i> use activities not complying with <u>any of the conditions, standards and terms (e) to (k)</u> of Rule 14-1 Restricted Discretionary Activity
Rule 14-2 Description The use of <i>land^</i> pursuant to s 9(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 with intensive farming, that do not comply with one or more of the <i>conditions^</i> , standards and terms of Rule 14-1 <u>(except for (a), (b) or (c))</u> : (a) the <i>discharge^</i> of fertiliser* onto or into <i>land^</i>	Rule 14-2 Description The use of <i>land^</i> pursuant to s 9(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 with intensive farming, that do not comply with one or more of the <i>conditions^</i> , standards and terms <u>specified in of Rule 14-1 (f) to (l) (except for (a), (b) or (c))</u> : (a) the <i>discharge^</i> of fertiliser* onto or into <i>land^</i>	Rule 14-2 Description The use of <i>land^</i> pursuant to s 9(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 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)): (a) the <i>discharge^</i> of fertiliser* 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 farm <i>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	(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 farm <i>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	(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 farm <i>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
Rule 14-2 Conditions/Standards/Terms (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.	Rule 14-2 Conditions/Standards/Terms (a) The activity must comply with the requirements specified in conditions, standards and terms (a) to (e) (d) of Rule 14-1.	Rule 14-2 Conditions/Standards/Terms (a) The activity must comply with the requirements specified in conditions, standards and terms (a) to (d) of Rule 14-1.
(b) To 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 that the nitrogen leaching loss from the activity will not exceed the cumulative nitrogen leaching maximum[*] for any year specified in Table 14.2.	(b) The activity must comply with the requirements specified in conditions, standards and terms (f) to (l) (e) to (k) of Rule 14-1, except to the extent that consent is sought under Rule 14-2 to not comply with them.	(b) 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.
Rule 14-2 Control/Discretion/Non-Notification Discretion is restricted to:	Rule 14-2 Control/Discretion/Non-Notification Discretion is restricted to: (a) the contents, implementation and review of the <i>nutrient management plan</i>[*] for the <i>land</i>[^]	Rule 14-2 Control/Discretion/Non-Notification Discretion is restricted to: (a) the contents, implementation and review of the <i>nutrient management plan</i>[*] for the <i>land</i>[^]

(a) the contents, implementation and review of the Preparation of an compliance with nutrient management plan* for the land [^]		
		(b) the extent of non-compliance with the cumulative nitrogen leaching maximum* specified in Table 14.2 or the extent of non-compliance with the equivalent maximums produced using the reference file system, where a different version of OVERSEER than that used to <i>cumulative nitrogen leaching maximums*</i> in Table 14.2 has been used
(b) the extent of non-compliance with the cumulative nitrogen leaching maximum specified in Table 14.2 (c) measures <u>the nitrogen leaching loss from the land[^]</u>	(b) the nitrogen leaching loss from the land [^]	(b) the nitrogen leaching loss from the land[^]
(c) the measures including good management practices* and best management practices* (and additional measures where necessary) to limit nitrogen leaching loss from the land[^] 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 land[^]	(c) the measures including <i>good management practices*</i> and <i>best management practices*</i> (and additional measures where necessary) to achieve compliance with the <u>limit</u> nitrogen leaching loss from the land[^] to the rate parameter specified in Rule 14-1 condition (d) and to avoid, remedy or mitigate nutrient leaching and run-off, faecal contamination and sediment losses from the land [^]	(b) the measures including good management practices* and best management practices* (and additional measures where necessary) to limit nitrogen leaching loss from the land[^] 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 land[^]
(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	(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	(c) 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	(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	(d) 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	(f) the matters referred to in the <i>conditions[^]</i> of Rules 14-5, 14-6, 14-7, and 14-9	(e) the matters referred to in the <i>conditions[^]</i> of Rules 14-5, 14-6, 14-7, and 14-9
(g) the matters referred to in the <i>conditions[^]</i> of Rule 14-11 and the matters of control in Rule 14-11	(g) the matters referred to in the <i>conditions[^]</i> of Rule 14-11 and the matters of control in Rule 14-11	(f) 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	(h) avoiding, remedying or mitigating the effects of odour, dust, <i>fertiliser*</i> drift or effluent drift	(g) 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>	(i) provision of information including the annual <i>nutrient management plan*</i>	(h) provision of information including the annual <i>nutrient management plan*</i>
(j) duration of consent	(j) duration of consent	(i) duration of consent
(k) review of consent <i>conditions[^]</i>	(k) review of consent <i>conditions[^]</i>	(j) review of consent <i>conditions[^]</i>
(l) compliance monitoring	(l) compliance monitoring	(k) compliance monitoring
(m) the matters in Policy Policies 14-5, 14-6 and 14-9.	(m) the matters in Policies 14-5, 14-6 and Policy 14-9.	(l) The matters in Policies 14-5, 14-6 and 14-9.

Rule 14-2A Existing intensive farming <i>land</i>[^] use activities not complying with conditions, standards, or terms (a) to (d) of Rule 14-1 or condition (a) of Rule 14-2. Discretionary Activity Rule 14-2A Description The use of <i>land</i>[^] pursuant to s 9(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 ss 15(1) or 15(2A) RMA associated with intensive farming, that do not comply with conditions, standards and term (a) to (d) of Rule 14-1 or condition (a) of Rule 14-2.	Rule 14-2A Existing intensive farming <i>land</i>[^] use activities not complying with conditions, standards, or terms (a) to (e) of Rule 14-1 or condition (a) of Rule 14-2. Discretionary Activity Rule 14-2A Description The use of <i>land</i>[^] pursuant to s 9(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 ss 15(1) or 15(2A) RMA associated with intensive farming, that do not comply with conditions, standards and term (a) to (e) of Rule 14-1 or condition (a) of Rule 14-2.	Rule 14-2A Existing intensive farming <i>land</i>[^] use activities not complying with conditions, standards, or terms (a) to (d) of Rule 14-1 or condition (a) of Rule 14-2. Discretionary Activity Rule 14-2A Description The use of <i>land</i>[^] pursuant to s 9(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 ss 15(1) or 15(2A) RMA associated with intensive farming, that do not comply with conditions, standards and term (a) to (d) of Rule 14-1 or condition (a) of Rule 14-2.
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 <i>rare habitats</i>[*], <i>threatened habitats</i>[*] and <i>at-risk habitats</i>[*] 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.	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 <i>rare habitats</i>[*], <i>threatened habitats</i>[*] and <i>at-risk habitats</i>[*] 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.	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 <i>rare habitats</i>[*], <i>threatened habitats</i>[*] and <i>at-risk habitats</i>[*] 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.

PC2 Decisions Version wording	Horizons Regional Council proposed wording	Day V3 proposed wording (attached to Supplementary Evidence of Michael Scott dated 28 March 2024)
Glossary A term or expression that is defined in this glossary is marked with the symbol * when used in the Plan. A term or expression that is defined in the Resource Management Act 1991 (RMA) and used in the Plan, but which is not included in this glossary, has the same meaning as in the RMA. Definitions provided in the RMA are not repeated in this glossary. A term or expression that is defined in the RMA is marked with the symbol ^ when used in the objectives, policies or rules of the Plan, this glossary and the schedules to the Plan, other than Schedules F, G and I. When: * is not used to identify a term anywhere in the Plan, or ^ is not used to identify a term in the objectives, policies or rules of the Plan, this glossary or the schedules to the Plan the term has its ordinary meaning	Glossary A term or expression that is defined in this glossary is marked with the symbol * when used in the Plan. A term or expression that is defined in the Resource Management Act 1991 (RMA) and used in the Plan, but which is not included in this glossary, has the same meaning as in the RMA. Definitions provided in the RMA are not repeated in this glossary. A term or expression that is defined in the RMA is marked with the symbol ^ when used in the objectives, policies or rules of the Plan, this glossary and the schedules to the Plan, other than Schedules F, G and I. When: * is not used to identify a term anywhere in the Plan, or ^ is not used to identify a term in the objectives, policies or rules of the Plan, this glossary or the schedules to the Plan the term has its ordinary meaning.	Glossary A term or expression that is defined in this glossary is marked with the symbol * when used in the Plan. A term or expression that is defined in the Resource Management Act 1991 (RMA) and used in the Plan, but which is not included in this glossary, has the same meaning as in the RMA. Definitions provided in the RMA are not repeated in this glossary. A term or expression that is defined in the RMA is marked with the symbol ^ when used in the objectives, policies or rules of the Plan, this glossary and the schedules to the Plan, other than Schedules F, G and I. When: * is not used to identify a term anywhere in the Plan, or ^ is not used to identify a term in the objectives, policies or rules of the Plan, this glossary or the schedules to the Plan the term has its ordinary meaning.
New Definition: Baseline Commercial Growing Area means the aggregated area of <u>land^ utilised for commercial vegetable production in the 2012/2013 growing season and includes all land^ under the control (owned or leased) of a single grower or enterprise.</u> New Definition: Baseline Growing Period means the 2012/2013 growing season. New Definition: Crop Rotation is the systematic planting of different crops in sequence <u>over multiple years within the same growing space, or across changing and parcels, and often includes a pasture phase. This process helps maintain nutrients in the soil, reduce soil erosion, and prevents plant diseases and pests.</u>	New Definition: Baseline Commercial Growing Area means the aggregated area of <u>land^ utilised for commercial vegetable production in the 2012/2013 growing season and includes all land^ under the control (owned or leased) of a single grower or enterprise.</u> New Definition: Baseline Growing Period means the 2012/2013 growing season. New Definition: Crop Rotation is the systematic planting of different crops in sequence over multiple years within the same growing space, or across changing and parcels, <u>which can and often includes a pasture phase or fallow period. This process helps maintain soil structure and nutrients in the soil, reduce soil erosion, and prevents reduces plant diseases and pests.</u>	New Definition: Baseline Commercial Growing Area means the aggregated area of <u>land^ utilised for commercial vegetable production in the 2012/2013 growing season and includes all land^ under the control (owned or leased) of a single grower or enterprise.</u> New Definition: Baseline Growing Period means the 2012/2013 growing season. New Definition: Crop Rotation is the systematic planting of different crops in sequence over multiple years within the same growing space, or across changing and parcels, and often includes a pasture phase. This process helps maintain nutrients in the soil, reduce soil erosion, and prevents plant diseases and pests.

PC2 Decisions Version wording	Horizons Regional Council proposed wording	Day V3 proposed wording (attached to Supplementary Evidence of Michael Scott dated 28 March 2024)
New Definition: <u>Enterprise means one or more parcels of <i>land</i>[^] held in single or multiple ownership to support the principle <i>land</i>[^] use, or <i>land</i>[^] on which the <i>land</i>[^] use is reliant, which constitutes a single operating unit for the purposes of management.</u> New Definition: <u>Nitrogen Baseline means the discharge of nitrogen below the root zone, as modelled using a recognised nutrient management model, for the period 1 July 2012 to 30 June 2013. If an updated version of the nutrient management model is to be issued, the most recent version is to be used to recalculate the nitrogen baseline using the same nitrogen related farm input data as used to calculate Table 14.2A.</u> New Definition: <u>75th Percentile Nitrogen Leaching Loss means the 75th percentile value (units of kg N/ha/year) of all of the nitrogen baseline* values for dairy farming <i>land</i>[^] use activities in the <i>Surface Water Management Zone</i>[*] as set out in Table 14.2A.</u> New Definition: <u>Good management practices refers to practicable measures and methods, including those established in industry-based standards and guidance documents, which are tailored for use at a farm level to minimise the effects of discharges to <i>land</i>[^] and <i>water</i>[^].</u> New definition: <u>Best Management Practices means measures, additional to <i>good management practices</i>[*] that are tailored for a farming or growing system to minimise nitrogen leaching loss from the <i>land</i>[^] to the maximum practicable extent.</u>	New Definition: Enterprise means one or more parcels of <i>land</i>[^] held in single or multiple ownership to support the principle <i>land</i>[^] use, or <i>land</i>[^] on which the <i>land</i>[^] use is reliant, which constitutes a single operating unit for the purposes of management. New Definition: Nitrogen Baseline means the discharge of nitrogen below the root zone, as modelled using a recognised nutrient management model, for the period 1 July 2012 to 30 June 2013. If an updated version of the nutrient management model is to be issued, the most recent version is to be used to recalculate the nitrogen baseline using the same nitrogen related farm input data as used to calculate Table 14.2A. New Definition: 75th Percentile Nitrogen Leaching Loss means the 75th percentile value (units of kg N/ha/year) of all of the nitrogen baseline* values for dairy farming <i>land</i>[^] use activities in the <i>Surface Water Management Zone</i>[*] as set out in Table 14.2A. New 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 at a farm level to minimise the effects of discharges to <i>land</i>[^] and <i>water</i>[^]. New definition: Best Management Practices means measures, additional to <i>good management practices</i>[*] that are tailored for a farming or growing system to minimise nitrogen leaching loss from the <i>land</i>[^] to the maximum practicable extent.	New Definition: Enterprise means one or more parcels of <i>land</i>[^] held in single or multiple ownership to support the principle <i>land</i>[^] use, or <i>land</i>[^] on which the <i>land</i>[^] use is reliant, which constitutes a single operating unit for the purposes of management. New Definition: Nitrogen Baseline means the discharge of nitrogen below the root zone, as modelled using a recognised nutrient management model, for the period 1 July 2012 to 30 June 2013. If an updated version of the nutrient management model is to be issued, the most recent version is to be used to recalculate the nitrogen baseline using the same nitrogen related farm input data as used to calculate Table 14.2A. New Definition: 75th Percentile Nitrogen Leaching Loss means the 75th percentile value (units of kg N/ha/year) of all of the nitrogen baseline* values for dairy farming <i>land</i>[^] use activities in the <i>Surface Water Management Zone</i>[*] as set out in Table 14.2A. New 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 at a farm level to minimise the effects of discharges to <i>land</i>[^] and <i>water</i>[^]. New definition: Best Management Practices means measures, additional to <i>good management practices</i>[*] that are tailored for a farming or growing system to minimise nitrogen leaching loss from the <i>land</i>[^] to the maximum practicable extent.
Amendment to Existing Definition: Nutrient Management Plan means a plan prepared annually, either: (a) in accordance with the Code of Practice for Nutrient Management (NZ Fertiliser Manufacturers' Research Association 2013 2007) which records (including copies of the OVERSEER input and output files used to prepare the plan) and takes into account all sources of nutrients, sediment and pathogens for intensive farming and	Amendment to Existing Definition: Nutrient Management Plan means a plan prepared, either: (a) in accordance with the Code of Practice for Nutrient Management (NZ Fertiliser Manufacturers' Research Association 2023 2013) which records and takes into account all sources of nutrients, sediment and pathogens for intensive farming (and includes copies of the input and output files of a	Amendment to Existing Definition: Nutrient Management Plan means a plan prepared, either: (a) in accordance with the Code of Practice for Nutrient Management (NZ Fertiliser Manufacturers' Research Association 2013) which records and takes into account all sources of nutrients, sediment and pathogens for intensive farming (and includes copies of the input and output files of a

PC2 Decisions Version wording	Horizons Regional Council proposed wording	Day V3 proposed wording (attached to Supplementary Evidence of Michael Scott dated 28 March 2024)
includes copies of the input and output files of a recognised nutrient management model used to prepare the plan) and identifies all <u>current and</u> relevant nutrient management practices and mitigations and which is prepared by a person who has both a Certificate of Completion in Sustainable Nutrient Management in New Zealand and a Certificate of Completion in Advanced Sustainable Nutrient Management from Massey University; or (b) as a component of a <u>certified freshwater farm plan</u>[^] prepared for the purpose of Part 9A of the Resource Management Act 1991 which records and takes into account all sources of nutrients for intensive farming (and includes copies of the input and output files of a recognised nutrient management model used to prepare the plan) and identifies all current and relevant nutrient management practices and mitigations and addresses potential sediment loss and faecal contamination.	recognised nutrient management model <u>or recognised nutrient risk assessment method</u> used to prepare the plan) and identifies all current and relevant nutrient management practices and mitigations and which is prepared by a person who has a Certificate of Completion in Advanced Sustainable Nutrient Management from Massey University <u>or is a certified freshwater farm planner</u>; or (b) as a component of a <u>certified freshwater farm plan</u>[^] prepared for the purpose of Part 9A of the Resource Management Act 1991 which records and takes into account all sources of nutrients for intensive farming (and includes copies of the <u>nutrient risk assessment method result</u> or the input and output files of a recognised nutrient management model used to prepare the plan) and identifies all current and relevant nutrient management practices and mitigations and addresses potential sediment loss and faecal contamination.	recognised nutrient management model used to prepare the plan) and identifies all current and relevant nutrient management practices and mitigations and which is prepared by a person who has a Certificate of Completion in Advanced Sustainable Nutrient Management from Massey University; or (b) as a component of a <u>certified freshwater farm plan</u>[^] prepared for the purpose of Part 9A of the Resource Management Act 1991 which records and takes into account all sources of nutrients for intensive farming (and includes copies of the input and output files of a recognised nutrient management model used to prepare the plan) and identifies all current and relevant nutrient management practices and mitigations and addresses potential sediment loss and faecal contamination.
	Amendment to Existing Definition: Cumulative nitrogen leaching maximum means the total kilograms of nitrogen leached per hectare per year for the total area of a farm (including any <i>land</i>[^] not used for grazing) and is calculated using the values for each <i>land use capability class</i>* specified in Table 14.2. <u>The cumulative nitrogen leaching maximum* for the land[^] use must be determined using the version of Overseer applicable on the date the application is determined, calculated using the Overseer reference files* where the Overseer version differs from the version used to establish the cumulative nitrogen leaching maximums* in Table 14.2.</u>	
	New definition: Overseer Reference File means the Overseer input file specifications and methodology used to establish the <u>cumulative nitrogen leaching maximum* for each of the eight land use capability classes* specified in Table 14.2 as detailed in Schedule [ZA].</u>	

PC2 Decisions Version wording	Horizons Regional Council proposed wording	Day V3 proposed wording (attached to Supplementary Evidence of Michael Scott dated 28 March 2024)
	<u>New Schedules:</u> <u>Schedule [X] – How to determine the <i>nitrogen leaching risk*</i> of existing <i>intensive farming land uses*</i> (Pastoral Farming)</u> <u>Schedule [Y] – How to determine the <i>nitrogen leaching risk*</i> of existing <i>intensive farming land uses*</i> (Commercial Vegetable Growing)</u> <u>Schedule [Z] – Calculation of <i>Nitrogen Leaching Risk*</i> Limit</u> <u>Schedule [ZA] – <i>Overseer Reference Files: Overseer Inputs</i></u>	

Schedule [X]: How to determine the *nitrogen leaching risk** of existing *intensive farming land uses**

(Pastoral Farming)

Applying the Nitrogen Leaching Risk Scorecard

A pastoral farm's *nitrogen leaching risk** shall be determined by:

1. Using the Nitrogen Leaching Risk Scorecard set out below, and in accordance with the explanations and definitions provided, assigning points for the sub practices under the each of the six topics listed, to the extent they are relevant to the farming system; and
2. In the case of Topic 1 Stock Management, adjusting the Sub practice (a) points by the applicable percentage in Sub practice (c);
3. Summing the total number of Sub practice positive points and deducting the sub practice negative points for each Topic to generate 6 Topic scores; and
4. Summing all 5 Topic scores to provide a Part A aggregate Topics score; and
5. Determining what, if any, mitigations under Part B are applicable and applying the points and/or percentage adjustments applicable to the Part A aggregate Topic Score to generate the score that is *nitrogen leaching risk**.

PART A: Nitrogen Leaching Risk Scorecard - Pastoral land management practices

Topic 1: Stock Management

(a) Stock Management: Stocking Rate	Points
This sub practice addresses the number of grazed animals on the land, recognising that a high stocking rate is a key driver for increased nitrogen leaching on farm. The area (hectares) used in the calculation of the stocking rate is the effective area of the dairy farm. For the purpose of this Scorecard the effective area is the area of land used for grazing livestock (including the milking platform), cropping or as sacrifice paddocks. Dairy farm is the area of land used for <i>dairy farming*</i>. The stocking rate used for the calculation shall be the peak stocking rate. The peak stocking rate is the highest stocking rate on the farm over the 12-month period. The stock unit (su) values for farmed animals are as listed in Part C of this Schedule.	
≤ 16 su/ha	0
>16 - ≤20 su/ha	20
>20 - ≤28 su/ha	30
>28 - ≤32 su/ha	40
>32 su/ha	50

(b) Stock Management: Pasture Eaten The Scorecard moderates the stocking rate risk by assessing the total amount of dry matter eaten. It is acknowledged that stocking rate alone as a method of assessing nitrogen loss risk does not account for differences in size and age of animals, both of which will contribute to differences in total dry matter eaten. This sub practice accounts for differences in amount of dry matter eaten and therefore the amount of nitrogen ingested and returned to pasture as urinary N and N in excreta. The expression T DM/ha used below refers to tonnes of dry matter per hectare.	Points
≤ 10 T DM/ha	5
>10 – ≤12 T DM/ha	10
>12 – ≤14 T DM/ha	20
>14 – ≤16 T DM/ha	40
>16 – ≤18 T DM/ha	60
>18 T DM/ha	80
(c) Stock Management: Wintering Off the Milking Platform This sub practice moderates the stocking rate risk (sub practice (a)) by reducing the points attributed to that Sub practice. This is calculated using the percentage of time animals spend off farm between the months of May – August. For the purpose of this Scorecard, milking platform (MP) means that part of any dairy farm that is used for grazing lactating dairy cows during the milking season and includes the animal effluent disposal area. For the avoidance of doubt, it excludes land used for grazing heifers or the wintering-off of dairy cows.	Reduction of peak stocking rate points
>80 - ≤100% animals off MP	-50%
>60 - ≤80% animals off MP	-40%
>40 - ≤60% animals off MP	-30%
> 20 - ≤40% animals off MP	-20%
> 0 - ≤ 20% animals off MP	-10%
(d) Stock Management: Wintering Practices: This sub practice considers that extent of time stock are fed using different winter grazing practices. The risk is determined by allocating points on a pro rata basis according to the percentage of time (total hours) animals are kept on, and/or fed, using the listed systems. For the purpose of this Scorecard break feed fodder crop means feeding of stock within an area of pasture or crop- (a) within a paddock in which the fence is moved regularly to allow the stock to graze another area of pasture or crop within the paddock; or (b) within a paddock that is subdivided into cells or grid using temporary fencing; and where the stock as moved regularly. An extensive fodder crop means a form of grazing on crop that is not break feed fodder crop. Barn or wintering pad means any hard structure used for feeding livestock from which effluent is captured and directed to an authorised effluent management system.	Points

Off pasture (barn or wintering pad)	-40
On pasture	0
Extensive fodder crop	20
Break feed fodder crop	40

Topic 2: Nitrogen Fertiliser:

(a) Nitrogen Fertiliser: Total N	Points
This sub practice assesses the level of risk associated with nitrogen fertiliser application. The total amount of nitrogen used per annum is the main driver for the nitrogen management risk factor. This is calculated by summing the total amount of nitrogen fertiliser applied annually (kg / ha) across the effective area .	
N Fertiliser applied ≤ 50 kg/ha	0
N Fertiliser applied $>50 - \leq 100$ kg/ha	10
N Fertiliser applied $>100 - \leq 150$ kg/ha	30
N Fertiliser applied $>150 - \leq 175$ kg/ha	50
N Fertiliser applied $>175 - \leq 200$ kg/ha	60
N Fertiliser applied $>200 - \leq 225$ kg/ha	70
N Fertiliser applied $>225 - \leq 250$ kg/ha	90
N Fertiliser applied $>250 - \leq 300$ kg/ha	150
N Fertiliser applied >300 kg/ha	200
(b) Nitrogen Fertiliser: Conversion Efficiency	Points
The conversion efficiency calculates how many kilograms of milk solids are produced per kilogram of nitrogen (N) applied. This sub factor is calculated by simply dividing the total amount of milk solids (kg MS) produced by the total kilograms of nitrogen applied via fertiliser.	
kgMS/kgN Fertiliser >25	-40
kgMS/kgN Fertiliser $>13 - \leq 25$	-20
kgMS/kgN Fertiliser $>9 - \leq 13$	0
kgMS/kgN Fertiliser $>5 - \leq 9$	20
kgMS/kgN Fertiliser ≤ 5	40
(c) Nitrogen Fertiliser: Timing of Application:	Points
This sub practice assesses the timing of application of nitrogen fertilisers (which influences nitrogen leaching). The scoring of this sub practice works by grouping each of the farm's nitrogen (N) fertiliser applications into one of the three time periods and recording the highest score of those time periods. (That is, if fertiliser is applied in May -June and in September to April, then this sub practice will attract 40 points).	
N Fertiliser applied September – April	-10
N Fertiliser applied July - August	20
N Fertiliser applied May - June	40

(d) Nitrogen Fertiliser: Average Monthly Application Rates	Points
This sub practice calculates the average amount of N applied in any given month to a block by summing all monthly fertiliser applications. Total nitrogen applied is then divided across the block(s) it was applied to. For example, where an N fertiliser application is applied to multiple blocks in a month, the application is to be pro-rata across the blocks it was applied to. This is necessary because Product A (20% Nitrogen) could be applied every month across Block 1 and Block 2 but Product B (46% Nitrogen) was applied every month across Block 1 only.	
Highest N fertiliser applied is ≤ 25 kg/ha	-20
Highest N fertiliser applied is > 25 kg/ha	0

Topic 3: Effluent Management

(a) Effluent Management: Storage	Points
This sub practice is scored according to the extent to which the recommend effluent storage capacity is installed. It is expressed as percentage of the storage calculated using the Dairy Effluent Storage Calculator (DESC).	
Although the scoring scale provided below in increments 10%, scores should be allocated in accordance with a sliding scale from 0 to 100 based on the percentage of required storage that is provided. That is, if a farm has 95% of the required storage it will attract 5 risk points.	
The DESC may be accessed at: https://www.dairynzdesc.co.nz	
100% storage	0
90% storage	10
80% storage	20
70% storage	30
60% storage	40
50% storage	50
40% storage	60
30% storage	70
20% storage	80
10% storage	90
No storage	100
(b) Effluent Management: Discharge Application Depth:	Points
The application depth is the volume of effluent discharged to soil. It is measured as the depth following a single effluent irrigation cycle.	
For the purpose of this scorecard High risk soils and Low risk soils are as described at: https://www.horizons.govt.nz/HRC/media/Media/Soil-Risk-list.pdf	
High risk soils + ≤ 10 mm	0
High risk soils + >10 mm	20
Low risk soils + ≤ 24 mm	0
Low risk soils + >24 mm	20

(c) Effluent Management: Disposal Area Without a Feed Pad	Points
The sub practice is scored according to the sufficiency of the effluent disposal area for the farm system. It is calculated simply as the area (hectares) of effluent disposal area per hundred cows, or part thereof. For the purpose of this Scorecard, a feed pad is an area of hard surface used for the regular supplementary feeding and loafing of cattle where the animal effluent is collected for disposal to land in accordance with the rules of this regional plan.	
Disposal area > 4 ha/100 cows (no feed pad)	0
Disposal area >3 – ≤4 ha/100 cows (no feed pad)	10
Disposal area >2 – ≤3 ha/100 cows (no feed pad)	20
Disposal area ≥1 – ≤2 ha/100 cows (no feed pad)	30
Disposal area <1 ha/100 cows (no feed pad)	40
(d) Effluent Management: Disposal Area With a Feed Pad	Points
Disposal area >7ha/100 cows (with feed pad)	0
Disposal area >5 – ≤7 ha/100 cows (with feed pad)	10
Disposal area >3 – ≤5 ha/100 cows (with feed pad)	20
Disposal area ≥1 – ≤3 ha/100 cows (with feed pad)	30
Disposal area <1 ha/100 cows (with feed pad)	40

Topic 4: Imported Feed

(a) Imported N: Total Imported N	Points
This sub practice is scored according to the total amount of nitrogen (N) introduced to the farm via all imported supplementary feed divided by the effective area of the farm. The N content of feed can be found at: https://www.dairynz.co.nz/feed/supplements/feed-values/ For the purpose of this Scorecard, imported supplementary feed means any animal feed supplied to animals on a dairy farm that is not grown on that dairy farm.	
Total imported N from feed ≤ 40 kg/ha	0
Total imported N from feed >40 – ≤80 kg/ha	20
Total imported N from feed >80 – ≤120 kg/ha	40
Total imported N from feed >120 – ≤160 kg/ha	60
Total imported N from feed > 160 kg/ha	80
(b) Imported N: Average N Content of Imported Supplements	Points
This sub practice is scored according to the average N content of the imported supplementary feed. The average % of nitrogen in the total amount of imported supplementary feed is calculated on a pro rata basis.	
Imported Feed with average N % ≤ 1.0	0
Imported Feed with average N % >1.0 - ≤ 1.5	3
Imported Feed with average N % >1.5 - ≤ 1.75	6
Imported Feed with average N % >1.75- ≤ 2.0	9
Imported Feed with average N % >2.0 - ≤ 2.25	12

Imported Feed with average N % >2.25 - ≤ 2.5	15
Imported Feed with average N % >2.5 - ≤ 3.0	18
Imported Feed with average N % > 3.0	20
(c) Imported N: Conversion Efficiency This sub practice calculates the conversion efficiency of nitrogen (N) introduced via imported supplementary feed to product. This measures the efficiency of nitrogen from imported supplementary feed converted into kilograms of milk solids (kg MS).	Points
Kg MS / Kg N from supplements: >50	-40
Kg MS / Kg N from supplements: >30 – ≤50	-20
Kg MS / Kg N from supplements: >20 – ≤30	0
Kg MS / Kg N from supplements: >10 – ≤20	20
Kg MS / Kg N from supplements: ≤10	40

Topic 5: Cropping and Cultivation

(a) Cropping and Cultivation: Minimum Tillage This sub practice assesses the risk of release of mineral nitrogen resulting from cultivation. The total percentage of the farm cultivated using minimum tillage is calculated as the area of minimum tillage divided by the total effective area of the farm.	Points
≤2% of farm cultivated annually	0
>2% – ≤4% of farm cultivated annually	5
>4% – ≤6% of farm cultivated annually	10
>6% – ≤8% of farm cultivated annually	15
>8% – ≤10% of farm cultivated annually	20
>10% – ≤15% of farm cultivated annually	30
>15% – ≤20% of farm cultivated annually	40
>20% of farm cultivated annually	50
(b) Cropping and Cultivation: Conventional Cultivation This sub practice assesses the risk of nitrogen leaching associated with conventional cultivation. The total percentage of the farm cultivated using conventional cultivation is calculated as the conventionally cultivated area divided by the total effective area of the farm.	Points
>0 - 2% of farm cultivated annually	10
>2% – ≤4% of farm cultivated annually	20
>4% – ≤6% of farm cultivated annually	30
>6% – ≤8% of farm cultivated annually	40
>8% – ≤10% of farm cultivated annually	50
>10% – ≤15% of farm cultivated annually	70
>15% – ≤20% of farm cultivated annually	90
>20% of farm cultivated annually	120

(c) Cropping and Cultivation: Season of Forage Crop Grazing	Points
This sub practice considers the higher risk of leaching associated with winter harvesting. The season of grazing is taken directly from the harvest date recorded for each crop.	
Crop grazing (summer) 1 October – 31 March	0
Crop grazing (winter) 1 April – 30 September	30
(d) Cropping and Cultivation: Fertiliser Applied in Winter	Points
This sub practice considers whether nitrogen fertiliser is applied to crops during high-risk winter months.	
No fertiliser applied during 1 May to 31 August	0
Fertiliser applied during 1 May to 31 August	30

PART B - Pastoral Farming Mitigations

(a) Constructed Wetlands	Reduction in overall risk score
Points are deducted based on the catchment area that drains to any constructed wetland on a dairy farm. A constructed wetland is a wetland that has been deliberately constructed to intercept surface and/or subsurface contaminant flows. <u>The reduction is adjusted on a pro rata basis to reflect the area of the catchment as a proportion of the entire farm area.</u>	
The reference to 'catchment area' below is to the area of the farm that drains to the constructed wetland.	
0.5% of the catchment area	-5
1% of the catchment area	-12.5
2% of the catchment area	-18
3% of the catchment area	-21
4% of the catchment area	-24.5
5% of the catchment area	-26
(b) Plantain: % of dry matter in diet (by mass over summer and autumn)	Reduction in overall risk score
≤10% of feed	0
>10 – ≤20% of feed	-6% -10%
>20 – ≤30% of feed	-12% -20%
>30% of feed	-18% -30%
(c) Retired areas	
<u>Where areas of the farm are retired from farming (i.e. no livestock, fertilizer, supplements, effluent or cropping) the overall risk score can be reduced by a factor equal to: (retired area) divided by (entire area of farm).</u>	

PART C: Stock unit equivalents

	Breed	Stock Unit Equivalent (SU)
Milking	Friesian/Jersey Cross	8
Milking	Ayrshire	6.7
Milking	Friesian	8.5
Milking	Jersey	6.5
Milking	Other	8
Replacements	Friesian/Jersey Cross	4.2
Replacements	Ayrshire	3.6
Replacements	Friesian	4.5
Replacements	Jersey	3.5
Replacements	Other	4.3
Calves_to_Weaning		2
Breeding_Bulls		5.5
Sheep - Ewe		1
Sheep - Ram		0.8
Sheep - Lamb		0.7
Deer - Fawn		1.2
Deer - Yearling		1.8
Deer - Stag		2.2
Deer - Hind		2
Dairy - Carryover		5.5
Beef - Bull		5.5
Beef - Cow		5.5
Beef - Calf		3.5
Beef - Yearling		3.5
Goat - Kids		0.6
Goat - Adult		0.8
Horse		11
Pony		7
Alpaca - Adult		0.7
Alpaca - Cria		0.4
Llama - Adult		1.8
Llama - Cria		1
Pig		1.6

Schedule [Y]: How to determine the *nitrogen leaching risk of existing *intensive farming land uses** (Commercial Vegetable Growing*)**

Applying the Nitrogen Leaching Risk Scorecard

The *nitrogen leaching risk** of *commercial vegetable growing** shall be determined by:

1. Using the Nitrogen Leaching Risk Scorecard set out below, and in accordance with the explanations and definitions provided, assigning points for the sub practices under the each of the two topics listed, to the extent they are relevant to the vegetable growing system; and
2. For all sub-practices, risk scores are derived by multiplying the points (P) by the proportion of the productive vegetable growing area occupied by the sub-practice (%); and
3. The total *nitrogen leaching risk** is calculated by summing the total number of sub practice positive points and deducting the sub practice negative points; and
4. Where the *commercial vegetable growing** activity occurs in conjunction with any other intensive farming *land^* use, separate *nitrogen leaching risk** scores must be calculated for each intensive farming *land^* use.

PART A: Nitrogen Leaching Risk Scorecard – *Commercial Vegetable Growing land management practices**

Topic 1: Nitrogen Fertiliser Practices

(a) Nitrogen fertiliser annual application rate	Points (P)	Proportion of productive area (%)	Risk Score = P x %
N fertiliser: <100 kgN /ha	0		
N fertiliser: 100-150 kgN /ha	30		
N fertiliser: 151-200 kgN /ha	60		
N fertiliser: 201-250 kgN /ha	90		
N fertiliser: 251-300 kgN /ha	150		
N fertiliser: 301-400 kgN /ha	200		
N fertiliser: >400 kgN /ha	250		

(b) Nitrogen fertiliser application rate per application (individual)	Points (P)	Proportion of productive area (%)	Risk Score = P x %
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N fertiliser: <25 kg /ha	-30		
N fertiliser: 25-50 kg /ha	0		
N fertiliser: 51-75 kg /ha	30		
N fertiliser: 76-100 kg /ha	60		
N fertiliser: >100 kg /ha	90		

(c) Nitrogen balance/budget	Points (P)	Proportion of productive area (%)	Risk Score = P x %
Yes	-50		
No	0		

(d) Nitrogen soil testing	Points (P)	Proportion of productive area (%)	Risk Score = P x %
Before every nitrogen fertiliser application	-50		
At the beginning of each crop cycle	-30		
One a year	0		
Never	50		

(e) Crop establishment fertiliser application method	Points (P)	Proportion of productive area (%)	Risk Score = P x %
Incorporated, GPS banded, controlled application	-20		
Surface, GPS banded, controlled application	-15		
Incorporated, banded	-10		
Surface, banded	-5		
Surface broadcast, incorporated	10		
Surface broadcast	20		

(f) Side fertiliser application method	Points (P)	Proportion of productive area (%)	Risk Score = P x %
GPS banded, controlled application	-15		

Banded	-5		
Broadcast	20		

Topic 2: Soil Health

(a) Practices between crops	Points (P)	Proportion of productive area (%)	Risk Score = P x %
Cover crop	-30		
Fallow < 4 weeks	0		
Fallow 4 – 12 weeks	25		
Fallow > 12 weeks	50		
(b) Catch crops (cut-and-carry)	Points (P)	Proportion of productive area (%)	Risk Score = P x %
Yes	-20		
No	0		

PART B: Definitions

Nitrogen fertiliser annual application rate (sub practice 1(a)): means the total quantity of elemental nitrogen fertiliser applied divided by the productive area. This should be split into the different rate bands based on the proportion of productive area (i.e., 50% at 100 – 150 kgN/ha and 50% at 151 – 200 kgN/ha). This is not a whole operation average.

Nitrogen fertiliser application rate per application (sub practice) 1(b)): means the amount of elemental nitrogen applied per hectare for a single application. This should be split into the different rate bands based on the proportion of productive area where rates vary between crops. This is not a whole operation average.

Catch crop: means any crop that is grown with the primary objective of catching excess nitrogen in soils that otherwise may be lost through leaching. At harvest this crop is exported off farm. Examples include maize and grass grown for silage or hay.

Cover crop: means any crop that is grown with the primary objective of catching excess nitrogen in soils that otherwise may be lost through leaching. Before the planting of the next vegetable crop the cover crop is mulched and/or incorporated into the soil.

Fallow: means a period of time after crop harvest where the soil remains bare.

Nitrogen soil testing (mineral N): means the use of soil mineral N testing. E.g., Quick N test or laboratory based mineral N.

Nitrogen balance/budget: means a decision support tool to help a grower understand the inputs and outputs of nitrogen for a crop growing system. Nitrogen outputs are balanced against nitrogen inputs in a graph or table, categorised by source or destination. Nitrogen budgets assist growers with appropriate nitrogen fertiliser recommendations.

Productive Area: ~~means the total productive vegetable growing area within the boundaries of the land[^] (boundary to boundary). This~~ The area denominator in Part A 1 (a) and 1 (b) is an operation's total productive vegetable growing area. This include both owned and leased land[^]. Productive area is all the area within the boundaries of the productive vegetable growing area. This includes the block or paddock total area where the crop is grown, including wheel tracks and beds that are not cropped, as well as headlands and races. ~~This includes both owned and leased land. While the total land area cannot increase without consent, the location of leased land may change from year to year. The level of risk on the all leased land must be assessed and must not increase the overall risk level.~~ Productive area does not include the land occupied by buildings and yards. Productive vegetable growing area does not include areas that cannot be cropped such as bush blocks ~~of indigenous* vegetation~~, nor does it include ~~permanent pasture (being land[^] in pasture grown~~ for longer than 2 years).

Crop establishment fertiliser application methods:

Incorporated: means the fertiliser is applied into the soil at the time of application.

GPS banded: means the placement of fertiliser in continuous narrow ribbons, usually at specific distances from the seeds or plants, recorded using GPS.

Banded: means the placement of fertiliser in continuous narrow ribbons, usually at specific distances from the seeds or plants.

Surface: means the application of fertiliser which remains on top of the soil.

Broadcast: means the spreading of fertiliser evenly over a large area. The fertiliser then remains on the soil surface to break down.

Controlled application: means a method of applying fertiliser in a precise and targeted manner using an electronic rate controller that adjusts rates during spreading irrespective of speed.

Schedule [Z] - Calculation of Nitrogen Leaching Risk Limit*

Part A – Nitrogen leaching risk limit* where a farm is predominantly within the parameters described by a single cell of Table 14-2A

Except as set out in Part B below, the *Nitrogen Leaching Risk limit** is as set out in Table 14-2A (for pastoral farming) and Table 14-2B (for commercial vegetable growing).

A *Nitrogen Leaching Risk limit** shall be regarded as being applicable to an intensive farming *land^* use if at least 90% of the area of that *land^* is located within the rainfall and profile available water categories described in Tables 14.2A and 14.2B as applying to that *Nitrogen Leaching Risk limit**.

For the purpose of applying Tables 14.2A and 14.2B, rainfall shall be determined by reference to Map XX and profile available water shall be determined by reference to Map YY.

Part B - Nitrogen leaching risk limit* where *land^* is located within multiple cells in Table 14.2A

This part applies where more than 10% of the *land^* occupied by an intensive farming *land^* use activity is located :

- in one rainfall category (as specified in Table 14.2A and shown on Map XX) and the balance of the *land^* is located in one or more of the other categories; or
- in one category of profile available water (as specified in Table 14.2A and shown on Map YY) and the balance in one or more of the other categories.

In the case of either (a) or (b) above, the *Nitrogen Leaching Risk Limit** shall be calculated as follows:

Nitrogen leaching risk limit* = % of area of the *land^* in each cell of Table 14.2A multiplied by the score in that cell *plus* the percentage of the area of the *land^* in any other cell multiplied by the score in that other cell.

For example: *Nitrogen leaching risk limit** = (%L₁ x Y) + (%L₂ x Z)

Where:

%L₁ is the percentage of the *land^* that has rainfall and profile available water described by a cell in Table 14.2A;

Y is the risk score in the cell of Table 14.2A to which %L₁ applies;

%L₂ is the percent of the property that has rainfall and profile available water described in a cell of Table 14.2A other than the cell referred to in %L₁; and

Z is the score within the cell of Table 14.2A to which %L₂ applies.

Illustrated Example:

Using the table below, if a 200ha farm in the 1000-1300 rainfall category has 50% of its land area in the 'medium soil' and 50% in the 'coarse soil' category, the Nitrogen leaching risk limit is 50% x 150 (75) plus 50% x 120 (60) = a limit of 135.*

Rainfall	Profile Available Water		
	151-350mm ('fine soil')	61-150mm ('medium soil')	0-60mm ('coarse soil')
Rainfall 1 <1000 mm/year	-	-	-
Rainfall 2 1000-1300 mm/year	-	50% x 150 = 75	50% x 120 = 60
Rainfall 3 1300-1600 mm/year	-	-	-
Rainfall 4 >1600 mm/year	-	-	-

Schedule [ZA]:

Overseer Reference Files: Overseer Inputs

Although there are substantial differences between the values of inputs to the eight Overseer reference files, numerous inputs are common to all the files. Therefore, all the inputs used to generate the reference file for the LUC I farm, which is the base farm, are listed. Applying Overseer to the following LUC files will establish the Year 1 *cumulative nitrogen leaching maximums**. The applicable *cumulative nitrogen leaching maximums** for Year 5, Year 10 and Year 20 are established by applying the following percentage reductions:

	LUC I	LUC II	LUC III	LUC IV	LUC V	LUC VI	LUC VII	LUC VIII
% decrease to calculate:								
Year 5	10.0%	7.4%	12.5%	11.1%	18.8%	33.3%	25.0%	0.0%
Year 10	13.3%	18.5%	20.8%	22.2%	18.8%	33.3%	25.0%	0.0%
Year 20	16.7%	22.2%	25.0%	27.8%	25.0%	33.3%	25.0%	0.0%

The LUC I (base) file:

Farm scenario

Farm

- Location: By Region - East Coast North Island

Block setup

- Block areas: Total 110 ha: 100 ha Non-effluent, 10 ha Effluent
- Relative productivity: No difference between blocks

Dairy animals

- Peak cow numbers: 374 cows (breeding numbers NOT constant)
- Breed: Friesian
- Average weight: Default ~~reading falsely as 462 kg/animal~~, actual 525 kg/animal (default for 6.2.3)
- Replacement rate: Default 23% (default for 6.2.3)
- Milk solids (kg/ha): 1275 kg MS/ha
- Lactation length: 270 (default for 6.2.3)
- Replacements grazed off: Weaning
- Effluent disposal system: Holding pond;
- Pond solids: Solids spread on selected blocks; ponds empty every 1 year
- Liquid effluent: Spray regularly

Non-effluent block

General

- Topography: Flat
- Distance from coast: 50 km

Climate

- Daily rainfall pattern: 731-1450 mm, low
- Rainfall: 1200 mm
- Temperature: Default 12.3 °C (default for 6.2.3)
- PET: Use default PET (801-950 mm/yr)
- PET seasonal variation: Moderate

Pasture

- Development status: No input for development status
- Pasture type: Ryegrass/white clover
- Specify pasture quality: Not specified (defaults for 6.2.3 are different to defaults for v5.2.6, but are not shown)

Soil

- Soil order: Recent
- Top soil texture: Silt loam
- Lower profile: Medium
- Soil tests: "Replace missing test data with typical values"
- Susceptibility to pugging: Occasional

Supplements made

- Category: Silage
- Weight: 80 tonnes (dry weight basis) (automatic in v5.2.6)
- Destination: Non-effluent block

Effluent block*General*

- Topography: Flat
- Distance from coast: 50 km

Climate

- Daily rainfall pattern: 731-1450 mm, low
- Rainfall: 1200 mm
- Temperature: Default 12.3 °C (default for 6.2.3)
- PET: Use default PET (801-950 mm/yr)
- PET seasonal variation: Moderate

Pasture

- Development status: No input for development status
- Pasture type: Ryegrass/white clover
- Specify pasture quality: Not specified (defaults for 6.2.3 are different to defaults for v5.2.6, but are not shown)

Soil

- Soil order: Recent
- Top soil texture: Silt loam
- Lower profile: Medium
- Soil tests: "Replace missing test data with typical values"
- Susceptibility to pugging: Occasional

Supplements made

- Category: Silage
- Weight: 8 tonnes (dry weight basis) (automatic in v5.2.6)
- Destination: Effluent block

Effluent

- Effluent application rate: 12-24 mm
- Solids effluent application: Pond solids/sludge (December)

The LUC II file:**Farm scenario***Farm*

- Location: By Region - East Coast North Island

Block setup

- Block areas: Total 110 ha: 100 ha Non-effluent, 10 ha Effluent
- Relative productivity: No difference between blocks

Dairy animals

- Peak cow numbers: 341 cows (breeding numbers NOT constant)

Dairy animals

- Peak cow numbers: 374 cows (breeding numbers NOT constant)
- Breed: Friesian
- Average weight: Default reading falsely as 462 kg/animal, actual 525 kg/animal (default for 6.2.3)
- Replacement rate: Default 23% (default for 6.2.3)
- Milk solids (kg/ha): 1150 kg MS/ha
- Lactation length: 270 (default for 6.2.3)
- Replacements grazed off: Weaning
- Effluent disposal system: Holding pond;
- Pond solids: Solids spread on selected blocks; ponds empty every 1 year
- Liquid effluent: Spray regularly

Non-effluent block*Soil*

- Soil order: Brown

Supplements made

- Category: Silage
- Weight: 73 tonnes (dry weight basis) (automatic in v5.2.6)

Effluent block

- Soil order: Brown

Supplements made

- Category: Silage
- Weight: 7 tonnes (dry weight basis) (automatic in v5.2.6)

The LUC III file:**Farm scenario***Farm*

- Location: By Region - East Coast North Island

Block setup

- Block areas: Total 110 ha: 100 ha Non-effluent, 10 ha Effluent
- Relative productivity: No difference between blocks

Dairy animals

- Peak cow numbers: 297 cows (breeding numbers NOT constant)
- Breed: Friesian
- Average weight: Default reading falsely as 462 kg/animal, actual 525 kg/animal (default for 6.2.3)
- Replacement rate: Default 23% (default for 6.2.3)
- Milk solids (kg/ha): 1120 kg MS/ha
- Lactation length: 270 (default for 6.2.3)
- Replacements grazed off: Weaning
- Effluent disposal system: Holding pond;
- Pond solids: Solids spread on selected blocks; ponds empty every 1 year
- Liquid effluent: Spray regularly

Non-effluent block*General*

- Topography: Rolling

Soil

- Soil order: Pallic

Supplements made

- Category: Silage
- Weight: 64 tonnes (dry weight basis) (automatic in v5.2.6)

Effluent block*General*

- Topography: Rolling

Soil

- Soil order: Pallic

Supplements made

- Category: Silage
- Weight: 6 tonnes (dry weight basis) (automatic in v5.2.6)

The LUC IV file:**Farm scenario***Farm*

- Location: By Region - East Coast North Island

Block setup

- Block areas: Total 110 ha: 100 ha Non-effluent, 10 ha Effluent
- Relative productivity: No difference between blocks

Dairy animals

- Peak cow numbers: 209 cows (breeding numbers NOT constant)
- Breed: Friesian
- Average weight: Default reading falsely as 462 kg/animal, actual 525 kg/animal (default for 6.2.3)
- Replacement rate: Default 23% (default for 6.2.3)
- Milk solids (kg/ha): 700 kg MS/ha
- Lactation length: 270 (default for 6.2.3)
- Replacements grazed off: Weaning
- Effluent disposal system: Holding pond;
- Pond solids: Solids spread on selected blocks; ponds empty every 1 year
- Liquid effluent: Spray regularly

Non-effluent block*General*

- Topography: Rolling

Soil

- Soil order: Pallic

Supplements made

- Category: Silage
- Weight: 45 tonnes (dry weight basis) (automatic in v5.2.6)

Effluent block*General*

- Topography: Rolling

Soil

- Soil order: Pallic

Supplements made

- Category: Silage
- Weight: 4 tonnes (dry weight basis) (automatic in v5.2.6)

The LUC V file:**Farm scenario***Farm*

- Location: By Region - East Coast North Island

Block setup

- Block areas: Total 110 ha: 100 ha Non-effluent, 10 ha Effluent
- Relative productivity: No difference between blocks

Dairy animals

- Peak cow numbers: 176 cows (breeding numbers NOT constant)
- Breed: Friesian
- Average weight: Default reading falsely as 462 kg/animal, actual 525 kg/animal (default for 6.2.3)
- Replacement rate: Default 23% (default for 6.2.3)
- Milk solids (kg/ha): 590 kg MS/ha
- Lactation length: 270 (default for 6.2.3)
- Replacements grazed off: Weaning
- Effluent disposal system: Holding pond;
- Pond solids: Solids spread on selected blocks; ponds empty every 1 year
- Liquid effluent: Spray regularly

Non-effluent block*General*

- Topography: Easy hill

Soil

- Soil order: Pallic

Supplements made

- Category: Silage
- Weight: 38 tonnes (dry weight basis) (automatic in v5.2.6)

Effluent block*General*

- Topography: Easy hill

Soil

- Soil order: Pallic

Supplements made

- Category: Silage
- Weight: 4 tonnes (dry weight basis) (automatic in v5.2.6)

The LUC VI file:**Farm scenario***Farm*

- Location: By Region - East Coast North Island

Block setup

- Block areas: Total 110 ha: 100 ha Non-effluent, 10 ha Effluent
- Relative productivity: No difference between blocks

Dairy animals

- Peak cow numbers: 165 cows (breeding numbers NOT constant)
- Breed: Friesian
- Average weight: Default reading falsely as 462 kg/animal, actual 525 kg/animal (default for 6.2.3)
- Replacement rate: Default 23% (default for 6.2.3)
- Milk solids (kg/ha): 555 kg MS/ha
- Lactation length: 270 (default for 6.2.3)
- Replacements grazed off: Weaning
- Effluent disposal system: Holding pond;
- Pond solids: Solids spread on selected blocks; ponds empty every 1 year
- Liquid effluent: Spray regularly

Non-effluent block*General*

- Topography: Easy hill

Soil

- Soil order: Pallic

Supplements made

- Category: Silage
- Weight: 36 tonnes (dry weight basis) (automatic in v5.2.6)

Effluent block*General*

- Topography: Easy hill

Soil

- Soil order: Pallic

Supplements made

- Category: Silage
- Weight: 4 tonnes (dry weight basis) (automatic in v5.2.6)

The LUC VII file (differences from LUC I – base):**Farm scenario***Farm*

- Location: By Region - East Coast North Island

Block setup

- Block areas: Total 110 ha: 100 ha Non-effluent, 10 ha Effluent
- Relative productivity: No difference between blocks

Dairy animals

- Peak cow numbers: 5 cows (breeding numbers NOT constant)
- Breed: Friesian
- Average weight: Default reading falsely as 462 kg/animal, actual 525 kg/animal (default for 6.2.3)
- Replacement rate: Default 23% (default for 6.2.3)
- Milk solids (kg/ha): 185 kg MS/ha
- Lactation length: 270 (default for 6.2.3)
- Replacements grazed off: Weaning
- Effluent disposal system: Holding pond;
- Pond solids: Solids spread on selected blocks; ponds empty every 1 year
- Liquid effluent: Spray regularly

Non-effluent block*General*

- Topography: Easy hill

Soil

- Soil order: Pallic

Supplements made

- Category: Silage
- Weight: 12 tonnes (dry weight basis) (automatic in v5.2.6)

Effluent block*General*

- Topography: Easy hill

Soil

- Soil order: Pallic

Supplements made

- Category: Silage
- Weight: 1 tonnes (dry weight basis) (automatic in v5.2.6)

The LUC VIII file:

Farm scenario

Farm

- Location By Region - East Coast North Island

Block setup

- Block areas: Total 110 ha: ~~100 ha Non-effluent, 10 ha Effluent~~
- Relative productivity: No difference between blocks

Beef/dairy grazers

- Block areas: 1 RSU

Block setup

- Block areas: 109 ha Trees, 1 ha Pasture

Trees

General

- Bush type Native

Pasture

Block general

- Topography: Steep hill

Soil

- Soil order: Pallic

Appendix 2

Option 1: Council Reply Provisions	
Achieving the PC2 objectives:	Overcomes the policy obstacle; restores workable provisions (for pastoral and CVG); provides for future Overseer updates either increasing or decreasing N leaching outputs; updates the Table 14.2 CNLMs using the most recent version of Overseer; provides viable consenting pathways for existing IFLU that exceed the recalibrated CNLMs; reinforces the importance of GMPs, BMPs and additional measures to drive N leaching reduction and manage other contaminants; requires applications to be lodged within 12 months and practice changes to occur within specified time frames (achieves the PC2 aim of restoring effective regulation as soon as practicable); is expected to drive similar practice changes, therefore (according to Dr Snelder) similar modest contribution to reducing SIN loads in rivers as those modelled for DV-PC2.
Giving effect to the RPS:	Provides certainty of nitrogen leaching outcome for IFLU consents; therefore confidence that the provisions will make a contribution towards achieving the strategies for surface water and groundwater; specifies more clearly the requirement to consider effects on sensitive downstream water bodies and mana whenua values and Schedule E water quality targets; specifically references RPS policies 5-2 to 5-7 (in Policy 5-8).
Efficiency:	Optimises administrative efficiency by assigning the least restrictive regulatory intervention (controlled activity) which achieves certainty of land use practice change and water quality improvement; the requirements for lodgement of applications and implementation of GMPs, BMPs and mitigations within specified periods will ensure effectiveness is achieved in as short a time as possible (i.e. efficiently).
Effectiveness and practicability of implementation:	The NRAT risk score assessment is supported by grower and farmer representatives, is expected to be practicable and straightforward for farmers and growers to apply and is expected to be readily adopted and implemented; the % reduction pathway will be practicable for dairy IFLU but not for CVG growers (but the NRAT will provide a practicable pathway); both the NRAT and % reduction requirements are expected to drive farm practice changes that materially reduce nitrogen leaching and better manage other contaminants; compliance monitoring will focus on actual land use practices and will be readily verified on farm; Overseer subscriptions for dairy IFLU may have lapsed, making it more difficult to generate baseline Overseer budgets for some dairy IFLU using the % reduction pathway.
Environmental, economic, social, cultural benefits and costs:	Implementation of Option 1 will result in modest reductions in SIN in rivers in the targeted water management sub-zones and downstream receiving environments; will require on-farm practice changes that are achievable and financially feasible and will enable most existing IFLU to continue; will provide certainty about the changes required on farm which will support business confidence and provide certainty of future for farming families and communities; the modest water quality improvements will ensure existing IFLU do not compound degraded water quality (although

Option 1: Council Reply Provisions	
	the modest improvement will not address or redress impacts on cultural values associated with degraded water quality).
Economic growth and employment:	The economic evidence is that all options will have neutral impact at regional scale.
Risk of acting or not acting where information is uncertain or insufficient:	The work done to date on the range of farm practice changes available and feasibility of these for pastoral and CVG systems, and the water quality (SIN) modelling work mean there is a high degree of certainty about the likely outcomes (on farm, for water quality and for farming communities). The risks associated with uncertainty have been addressed by the technical experts and their work. The uncertainties associated with use of a relatively new NRAT risk assessment tool are acknowledged but are not expected to be out of step with the uncertainties associated with reliance on Overseer (given that the NRAT has been developed using similar key drivers of nitrogen leaching as Overseer and tested using Overseer).
S. 30 functions:	Noting the expected modest reduction in SIN and the initiatives within the Option 1 provisions to require improved on-farm management of nutrients and sediment, Option 1 will contribute to enabling Horizons to give effect to its s. 30 functions.
Giving effect to the NPS-FM & NZCPS:	Noting the expected modest reduction in SIN and the initiatives within the Option 1 provisions to require improved on-farm management of nutrients and sediment, Option 1 will contribute to giving effect to the NPS-FM and NZCPS; although Option 1 will not itself reverse the acknowledged water degradation, it will reduce the contribution from existing IFLU.
MfE advice on Overseer outputs as absolute numbers:	Retention of Table 14.2 perpetuates the difficulties associated with imposing Overseer outputs as absolute limits; however, Option 1 establishes a framework where Table 14.2 is supported by alternatives that do not rely on imposing Overseer outputs as absolute numbers.
Will outputs be certain, consistently applied, verifiable, measurable, accessible for farmers, show relative change over time:	Yes (and incorporating a requirement for periodic reporting using Overseer allows for monitoring of change in nitrogen leaching over time).
Potential for legacy consents:	The requirement for leaching risk to either comply with Table 14.2, or be as low as practicable for the farm system and particular soil and rainfall situations or, to achieve a minimum % reduction limits the potential for adverse

Option 1: Council Reply Provisions	
	legacy consents; the proportion of existing IFLU that will need to pursue a discretionary activity consent (where the nitrogen leaching result is less certain) is confined and the risk to the environment associated with these consents is therefore limited; the ten year duration limit also limits the potential impact of legacy consents; and the requirement to lodge applications for consent within 12 months ensures the start date for any potential legacy consents is constrained.
Certainty of outcome:	The specified requirements for all three controlled activity pathways provide a high degree of certainty of nitrogen leaching reduction outcome; the requirements imposed on and nitrogen leaching outcome for the existing IFLU that are unable to comply with these limits and seek discretionary activity consent is less certain (but the proportion of these is smaller than the pool of IFLU likely to be regulated as controlled activities).
Equity:	The provisions provide an equitable opportunity for most existing IFLU to apply for controlled activity consent on a consistent basis that applies the same demands on all of them in terms of nitrogen reductions required. Where IFLU are unable to achieve the reductions required to qualify as controlled activities, requiring a more onerous discretionary activity application process, this is due to environmental effects. The Council Reply Provisions are more onerous in the reductions in nitrogen leaching required compared with the extent of reductions authorised by consents previously.
Information gathering for catchment planning:	IFLU that comply with Table 14.2 will provide some useful information for benchmarking land use and nitrogen leaching assumptions for future catchment modelling (limited to the minority of IFLU and limited to the targeted water management sub-zones). Including, as a condition of consent, a requirement to supply an Overseer budget at a specified date common to all PC2 consented IFLU would provide additional information (also limited to the targeted water management sub-zones) which would improve information for validating catchment modelling assumptions (for those sub-zones). The information would be helpful, but is not essential.
Underlying biophysical characteristics:	Table 14.2, the NRAT and, to an extent, the % reduction pathways account for underlying biophysical characteristics in a manner that can be consistently applied. Professor Horne considers the specified reduction pathway to be linked to the table, through driving reductions to the table, or close to it. The policy framework for IFLU that do not comply with these limits also requires consideration of underlying biophysical characteristics.
Suitable for pastoral and CVG:	Reliance on Overseer in the application of Table 14.2 has acknowledged limitations for CVG that are not addressed by a simple recalibration of the CNLMs. The NRAT provides a viable alternative controlled activity pathway for most CVG and drives the adoption of practice changes that will achieve low nitrogen leaching risk.

Option 1: Council Reply Provisions	
	Demonstration of the 35% reduction, required by the alternative % reduction pathway, also relies on Overseer but is not the only alternative (the NRAT is available and is a bespoke risk assessment tool for the targeted water management sub-zones).
Driving on-farm practice change:	Professor Horne, Dr Jolly and Dr Snelder, together with Mr Ford and Mr Barber, consider the combination of Table 14.2, NRAT and % reduction provisions will effect farm system improvements that achieve material reductions in nitrogen leaching and modest water quality improvement in the targeted water management sub-zones.

Option 2: Day V3 Provisions	
Achieving the PC2 objectives:	Overcomes the policy obstacle (amendment to Policy 5-8 (a) (ii) requires existing IFLU to 'generally' achieve the Table 14.2 CNLMs and provides for discretionary activity exceptions; restores workable (although less administratively efficient) provisions for pastoral IFLU only (not for CVG IFLU where the use of Overseer is problematic); updates the Table 14.2 CNLMs using the most recent version of Overseer; includes a reference file method for accommodating future Overseer updates that sits outside the One Plan (so may not be workable or lawful); de-emphasises the role of GMPs and additional measures in Policy 14-3; does not specify time frames for lodgement of applications for exceedance or timeframes for implementation of nitrogen leaching reductions; provides for exceedance of the Table 14.2 CNLMs but is not specific about what quantum of reduction or 'trajectory of improvement' will be required where IFLU are granted consent to exceed the Table 14.2 CNLMs; therefore it is not possible to quantify what reduction in SIN load might result (the outcome has not been modelled but will not match the strict implementation of Table 14.2 water quality modelling scenario because the provisions provide for exceptions (the 'Proposed Consented' scenario assumed no discretionary activity pathway).
Giving effect to the RPS:	Provides no certainty of nitrogen leaching outcome for IFLU consents; therefore no confidence that the provisions will make a contribution towards achieving the strategies for surface water and groundwater; specifies more clearly the requirement to consider effects on sensitive downstream water bodies and mana whenua values; specifically references RPS policies 5-2 to 5-6 (in Policy 5-8 and decision-making Policy 14-6 perhaps unnecessarily duplicating the reference).
Efficiency:	Does not optimise administrative efficiency because assigns a fully discretionary decision making process with little certainty of outcome for farmers and growers and for the environment/community; no time constraints are imposed so there is no certainty about when farm practice changes and water quality improvements will be realised; noting the uncertainty and lack of support from farming and grower representatives, there may be resistance to implementation requiring widespread enforcement action which would divert Council resources and be inefficient.
Effectiveness and practicability of implementation:	There is no certainty about the extent of farm practice change required or on farm nitrogen leaching reduction that will be required of discretionary activity exceptions to Table 14.2 (therefore no certainty as to effectiveness of outcome for farmers and growers or for the environment/community); CVG growers and grower representatives do not support Table 14.2 and its reliance on Overseer (it is not seen as practicable, workable or effective for CVG); there is also limited support for Table 14.2 from pastoral IFLU farming representatives and it may be that dairy IFLU have let Overseer subscriptions lapse so these would need to be reactivated; with no certainty of outcome, it is

Option 2: Day V3 Provisions	
	expected there will be resistance from farmers and growers to acting quickly to lodge consents which will impair the effectiveness of this option and will likely to continue to stall the regulation of existing IFLU..
Environmental, economic, social, cultural benefits and costs:	It is not known what impact the implementation of Option 2 will have on in-river SIN loads in the targeted water management sub-zones and downstream receiving environments (there is no minimum required nitrogen leaching reduction for applications to exceed Table 14.2); it is not known what on-farm practice changes will be required or whether these are achievable and financially feasible; it is not known whether consents granted under the Option 2 framework will or will not enable existing IFLU to continue and on what terms; it will provide no certainty for business confidence or for the future of farming families and communities; it is not known whether the consented outcomes will improve or even hold the line on the contribution of existing IFLU to cumulative water degradation (there being no minimum nitrogen leaching requirements for discretionary activity consents); there is no certainty about whether the option will address impacts on cultural values associated with degraded water quality.
Economic growth and employment:	The economic evidence is that all options will have neutral impact at regional scale.
Risk of acting or not acting where information is uncertain or insufficient:	There are significant uncertainties about the outcomes that may result from the requirement for discretionary activities for large numbers of existing IFLU under Option 2; there are risks, associated with these uncertainties, for water quality outcomes, farm business confidence and administrative implementation of Option 2.
S. 30 functions:	Noting the uncertainties of outcome for the environment, farming and communities discussed above, Option 2 performs poorly in giving effect to the Council's s. 30 functions.
Giving effect to the NPS-FM & NZCPS:	Noting the uncertainties of outcome for the environment, farming and communities discussed above, Option 2 performs poorly in giving effect to the NPS-FM and NZCPS.
MfE advice on Overseer outputs as absolute numbers:	Reliance on Table 14.2 as the only controlled activity pathway perpetuates the difficulties of imposing Overseer-derived CNLMs as absolute numbers; although this could be moderated in consents by shifting the focus away from compliance with the nitrogen leaching estimate number towards implementation of on-farm practice changes (however this is not specified in the Day V3 Provisions – the focus is on reserving control over compliance with the CNLM (Rule 14-1 Reserved Matter (b) and Condition (c)).

Option 2: Day V3 Provisions	
Will outputs be certain, consistently applied, verifiable, measurable, accessible for farmers, show relative change over time:	Yes, using Overseer to demonstrate compliance with Table 14.2. However, there is less certainty about the consistency of application of the broad policy considerations to the majority of IFLU that require consent as a discretionary activity.
Potential for legacy consents:	The requirement for leaching risk to comply with Table 14.2, limits the potential for adverse legacy consents from those compliant IFLU; however, the evidence is that 41% to 49% of IFLU will not meet the Year 20 CNLM and further, that 52% - 77% of existing IFLU in the Mangatainoka and Upper Manawātū water management sub-zones will not meet Table 14.2 based on 2019 Overseer information; there is uncertainty about the quantum of nitrogen leaching that would be required from these IFLU if granted consents under the Option 2 policy framework; there is no policy particularly limiting the potential for these discretionary activity consents to become adverse legacy consents; the ten year duration limit the potential impact of legacy consents although does not address consents granted where Table 14.2 which can obtain longer term consents with longer implementation periods; no timeframe for the lodgement of discretionary activity consents so no clarity on when any legacy constraints might commence which impairs the effectiveness of the ten year duration as a limit on legacy consents.
Certainty of outcome:	There is a high degree of certainty for the existing IFLU able to comply with Table 14.2; however, the evidence is that there is a larger pool of IFLU (less than half of the IFLUs are likely to meet their Year 20 CNLM) that will need to pursue discretionary activity consents; there is very little certainty of outcome for these discretionary activity IFLU.
Equity:	The provisions provide an equitable opportunity for existing IFLU to apply for controlled activity consent reliant on Table 14.2. However, most existing IFLU (and a large proportion of CVG IFLU) will not qualify under the Table 14.2 pathway and will require discretionary activity consent. Where IFLU are unable to achieve the reductions required to qualify as controlled activities, requiring a more onerous discretionary activity application process, this is due to environmental effects. There is no clear or consistent guidance in the policy framework signalling the extent of reductions individual IFLU will be required to make to achieve discretionary activity consent. Option 2 is less equitable in this respect. It is not known how the Option 2 reductions required of IFLU that exceed Table 14. compared with the extent of reductions authorised by consents previously.
Information gathering for catchment planning:	IFLU that comply with Table 14.2 will provide some useful information for benchmarking land use and nitrogen leaching assumptions for future catchment modelling (limited to the minority of IFLU and limited to the targeted water management sub-zones). As currently proposed, nitrogen reductions required of IFLU that exceed Table

Option 2: Day V3 Provisions	
	14.2 are to be specified in consent conditions as % reductions. If they are expressed in this way, without a baseline nitrogen leaching number, the information may be of limited value for catchment scale water quality modelling. However, it should be possible to determine the outcome of the reduction as an absolute Overseer output limit, which would provide useful information for validating catchment modelling assumptions (for the targeted water management sub-zones). The information would be helpful, but is not essential.
Underlying biophysical characteristics:	Table 14.2 accounts for underlying biophysical characteristics in a manner that can be consistently applied. The policy framework for IFLU that do not comply with these limits also requires consideration of underlying biophysical characteristics.
Suitable for pastoral and CVG:	Reliance on Overseer in the application of Table 14.2 has acknowledged limitations for CVG that are not addressed by a simple recalibration of the CNLMs. The proposed policy framework indicates that CVG that achieves a minimum 35% reduction in nitrogen leaching will be viewed favourably but this does not overcome the inherent poor fit of Overseer for CVG (demonstration of the 35% reduction relies on Overseer).
Driving on-farm practice change:	The evidence is that reduction of nitrogen leaching, to achieve compliance with Table 14.2, will require on-farm management practice changes. What is unclear is the extent to which the exceedances of Table 14.2, to be considered through discretionary activity applications for consent, will drive on-farm practice changes to reduce nitrogen leaching. There is nothing explicit in the proposed policy framework about the quantum of reduction required for pastoral IFLU(acknowledging that there is a hint that a 35% reduction for CVG will be viewed favourably).

Option 3: DV-PC2 Specified Reduction Pathway	
Achieving the PC2 objectives:	Overcomes the policy obstacle; restores workable provisions (for pastoral and CVG although less workable for CVG because of the difficulties in relevance of Overseer for CVG), provides for future Overseer updates either increasing or decreasing N leaching outputs; updates the Table 14.2 CNLMs using the most recent version of Overseer; provides viable consenting pathways for existing IFLU that exceed the recalibrated CNLMs; requires applications to be lodged within 12 months and practice changes to occur within specified time frames (achieves the PC2 aim of restoring effective regulation as soon as practicable); reinforces the importance of GMPs, BMPs and additional

Option 3: DV-PC2 Specified Reduction Pathway	
	measures to drive N leaching reduction and manage other contaminants; the SIN modelling conclusion is that it will drive modest contribution to reduced SIN loads in rivers.
Giving effect to the RPS:	Provides certainty of nitrogen leaching outcome for IFLU consents; therefore confidence that the provisions will make a contribution towards achieving the strategies for surface water and groundwater; specifies more clearly the requirement to consider effects on sensitive downstream water bodies and mana whenua values and Schedule E water quality targets; specifically references RPS policies 5-2 to 5-7 (in Policy 5-8).
Efficiency:	Optimises administrative efficiency by assigning the least restrictive regulatory intervention (controlled activity) to achieve certainty of land use practice change and water quality improvement; the requirements for lodgement of applications and implementation of GMPs, BMPs and mitigations within specified periods will ensure effectiveness is achieved in as short a time as possible (i.e. efficiently); however the further work to adapt Overseer to applications to green vegetable growing may mean its implementation for CVG is less efficient.
Effectiveness and practicability of implementation:	The % reduction pathway will be practicable for dairy IFLU but not for CVG growers; the % reduction requirements are expected to drive farm practice changes that materially reduce nitrogen leaching and better manage other contaminants; compliance monitoring will focus on actual land use practices and will be readily verified on farm; Overseer subscriptions for dairy IFLU may have lapsed, making it more difficult to generate baseline Overseer budgets for some dairy IFLU using the % reduction pathway; however, for CVG, Overseer is not seen as workable and practicable and there may be resistance to implementation (the Council will need to work with CVG growers and representatives to develop appropriate 'work-arounds' to allow Overseer to be practically applied to green vegetable growing).
Environmental, economic, social, cultural benefits and costs:	Implementation of Option 3 will result in modest reductions in SIN in rivers in the targeted water management sub-zones and downstream receiving environments; will require on-farm practice changes that are achievable and financially feasible and will enable most existing IFLU to continue; will provide certainty about the changes required on farm which will support business confidence and provide certainty of future for farming families and communities; the modest water quality improvements will ensure existing IFLU do not compound degraded water quality (although the modest improvement will not address or redress impacts on cultural values associated with degraded water quality).
Economic growth and employment:	The economic evidence is that all options will have neutral impact at regional scale.

Option 3: DV-PC2 Specified Reduction Pathway	
Risk of acting or not acting where information is uncertain or insufficient:	The work done to date on the range of farm practice changes available and feasibility of these for pastoral and CVG systems, and the water quality (SIN) modelling work mean there is a high degree of certainty about the likely outcomes (on farm, for water quality and for farming communities). The risks associated with uncertainty have been addressed by the technical work.
S. 30 functions:	Noting the expected modest reduction in SIN and the initiatives within the Option 3 provisions to require improved on-farm management of nutrients and sediment, Option 1 will contribute to enabling Horizons to give effect to its s. 30 functions.
Giving effect to the NPS-FM & NZCPS:	Noting the expected modest reduction in SIN and the initiatives within the Option 3 provisions to require improved on-farm management of nutrients and sediment, Option 3 will contribute to giving effect to the NPS-FM and NZCPS; although Option 3 will not itself reverse the acknowledged water degradation, it will reduce the contribution from existing IFLU.
MfE advice on Overseer outputs as absolute numbers:	Retention of Table 14.2 perpetuates the difficulties associated with imposing Overseer outputs as absolute limits; however, Option 3 establishes a framework where Table 14.2 is supported by an alternative that assesses relative change from a baseline, but it wholly relies on Overseer and will not be able to be assessed by reference to an absolute number. It does not provide for a multi evidence approach.
Will outputs be certain, consistently applied, verifiable, measurable, accessible for farmers, show relative change over time:	Yes (and incorporating a requirement for periodic reporting using Overseer allows for monitoring of change in nitrogen leaching over time).
Potential for legacy consents:	The requirement for leaching risk to either comply with Table 14.2, or to achieve a minimum % reduction limits the potential for adverse legacy consents; the proportion of existing IFLU that will need to pursue a discretionary activity consent (where the nitrogen leaching result is less certain) is confined and the risk to the environment associated with these consents is therefore limited; the ten year duration limit also limits the potential impact of legacy consents although not for consents which comply with Table 14.2 which can obtain longer terms and have longer time periods for implementation; and the requirement to lodge applications for consent within 12 months ensures the start date for any potential legacy consents is constrained.

Option 3: DV-PC2 Specified Reduction Pathway	
Certainty of outcome:	The Table 14.2 and specified % reduction requirements for the controlled activity pathways provide a high degree of certainty of nitrogen leaching reduction outcome; the requirements imposed on and nitrogen leaching outcome for the existing IFLU that are unable to comply with these limits and seek discretionary activity consent is less certain (but the proportion of these is smaller than the pool of IFLU likely to be regulated as controlled activities).
Equity:	The provisions provide an equitable opportunity for most existing IFLU to apply for controlled activity consent on a consistent basis that applies the same demands on all of them in terms of nitrogen reductions required. Where IFLU are unable to achieve the reductions required to qualify as controlled activities, requiring a more onerous discretionary activity application process, this is due to environmental effects. The Council Reply Provisions are more onerous in the reductions in nitrogen leaching required compared with the extent of reductions authorised by consents previously.
Information gathering for catchment planning:	IFLU that comply with Table 14.2 will provide some useful information for benchmarking land use and nitrogen leaching assumptions for future catchment modelling (limited to the minority of IFLU and limited to the targeted water management sub-zones). Applications under the alternative % reduction pathway are required to demonstrate the minimum % reduction. This will likely involve Overseer and the information supplied in the application would provide useful information for validating catchment modelling assumptions (for the targeted water management sub-zones). The information would be helpful, but is not essential.
Underlying biophysical characteristics:	Table 14.2 and, to an extent, the % reduction pathways account for underlying biophysical characteristics in a manner that can be consistently applied. The policy framework for IFLU that do not comply with these limits also requires consideration of underlying biophysical characteristics.
Suitable for pastoral and CVG:	Reliance on Overseer in the application of Table 14.2 has acknowledged limitations for all IFLU given the reliance on absolute values, and the issues for CVG are not addressed by a simple recalibration of the CNLMs. Demonstration of the 35% reduction similarly relies on Overseer, although the assessment of relative change from a baseline still more workable than meeting the CNLM in Table 14.2.
Driving on-farm practice change:	The evidence of Professor Horne, Dr Jolly and Dr Snelder is that the % reduction provisions will effect farm system improvements that achieve material reductions in nitrogen leaching and modest water quality improvement in the targeted water management sub-zones.

Option 4: Simple Recalibration of Table 14.2	
Achieving the PC2 objectives:	Does not overcome the policy obstacle; does not restore workable provisions; does not accommodate future Overseer version updates; updates the Table 14.2 CNLMs using the most recent version of Overseer; does not provide workable or viable consenting pathways for existing IFLU that exceed the recalibrated CNLMs; does not impose any urgency or require consent applications to implement practice changes as soon as practicable; places no emphasis on the importance of GMPs or BMPs and additional measures to drive N leaching reduction and manage other contaminants; the SIN modelling conclusion is that it will drive modest contribution to reduced SIN loads in rivers (Option 4 is represented as the 'Proposed Consented' scenario which yields the highest improvements, although still modest and the difference in outcome is of no practical importance compared with the other scenarios modelled).
Giving effect to the RPS:	Provides no certainty of nitrogen leaching outcome for IFLU consents because, without policy amendments, the framework for decision making is unworkable; therefore no confidence that the recalibration will make any contribution towards achieving the strategies for surface water and groundwater; does not specify a requirement to consider effects on sensitive downstream water bodies or mana whenua values or Schedule E water quality targets; specifically references RPS policies 5-2 to 5-7 (in Policy 5-8).
Efficiency:	Is the least efficient option because it does not address the policy roadblock and will not provide a workable consenting frame; strict compliance with Table 14.2 is known to be difficult or unachievable for most CVG and for many dairy IFLU, so there is likely to be resistance to compliance and suggests widespread enforcement action may be necessary to force compliance; there are doubts about the reliability of enforcing the Table 14.2 CNLM as an absolute compliance standard when there are known (and material) uncertainties affecting its predictive accuracy; embarking on enforcement proceedings would be resource hungry and take time with no certainty of outcome.
Effectiveness and practicability of implementation:	Compliance with the Table 14.2 CNLMs is known to be difficult or unachievable for most CVG and for many dairy IFLU; given the absence of any workable avenue for IFLU to pursue exceedances of Table 14.2, this option is not seen as effective at all and will likely to continue to stall the regulation of existing IFLU.
Environmental, economic, social, cultural benefits and costs:	Implementation of Option 4 is not expected to be workable so is expected to achieve only a limited reduction in in-river SIN loads in the targeted water management sub-zones and downstream receiving environments (any improvement would be associated only with those existing IFLU that could comply with Table 14.2 and it is known that many cannot comply); it is not known what on-farm practice changes will be required to achieve compliance or whether these are achievable and financially feasible (the work done to date indicates it will not be achievable or financially feasible on many existing IFLU); it will provide no certainty for business confidence or for the future of

Option 4: Simple Recalibration of Table 14.2	
	farming families and communities; it is not known how many individual IFLU farming enterprises would need to change land use to comply with Table 14.2; if land use change is the inevitable outcome of Option 4, it is not known what impact that would have on the economy and social fabric of the region; the limited water quality improvement that may be achieved from compliance with Table 14.2 that can be achieved by an unknown number of existing IFLU is not expected to address impacts on cultural values associated with degraded water quality; the water quality modelling did not include a scenario of land use change so it is not known what impact land use change for an unknown number and area of existing IFLU would have on water quality.
Economic growth and employment:	The economic evidence is that all options will have neutral impact at regional scale (because, even with land use change, diversion of investment from IFLU to some other land use(s) would have neutral impact at regional scale).
Risk of acting or not acting where information is uncertain or insufficient:	There is a high degree of uncertainty about the outcomes likely from Option 4; the uncertainties provide a poor basis for proceeding with this option.
S. 30 functions:	Noting the unworkability, ineffectiveness and uncertainties of outcome for the environment, farming and communities discussed above, Option 4 performs poorly in giving effect to the Council's s. 30 functions.
Giving effect to the NPS-FM & NZCPS:	Noting the unworkability, ineffectiveness and uncertainties of outcome for the environment, farming and communities discussed above, Option 4 performs poorly in giving effect to the NPS-FM and NZCPS.
MfE advice on Overseer outputs as absolute numbers:	Reliance on Table 14.2 as the only controlled activity pathway, particularly with no workable pathway for exceptions from Table 14.2, perpetuates the difficulties of imposing Overseer-derived CNLMs as absolute numbers.
Will outputs be certain, consistently applied, verifiable, measurable, accessible for farmers, show relative change over time:	Yes, using Overseer to demonstrate compliance with Table 14.2. However, Overseer is less accessible and usable for CVG IFLU.
Potential for legacy consents:	The requirement for leaching risk to comply with Table 14.2 theoretically limits the potential for adverse legacy consents for those compliant IFLU. However, it is not clear what the fate is for the IFLU that exceed Table 14.2 in

Option 4: Simple Recalibration of Table 14.2	
	the absence of any workable consent pathway and whether these will continue as high leaching legacies until enforcement action forces them to cease or change to a different land use.
Certainty of outcome:	There is a high degree of certainty for the existing IFLU able to comply with Table 14.2. There is no certainty of outcome for the IFLU that exceed Table 14.2 (the majority).
Equity:	The provisions provide an equitable opportunity for existing IFLU to apply for controlled activity consent reliant on Table 14.2. However, most existing IFLU (and a large proportion of CVG IFLU) will not qualify under the Table 14.2 pathway and will require discretionary activity consent and the 'policy roadblock' means this is not actually available to them. Option 4 is inequitable in this respect compared with the other three options.
Information gathering for catchment planning:	IFLU that comply with Table 14.2 will provide some useful information for benchmarking land use and nitrogen leaching assumptions for future catchment modelling (limited to the minority of IFLU and limited to the targeted water management sub-zones). Given the uncertain consenting pathway for IFLU that exceed Table 14.2, it is not clear to what extent this process will generate useful information about higher leaching IFLU for future catchment modelling.
Underlying biophysical characteristics:	Table 14.2, the NRAT accounts for underlying biophysical characteristics in a manner that can be consistently applied. The unworkable policy framework for IFLU that do not comply with Table 14.2 means there is no pathway through which biophysical characteristics can be considered for these (the majority of) IFLU.
Suitable for pastoral and CVG:	Reliance on Overseer in the application of Table 14.2 has acknowledged limitations for all IFLU activities, particularly given its reliance on an absolute value, and for CVG these issues are not addressed by a simple recalibration of the CNLMs.
Driving on-farm practice change:	The evidence is that reduction of nitrogen leaching, to achieve compliance with Table 14.2, will require on-farm management practice changes. What is unclear is what the consequences will be for existing IFLU that exceed the Table 14.2 CNLMs (whether they will go to the lengths necessary to comply or will convert their land to other non-intensive uses or sell their land or simply sit tight and await enforcement action while the current land use continues without change. These uncertainties mean that Option 4 will not drive on-farm practice change as effectively as will Options 1 and 3.

Appendix 2

Summary Comparison of Evaluation of Options 1 to 4 (where 'A' indicates performs well; 'B' performs moderately well; 'C' performs less well; and 'D' performs least well)	Option 1 Council Reply	Option 2 Day V3	Option 3 Specified Reduction	Option 4 Table 14.2 Recalibrated
Achieving the PC2 objectives:	A	C	A	D
Giving effect to the RPS:	A	C	A	D
Efficiency:	A	D	B	D
Effectiveness and practicability of implementation:	A	D	B	D
Environmental, economic, social, cultural benefits and costs:	A	C	A	D
Economic growth and employment:	Neutral	Neutral	Neutral	Neutral
Risk of acting or not acting where information is uncertain or insufficient:	A	C	A	D
S. 30 functions:	A	C	A	D
Giving effect to the NPS-FM & NZCPS:	A	C	A	D
MfE advice on Overseer outputs as absolute numbers:	A	D	A	D
Will outputs be certain, consistently applied, verifiable, measurable, accessible for farmers, show relative change over time:	A	B	A	B
Potential for legacy consents:	A	C	A	D
Certainty of outcome:	A	C	A	D

Summary Comparison of Evaluation of Options 1 to 4 (where 'A' indicates performs well; 'B' performs moderately well; 'C' performs less well; and 'D' performs least well)	Option 1 Council Reply	Option 2 Day V3	Option 3 Specified Reduction	Option 4 Table 14.2 Recalibrated
Equity:	A	C	A	D
Information gathering for catchment planning:	C	A	A	C
Underlying biophysical characteristics:	A	A	B	D
Suitable for pastoral and CVG:	A	B	B	D
Driving on-farm practice change:	A	C	A	D

Appendix 3

See attached Excel Spreadsheet

Index of Plan Amendment 3 Changes to Structure and Numbering of One Plan

RPS – LF – Land and Freshwater

LF – LAND – Land

Scope and background

*Land** management issues stem mainly from the *effects** of human activities on *land**. Erosion is a naturally occurring process which can contribute sediment to *water bodies**, but can also be exacerbated by human activities. This chapter focuses on the impacts of human activity and *accelerated erosion*. Potential for adverse environmental *effects** depends upon two factors: the capability of the *land** and soil to support particular uses and the *effects** of a given activity on different *land** and soil types. Mismanagement of the *land** resource has major implications for *water** quality and aquatic biological diversity in terms of sediment and nutrient inputs. These implications stem from the very strong links that exist between the *land** and *water** resources.

Agriculture, particularly pasture-based farming, is the foundation of the Region's economy and is one of the key elements that has defined the Region's social and visual landscape. However, in some areas, past and present agricultural practices have damaged the very resource upon which the agricultural sector is based – the *land** and soil. Future *land** management practices have the potential to increase the rate of damage if they do not take the natural limitations of the *land** into account.

Content

This chapter covers *accelerated erosion**, including the management of *vegetation clearance**, *land disturbance**, *forestry** and *cultivation**

Activities related to *land** management which are covered in other chapters include:

1. *discharges** of *agrichemicals**, *agricultural wastes** and other *contaminants** onto or into *land**, addressed in RPS-LF.
2. activities involving the *beds** of *rivers** and *lakes**, addressed in RPS-LF.
3. clearance of indigenous vegetation and drainage of significant *wetlands**, addressed in RPS-ECO.

Accelerated erosion*

*Accelerated erosion** is often caused by historical and current clearance of *woody vegetation** and earthworks such as tracking, particularly on *land use capability classes** VII and VIII *land**. The Region has approximately 274,000 ha of hill country *land** at risk of moderate-severe erosion (Figure 2), 116,000 ha of which were affected by the storms of 2004. Approximately 200 million tonnes of soil was eroded during the February 2004 storm, causing approximately 30 million tonnes of sediment to enter the Region's *rivers**. The sediment *discharged** by *rivers** in the Region during this single storm event was likely to be several times the average annual sediment *discharge** for the Region.

The Region's western coast, particularly the foredune and associated inland soils, is easily eroded when the protective vegetation cover is removed as part of coastal development, and as a consequence of activities such as *land** recontouring and vehicle movement. *Vegetation clearance** and *land disturbance** expose these fragile soils to wind erosion.

The present extent of erosion has occurred despite the work by catchment boards and other individuals and organisations to manage soil erosion since the 1940s. Where these activities brought about meaningful *land** use change, the results have been successful in decreasing erosion rates. For

instance, in steep hill country, tree cover has reduced erosion rates by approximately 75% when compared with grass. However, the size and scale of the erosion issue is such that to date no agency has been able to deal with all erosion-prone *land**. Further, in some areas, large-scale *land** use changes are likely to be required, to which there is understandable landowner resistance.

*Accelerated erosion** can cause a number of on-site and off-site impacts:

1. to the landowner – loss of soil and productive capability, reduced stock-carrying capacity, impacts on property and assets such as *tracks**, fences and buildings, and the costs of carrying out repairs
2. to the *environment** – reduced *water** quality in terms of nutrient loads (much of the phosphate load in *water** is the result of sediment run-off), reduced *water** clarity, and major impacts on instream life
3. to others in the Region – damage to infrastructure and loss of flood protection to lowland communities as *river* beds** within *river** and drainage schemes fill up with silt.

Soils that are damaged by slipping take a very long time to recover. Studies have shown it can take in the order of 20 years to regain 80% of pre-erosion productivity levels, and more than 100 years to achieve near-full recovery. Some soil types may never fully recover. Efforts to maintain farm productivity on *land** that has been affected by slipping generally increase pressure on less damaged parts of the *property**, thereby increasing the likelihood of further erosion and the loss of nutrients from increased *fertiliser** use.

Disturbed sandy soils can take many years to revegetate and stabilise naturally. In the interim, large quantities of sand can be eroded by the wind, threatening buildings and *property* and causing the inundation of productive *land**.

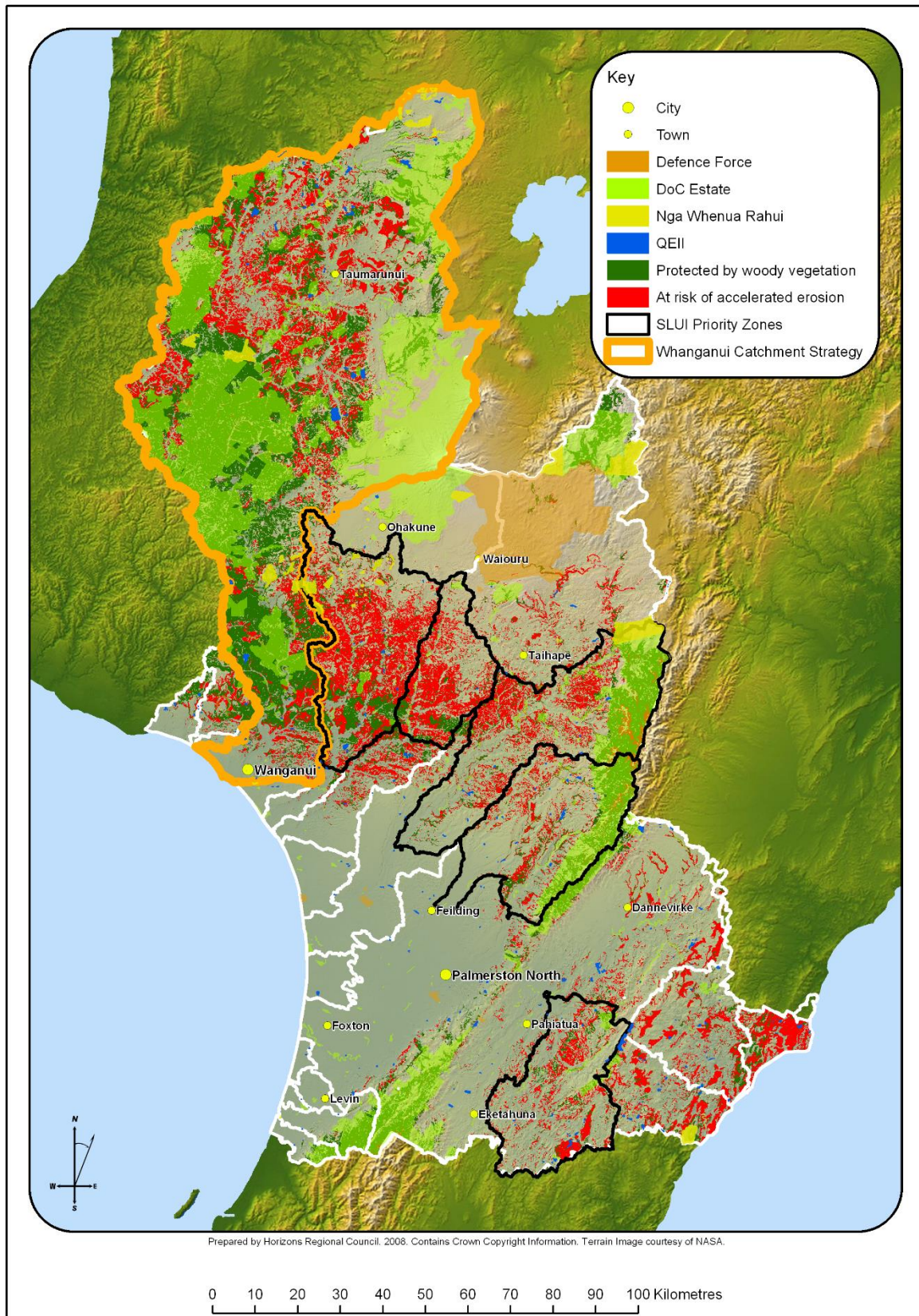


Figure 2 - Distribution of hill country *land subject to an elevated risk of *accelerated erosion****

In addition to the damage that can be caused to the Region's fragile *land** types and soils discussed above, erosion rates and sediment run-off from other parts of the Region can be increased through activities that involve significant *vegetation clearance** and *land disturbance**. Such activities are typically involved with major infrastructure development (for example, *road** construction and *upgrades* or energy projects such as windfarm development), *land** development (such as new *subdivisions** for residential or *industrial activities** on the edge of urban centres or recontouring of *land** associated with dairy conversions or intensification), or aggregate extraction (for example, gravel pits or *quarries**).

Insufficient attention to batter slopes, stormwater management, fill compaction, overburden containment, debris clearance and revegetation can significantly increase sediment loads in adjoining streams or sediment *discharges** onto neighbouring properties.

Land and Soil Management

This section focuses on reducing *accelerated erosion**.

The Regional Council's focus continues to be largely non-regulatory, with the Council's Sustainable Land Use Initiative and Whanganui Catchment Strategy programmes being critical components of this approach.

The Regional Council's regulatory focus for *land** centres on protecting the stability of the Region's soil and maintaining or enhancing *water** quality.

This regulatory focus recognises that under s9(2) of the RMA, the use of *land** can occur as of right unless a rule in a plan states otherwise. Therefore, the Regional Council does not require rules allowing the use of *land** unless it wishes to control the way in which that use of *land** occurs.

Under this Plan, the majority of activities involving the use of *land** can continue to occur as of right provided they are not within a *rare habitat**, *threatened habitat** or *at-risk habitat**. However, four specific activities can only continue to be undertaken without the need for a resource consent if conditions are met. These activities are:

1. Small-scale *land disturbance**, including earthworks,
2. *forestry**
3. *cultivation**, and
4. *vegetation clearance**.

These activities are permitted by Rules RP-LF-LAND-R1, RP-LF-LAND-R2, RP-LF-LAND-R3 in addition to the regulations contained in the NES-PF, RP-LF-LAND-R4 and RP-LF-LAND-R5 respectively.

*Vegetation clearance**, *land disturbance** and *cultivation** require a resource consent if they are undertaken adjacent to *water bodies**, in *Hill Country Erosion Management Sites** or *coastal foredune** areas subject to an elevated risk of *accelerated erosion*. These specific activities are the subject of Rule RP-LF-LAND-R7 and RP-LF-LAND-R8.

Issues

LF-LAND- I1: Accelerated erosion*

1. Farming and other *land** uses in hill country

Some aspects of current farming and other *land** use practices in the Region's hill country and adjacent to *water bodies** are unsustainable. Where *vegetation clearance**, roading, tracking or other types of *land disturbance** (including filling) are carried out in hill country or adjacent to *water bodies**, there is potential to destabilise slopes, causing *accelerated erosion**. *Accelerated erosion** is often causing:

- a. a significant reduction in the productive capability of *land**
- b. increased sediment loads in *water bodies** which are reducing *water** quality, smothering aquatic ecosystems, infilling *rivers**, *lakes** and estuaries, and increasing flood risk to lowland communities
- c. *land** stability hazards, particularly in steep hill country, which threaten people, buildings and infrastructure.

2. **Coastal foredune***

Vegetation and soil disturbance associated with vehicle movement, tracking, coastal protection works and *land** recontouring have the potential to destabilise fragile *coastal foredunes** if not well managed.

3. **Large-scale *land disturbance** including earthworks**

Most other *land** use activities are not of a sufficient scale to have significant regional adverse *effects**. However, large-scale earthworks related to urban expansion and other development can have significant adverse *effects** on *water bodies** if sediment from these earthworks is poorly managed. Large-scale *land disturbance** activities can also destabilise sandy soils in coastal areas which can cause significant adverse *effects** associated with wind-blown sand.

4. **Forestry***

*Forestry** is considered to be a generally beneficial *land** use in the Region's hill country due to its ability to facilitate the long-term stabilisation of *land** subject to an elevated risk of *accelerated erosion**. However, *forestry** needs to be prudently managed, in a manner consistent with industry best practice, to ensure that sustainable *land** use is realised and off-site adverse *effects** are minimised.

5. **Cultivation***

*Cultivation** does not generally cause soil erosion problems within the Region. However, the potential for increased sediment loads to *water bodies** can increase as the slope of the *land** being cultivated increases and when undertaken adjacent to *water bodies**. Therefore *cultivation** should be appropriately managed, including by the use of appropriate industry best practice sediment run-off control measures.

Objectives

LF-LAND-O1: Managing *accelerated erosion**

By the year 2017, 50% of farms within hill country *land** subject to an elevated risk of *accelerated erosion** will have in place, or be in the process of putting in place, farm-wide sustainable *land** management practices to minimise *accelerated erosion** and to provide for the Surface Water[^] Management Values set out in RP-SCHED2 by reducing sediment loads entering *water bodies** as a result of *accelerated erosion**.

LF-LAND-O1: *Te whakahaere horo whenua tere*

Ā te tau 2017 kia 50% o ngā pāmu kei ngā puke teitei ka whai tūponotanga nui ka pāngia pea e te horo whenua tere kua whakarite kē – kei te whakarite rānei – i ētahi tikanga whakauka mō te whakahaere whenua kei te pāmu katoa hei whakaiti i te horo whenua tere, ā, hei taunaki hoki i ngā Uara Whakahaere Wai Mata kua whakatakotoria i roto i te Pukapuka Āpiti 2 mā te whakaiti i te nui o te parakiwai e uru ana ki ngā wai e hua mai ai i te horo whenua tere.

LF-LAND-O2: Regulating potential causes of *accelerated erosion**

*Land** is used in a manner that ensures:

1. *accelerated erosion** and increased sedimentation in *water bodies** (with resultant adverse effects* on people, buildings and *infrastructure^*) caused by *vegetation clearance**, *land disturbance**, *forestry**, or *cultivation** are avoided as far as reasonably practicable, or otherwise remedied or mitigated, and
2. sediment loads entering *water bodies** as a result of *accelerated erosion* are reduced to the extent required to be consistent with the *water** management objectives and policies for *water** quality set out in RPS-LF-LW of this Plan.

LF-LAND-O2: Te whakahaere pitomata e takea mai ai horo whenua tere

Ka whakamahia te whenua kia hua ai:

1. *te horo whenua tere, ā, ka piki haere te parahanga ā-matū i roto i ngā wai (me te hua ko ngā pānga kino ki te tangata, ngā whare, me ngā kaupapa o raro) nā te whakapara tupu, te raweke whenua, te mahi rākau, te mahi māra – i ngā wā e tika ana ka pareā, ka whakapaingia rānei, ka whakamemehatia rānei ēnei, ā,*
2. *ka whakaitingia te nui o te parakiwai e uru ana ki roto i ngā waie takea mai ana i te tere horo o te whenua kia taea ai te hāngai ki ngā whāinga, ki ngā kaupapa here mō te kōunga o te wai kua whakatakotoria ki RPS-LF-LW o tēnei Mahere.*

Policies

LF-LAND-P1: Encouraging and supporting sustainable *land management**

The Regional Council will encourage and support the adoption of sustainable *land** management practices by:

1. working with relevant owners and occupiers of farms within hill country *land** subject to an elevated risk of *accelerated erosion** to prepare voluntary management plans under the Council's Sustainable Land Use Initiative or Whanganui Catchment Strategy, which identify sustainable *land** management practices for each farm and work programmes for implementing any agreed changes,
2. monitoring the implementation of voluntary management plans and sustainable *land** management practices within hill country *land** subject to an elevated risk of *accelerated erosion** and reporting this information on a two-yearly basis, and reviewing the effectiveness of the sustainable *land** management practices, and
3. responding to requests from owners or occupiers of *land** that is not within hill country *land** subject to an elevated risk of *accelerated erosion** to prepare a management plan, provided this does not impede the achievement of (1).

LF-LAND-P2: Regulation of *land use activities**

1. In order to achieve LF-LAND-O2 the Regional Council must regulate *vegetation clearance**, *land disturbance**, *forestry** and *cultivation** through *rules^* in this Plan and decisions on *resource consents^*, so as to minimise the risk of *accelerated erosion*, minimise *discharges** of sediment to *water**, and maintain the benefits of riparian vegetation for *water bodies**.
2. *Territorial Authorities** may regulate, through *rules^* in *district plans^* and decisions on *resource consents^*, the actual or potential effects* of the use, development, or

protection of *land**, in order to achieve LF-LAND-O2. However, *Territorial Authorities** must not have *rules*^ that are contradictory to the *rules*^ in this Plan that control the use of *land**.

3. The Regional Council will generally allow small scale *vegetation clearance**, *land disturbance**, *forestry** and *cultivation** to be undertaken without the need for a *resource consent*^ if *conditions*^ are met. *Vegetation clearance** and *land disturbance** require a *resource consent*^ if they are undertaken adjacent to some *water bodies** (including certain *wetlands**) in *Hill Country Erosion Management Sites** or in *coastal foredune** areas. Any other large scale *land disturbance** will also require a *resource consent*^.

LF-LAND-P3: Supporting codes of practice, standards, guidelines, environmental management plans and providing information on best management practices

The Regional Council must, and *Territorial Authorities** may:

1. support the development of codes of practice, standards, guidelines and other sector-based initiatives targeted at achieving sustainable *land** use,
2. recognise appropriately developed and administered codes of practice, standards, guidelines or environmental management plans targeted at achieving sustainable *land** use, and incorporate them within the regulatory framework where applicable, and
3. make information describing best management practices for reducing erosion and maintaining *water** quality and soil health available to all relevant landowners, occupiers, asset owners, consultants, developers and contractors.

Methods

Managing activities on *land** is a mix of regulatory and non-regulatory approaches. Part II of this Plan contains regional rules relating to the activities described in this chapter.

LF-LAND-M1 Sustainable Land Use Initiative – Hill Country Erosion	
Description	The aim of this method is to reduce hill country <i>accelerated erosion</i> *. While the emphasis will be on hill country, all <i>land</i> * at risk of erosion will be eligible for assistance under this programme. Staff from the Regional Council and other agencies will work with landowners and occupiers to develop voluntary management plans. These plans will provide the blueprint for long-term environmental, economic and social sustainability. Research, publicity, education, information, incentives, joint ventures and <i>land</i> * purchase will be used to encourage the landowner or occupier to manage their <i>land</i> * in a sustainable manner.
Who	Regional Council, central government, <i>Territorial Authorities</i> *, Crown Research Institutes, landowners or occupiers, recognised organisations representing farmers, and farm consultants.
Links to Policy	This method implements —RPS-LF-LAND-P1.
Targets	50% of properties within hill country <i>land</i> * subject to an elevated risk of <i>accelerated erosion</i> * will have a voluntary management plan in place by 2017.

LF-LAND-M2 Whanganui Catchment Strategy	
Description	The aim of this method is to reduce hill country <i>accelerated erosion</i> * within the Whanganui catchment. Whilst the emphasis will be on hill country <i>land</i> * subject to an elevated risk of <i>accelerated erosion</i> *, all <i>land</i> * at risk of erosion within the

LF-LAND-M2 Whanganui Catchment Strategy	
	catchment will be eligible for assistance under this programme. Staff from the Regional Council and consultants will work with landowners and occupiers to develop management plans. These plans will provide the blueprint for long-term environmental, economic and social sustainability. Research, publicity, education, information and incentives will be used to encourage the landowner or occupier to manage their <i>land*</i> in a sustainable manner. The Whanganui Catchment method is a pilot for the much larger Sustainable Land Use Initiative – Hill Country Erosion method (LF-LAND-M1). Eventually, the Whanganui Catchment Strategy method will be integrated with this method.
Who	Regional Council, Ruapehu and Whanganui District Councils, landowners or occupiers, relevant <i>hapū*</i> and <i>iwi*</i> , the Whanganui River Enhancement Trust, Department of Conservation, recognised organisations representing farmers and farm consultants.
Links to Policy	This method implements RPS-LF-LAND-P1.
Targets	50% of properties within hill country <i>land*</i> subject to an elevated risk of <i>accelerated erosion*</i> in the Whanganui Catchment will have a voluntary management plan in place by 2015.

LF-LAND-M3 Soil Health	
Description	The aim of this method is to reduce the impact of horticulture, cropping and intensive farming activities on soil health, and the consequent off-site environmental impacts. Education on best management practices will be made available to landowners through a variety of means to encourage the adoption of sustainable <i>land*</i> use practices. Research and monitoring will be used to identify and fine-tune best practice. This method includes the provision of advice and information to owners of <i>land*</i> in the fragile sand country along the Region's west coast.
Who	Regional Council, landowners or occupiers, Landwise, Horticulture New Zealand, Federated Farmers, agricultural contractors, <i>fertiliser*</i> companies and research institutes.
Links to Policy	This method implements RPS-LF-LAND-P3(3).
Targets	• All major croppers/horticulturists in the Region are operating under best management practice regimes by 2017. • All major agricultural contractors are operating under industry standards regimes by 2010. • All pasture-based farms are being managed in accordance with the relevant sector-based best management practice by the agreed target dates.

LF-LAND-M4 Sustainable <i>Land*</i> Use Codes of Practice and Best Management Practices	
Description	This method will provide support for the development of codes of practice, best management practices and other sector-based initiatives for sustainable <i>land*</i> use, construction, production and operating methods on all types of <i>land*</i> within the Region – hill country, plains, sand country and along the coast. This method will also recognise, and where appropriate support, initiatives that raise awareness of sustainable <i>land*</i> use. Examples include the monitor farm programme, sustainable farming and management funds, and Ballance Farm Environment Awards.
Who	Participation in this project is very much dependent upon approaches from industry and sector groups.

Links to Policy	This method implements RPS-LF-LAND-P3.
Targets	- All approaches for Regional Council assistance will be considered. - Where proposals are aligned with Regional Council objectives, assistance will be provided where possible.

LF-LAND-M5	Land* Research, Monitoring and Reporting Programme
Description	The aim of this method is to develop an integrated research, monitoring and reporting programme that supports delivery and refinement of existing policies and methods, guides implementation planning, and allows implementation effectiveness to be assessed. This will include a five-yearly assessment of the effectiveness of the above methods, particularly the Sustainable Land Use Initiative – Hill Country Erosion Method.
Who	Regional Council, landowners and occupiers, research institutes, universities, and non-government agencies and community groups.
Links to Policy	This method implements RPS-LF-LAND-P1, RPS-LF-LAND-P2 and RPS-LF-LAND-P3.
Target	A research, monitoring and reporting programme that supports delivery and refinement of existing policies and methods, and guides and assesses implementation.

LF-LAND-M6	Infrastructure Protection
Description	The aim of this method is to reduce the erosion risk to, and caused by, the provision, <i>maintenance*</i> or <i>upgrade*</i> of infrastructure. Advice and information will be provided to infrastructure owners in the planning stages of new works, the carrying out of <i>maintenance*</i> or <i>upgrade*</i>, and protection of existing networks from erosion risks.
Who	Regional Council, <i>Territorial Authorities*</i> and owners of major infrastructure.
Links to Policy	This method implements RPS-LF-LAND-P3.
Target	The Regional Council will have formed working partnerships with all major infrastructure owners for the purposes of assessing and identifying options to manage erosion risks.

LF-LAND-M7	Education in Schools – Land*
Description	The aim of this method is to implement a range of initiatives to raise awareness amongst the youth of the Region of the significance of the <i>land*</i> and soil resource, the threats to it, and what they can do to protect/restore it. This will be achieved through various environmental education programmes/initiatives eg., Green RIG, Trees for Survival etc.
Who	Regional Council, national and local environmental education providers and youth organisations.
Links to Policy	This method implements RPS-LF-LAND-P-3.
Targets	The Regional Council will develop and implement a <i>land*</i> and soil related environmental education programme.

Principal reasons

LF-LAND-PR1

Objectives for *land** management are presented in this Plan to encourage sustainable *land** use and minimise erosion. These focus on responding to the fact that 65% of the Region consists of gullies and hillsides subject to *accelerated erosion**. A target has been introduced into Objective RPS-LF-LAND-O1 to ensure that the progress toward sustainable hill country *land** use can be measured. This is particularly important because the policy platform that underpins this objective is largely non-regulatory.

RPS-LF-LAND-P1 recognises that regulation is not the appropriate tool to encourage change toward sustainable *land** management practices. Instead it uses non-regulatory farm plans that contain a programme of works involving the landowner's active participation. RPS-LF-LAND-P1 and associated methods acknowledge that the achievement of sustainable farming practices on hill country *land** subject to an elevated risk of *accelerated erosion** is a complex task. There are three reasons for this.

1. Recognition that sustainable *land** use means changing from unsustainable farming practices. This may mean the introduction of new practices such as employing different stocking rates, introducing *forestry** or retirement of *land** and fencing *water bodies**.
2. Commitment to implementing new *land** management practices will require capital outlay and most importantly require a willingness from the landowner to introduce change.
3. Sustainable *land** management practices need to be tailored to the specific *land** capability of an individual holding, which means a blanket approach introducing one solution for all hill country farming will probably fail.

RPS-LF-LAND-P2 recognises that *vegetation clearance** and *land disturbance** are two of the main contributors to *accelerated erosion**. It also recognises that *vegetation clearance**, *land disturbance** and *cultivation** within or close to *water bodies** have a high risk of causing *discharges** of sediment to *water**. The policy describes the regulation of *land** use activities to provide guidance to regional and district plan preparation.

RPS-LF-LAND-P3 states the Regional Council's support for codes of practice, standards, guidelines and environmental management plans as these can assist with reducing *accelerated erosion**.

Anticipated environmental results

Anticipated Environmental Result	Link to Policy	Indicator	Data Source
LF-LAND-AER1 By 2017, there will be a net reduction in the adverse <i>effects*</i> on <i>water*</i> quality, people, buildings and infrastructure caused by <i>accelerated erosion*</i> , and hill country and <i>coastal foredune*</i> wind erosion in the Region.	RPS-LF-LAND-P1, RPS-LF-LAND-P2, RPS-LF-LAND-P3, RPS-LF-FW-P4, RPS-LF-FW-P5, RPS-LF-FW-P6, RPS-LF-FW-P7 and RPS-LF-FW-P11	• Water quality monitoring results, especially for "muddy waterways" in the Whanganui and Rangitīkei Rivers • Rate of deposition of sediment in coastal <i>river*</i> reaches, focusing on the Whanganui, Rangitīkei and Manawātū Rivers • Costs of storm damage • % of Region's <i>land*</i> being used in accordance with sustainable use guidelines	• Regional Council's state of environment <i>water*</i> quality monitoring programme • Regional Council's and <i>Territorial Authorities*</i> incidents databases • Regional Council's <i>river*</i> <i>bed*</i> level survey results • Regional Council's and <i>Territorial Authorities*</i> storm damage reports • <i>Land</i> use mapping • Regional Council's Sustainable Land Use

Anticipated Environmental Result	Link to Policy	Indicator	Data Source
Advice Note: There are linkages from this AER to the RPS-LF-FW AERs.		• Level of achievement of deposited sediment, visual clarity and phosphorus <i>water quality targets*</i> specified in RP-SCHED5. • Changes to long-term mean sediment <i>discharges*</i> of <i>rivers*</i> to sea. • % of farms within the SLUI priority catchments that have voluntary management plans in place and are being implemented.	Initiative monitoring and implementation reports

LF – FW – Freshwater

Scope and background

Scope

This chapter addresses the management of *fresh water** in the Region. It covers:

- **Water Management Areas* and Sub-areas* and Values** - the establishment of *Water Management areas** and *Sub-areas** and associated *water** management Values for each *Sub-area**, for the purpose of managing *water** quality, *water** quantity and activities in the *beds** of *rivers** and *lakes**.
- **Surface *water** quality** - the establishment of *water quality targets** for *rivers** and *lakes**, in order to give effect to the Values, together with a policy regime of maintaining *water** quality in those *Water Management Sub-areas** that meet their *water quality targets**, and improving *water** quality over time in those *Water Management Sub-areas** that do not.
- **Groundwater quality** - the *maintenance* of existing groundwater quality and its improvement where it is degraded.
- **Discharges* and land* use activities affecting *water** quality** - the management of *discharges** into surface *water**, *discharges** onto or into *land**, and diffuse run-off and other *land** use activities affecting surface *water** and groundwater quality.
- **Surface *water** quantity and allocation** - the establishment of minimum flows and allocation regimes for *rivers**, and the management of *water** takes and other activities affecting surface *water** quantity.
- **Groundwater quantity and allocation, and bores*** - the establishment of *Groundwater Management Areas**, identification of the respective allocable volumes and the active management of groundwater takes.
- **Beds* of rivers* and lakes*** - the management of activities that disturb the *beds** of *rivers** and *lakes**, the management of existing and new *structures** in the *beds** of *rivers** and *lakes**, and the establishment of sustainable gravel extraction limits for *rivers**.
- **Land* adjacent to the beds* of rivers* and lakes*** - the management of some activities in relation to flood control or drainage purposes.

The *effects** of hill country erosion on *water** quality are addressed in RPS-LF. The ecological impacts of takes, diversions, *discharges** and drainage on *rare habitats**, *threatened habitats** and *at-risk habitats** are addressed in Chapter RPS-ECO.

Overview

*Water** is critical for life to exist. People living in the Region enjoy a temperate climate, a large number of *rivers**, streams and *lakes** and an extensive groundwater system. The Region does not experience the severity of droughts that impact on some other parts of New Zealand and generally there is enough *water** to meet everyone's needs. People have grown up with an expectation of access to clean, safe *water**. But ready access means that *water** has not always been valued highly. The health of the surface *water** resource has steadily declined in most catchments as a result.

Despite this decline, there has been a revolution around *water** in the past few decades. In response to public concerns, significant improvements have been made to the quality of *discharges** from towns

and *sites** where *industrial activities** occur. For example, untreated *sewage** is no longer *discharged** directly into *water bodies**, and *rivers** no longer receive blood *discharged** from freezing works. Many former *discharges** to *water**, particularly *discharges** of dairy shed effluent, are now *discharged** to *land**. New large *water** takes, such as those associated with hydroelectric development, are carefully managed to ensure that the downstream needs of people and ecosystems are catered for. Although there have been substantial improvements in the quality of point source *discharges** to *water**, improvement is still possible and is necessary.

There has been a substantial intensification within the agricultural sector in recent years. This has contributed to a vibrant and booming regional economy but has also increased pressure on the Region's *water** resources. There has been a significant increase in irrigation demand and the amount of nutrients leaching to surface *water** and groundwater. Although the impacts of agricultural intensification are less obvious than those caused by the major point source *discharges** and abstractions mentioned above, they have increased progressively over time.

As the Region has grown, we have significantly altered the physical nature of many of its *water bodies** and their *beds** with *structures**, drainage and flood protection works, particularly in the Manawatū Plains. These changes have led to a poor and declining state of physical health in the Region's *water bodies** and their *beds**.

The impact of *discharges** and run-off on *water** quality and the increasing demand for *water** abstraction are two of the four most critical issues addressed in this Plan.

Water* quantity

The demand on surface *water** and groundwater resources is one of the most critical issues addressed in this Plan.

*Water** from the two main *fresh water** sources within the Region - surface *water** (*rivers** and *lakes**) and groundwater - is abstracted for a variety of uses, including *drinking water** supply, stock *water** supply, irrigation, electricity generation and *industrial activity** use.

The single largest user of *water** in the Region is the energy sector. Hydroelectric power generation takes are concentrated around Mount Ruapehu and on the Mangahao River. The amount of *water** used for power generation has not changed significantly in the past decade, although there is potential for more hydroelectricity generation in the future.

In contrast, with the exception of consented *water** supply abstraction from surface *water**, other uses have steadily increased over the past few decades in response to stock numbers increasing and the establishment of plants for *industrial activities**. In recent years there has been a dramatic increase in *water** demand. From 1997 to 2009, consented groundwater takes almost doubled and consented surface *water** takes more than doubled (Table 6).

Table 6 Change in Consented *Water** Abstraction Volumes from 1997 to 2009 (excluding hydroelectric power generation)

		1997 to 2009 Percentage Change in Consented <i>Water</i> * Takes		
Source	Sector	1997 (m³/d)	2009 (m³/d)	Increase (%)
Groundwater	All Sectors	287,000	537,179	+85%

		1997 to 2009 Percentage Change in Consented <i>Water</i> * Takes		
Source	Sector	1997 (m³/d)	2009 (m³/d)	Increase (%)
Surface <i>water</i> *	Agriculture	70,668	385,579	+446%
	Industry	38,835	97,782	+152%

1997 to 2009 Percentage Change in Consented <i>Water*</i> Takes				
Source	Sector	1997 (m ³ /d)	2009 (m ³ /d)	Increase (%)
	<i>Water*</i> supply	162,024	133,259	-18%
	All Sectors	271,527	616,620	+127%

The greater the amount of *water** taken from a *water body**, the greater the potential impact on instream life, recreational activities (including fishing, swimming and boating), cultural/spiritual values and the ability of the *water body** and its *bed** to assimilate *waste**. As important as the volume of *water** abstracted is the timing of abstraction. *Rivers** in the Region experience natural low flows during summer, which coincides with the period of greatest demand. The taking of *water** during higher flows generally has little impact, but even small takes during summer low flow conditions can have adverse *effects**. Measures which avoid those *effects** during the more critical summer low flow conditions should be encouraged. Maintaining natural flow variability is important for the habitat requirements of fish species, natural character and *water** quality. The ever-increasing demand on the Region's surface *water** resource means that it must be used efficiently, so that the amount of *water** allocated for abstraction is available to as many users as possible.

Groundwater monitoring indicates that groundwater levels are stable and research indicates that there is sufficient *water** for all users at a regional scale. A recent increase in large groundwater takes along the west coast has raised the potential for saltwater intrusion. This occurs when enough *water** is removed from an aquifer to allow seawater to migrate inland. Groundwater contaminated with saltwater is no longer suitable for irrigation or as stock *water**. Saltwater- contaminated groundwater will clear with time, but the timescale is measured in centuries.

The high density of *bores** in some areas has caused localised problems. These include:

1. impacts on other groundwater users. Allowing too many new users to access the groundwater resource will impact on the amount that is available to existing users and can affect the ability of existing *bores** to draw *water**.
2. impacts on groundwater-fed streams, *lakes** and *wetlands**. Many of the streams, *lakes** and *wetlands** along the west coast of the Region (eg., Lakes Papaitonga and Horowhenua) are dependent upon groundwater. Groundwater is particularly important during summer, as it may be the only source of inflow.

*Bores** are the main means of accessing groundwater resources. They provide the principal way of studying the subsurface *environment* by enabling sampling of subsurface geology, allowing direct measurement of groundwater levels and quality and allowing testing of aquifer yields. This Plan adopts the NZS 4411:2001 Environmental Standard for Drilling of Soil and Rock in its entirety for the management of *bores** (design, drilling, completion, development, testing, *maintenance**, cleaning/disinfection, record keeping and decommissioning).

Water quality

There is significant variation in *water** quality across the Region. *Rivers** (including streams) emerging from the mountains or areas that have retained their original vegetation cover tend to have very good *water** quality. The one exception to this is the Whangaehu River, which flows from the crater *lake* on Mt Ruapehu. It is naturally acidic and contains high levels of sulphur and heavy metals.

As *rivers** flow towards the sea, they pick up sediment and nutrients from the surrounding *land**. As would be expected, *water** quality in the lower reaches of *rivers** and streams is poorer than in the headwaters.

In the past, the biggest threats to *water** quality were municipal (eg., *sewage**), *industrial activity** (eg., meat works and fellmongers) and agricultural (eg., dairy shed effluent) *discharges**. Although considerable improvements have been made to *discharges** to *water**, further improvement is still possible and necessary.

The intensification in agriculture during the past 10 to 15 years has been especially marked in the dairy sector. Raising stock numbers increases the quantity of dairy shed effluent requiring disposal, the quantity of stock urine produced (a concentrated source of nutrients), and the opportunities for stock to access *water bodies** and their *beds**. The agricultural sector is recognising the impact it is having on the nation's *water bodies** and has started to act. The dairy sector was the first to respond, with the Dairying and Clean Streams Accord (an agreement between Fonterra, the Ministry for the Environment, Regional Councils and others on an approach to enhance *water** quality). Such voluntary approaches are one way of lowering nutrient and faecal levels in the Region's *water bodies** and the Regional Council supports them, although further improvements are needed. Further improvements will require a mix of regulatory and non-regulatory approaches that may alter over time.

Groundwater quality within the Region varies according to both depth and location. Generally, deeper groundwater is of higher quality. For example, shallow groundwater within the Horowhenua District near Levin has high concentrations of nitrates, which are believed to be the result of septic tank *discharges** and *fertiliser** use on market gardens. There have been no significant changes in groundwater quality over the length of the Regional Council's monitoring record (more than 15 years). There is no evidence that groundwater quality is deteriorating.

The overall state of *fresh water** quality in the Region is as follows:

1. The middle reaches of many *rivers** are unsafe to swim in because of bacterial contamination, or are unpleasant to swim in because of slime (periphyton) growth (Figure 3). Elevated nitrate and phosphate levels promote slime growth. The slime also impacts on fish and instream invertebrate communities.
2. The lower reaches of many *rivers** have high concentrations of bacteria, nitrates, phosphates and sediments, and these levels are increasing.
3. There is minimal contamination of surface *water** from heavy metals, hydrocarbons and other toxic substances.
4. The quality of groundwater in the Region is generally suitable for stock needs and irrigation, with a low sodium hazard and a low-medium salinity hazard.
5. Nitrate levels are high in shallow groundwater in parts of the Region, but the levels have not changed during the period of monitoring.
6. Groundwater is free of herbicides and pesticides.

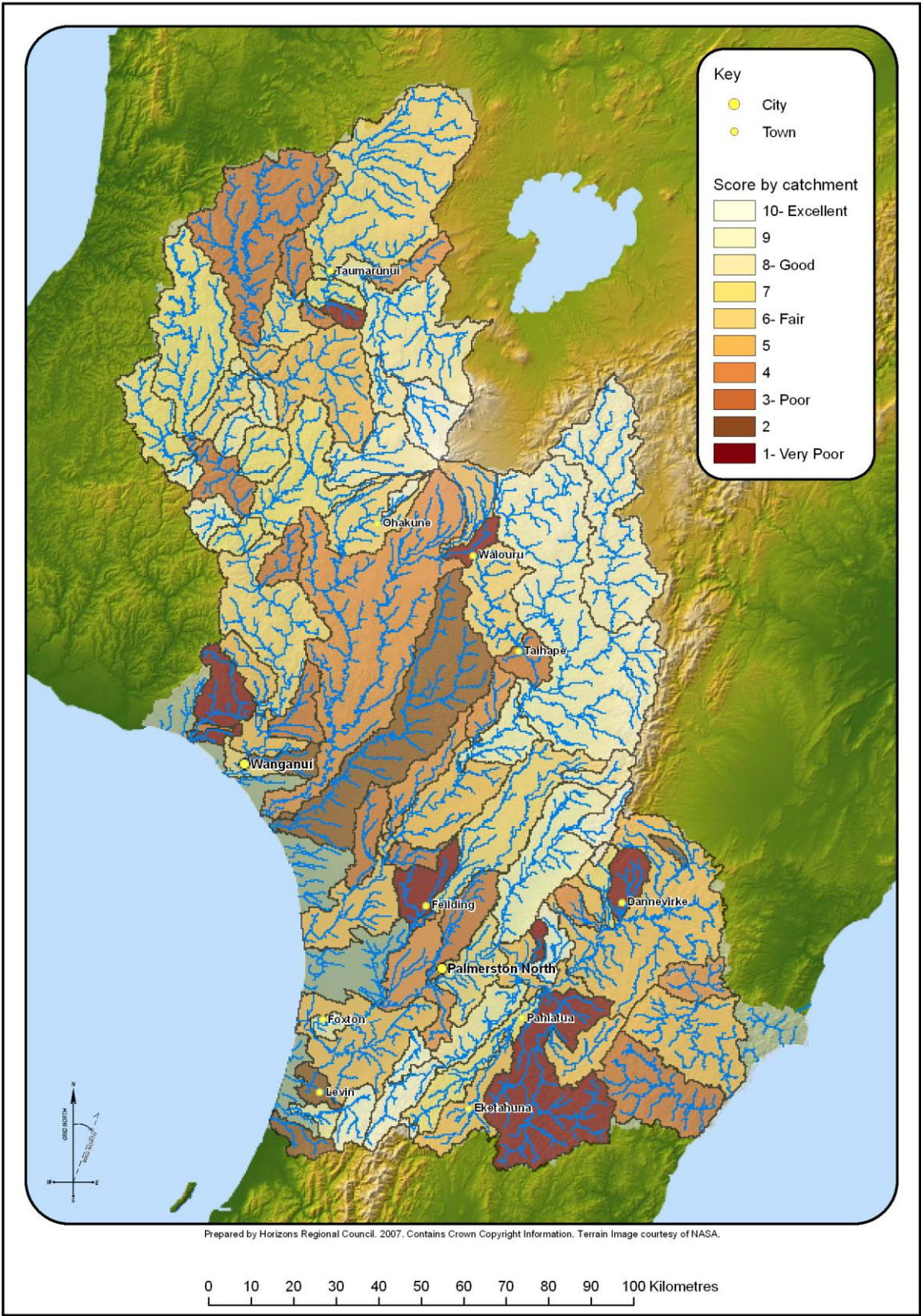


Figure - 3 Suitability of water* quality for contact recreation within the Region

Beds* of rivers* and lakes*

People have always been attracted to *rivers** and *lakes** to live, work and play. Despite the economic, cultural, social and environmental importance of *rivers** and *lakes**, many of the *rivers** and *lakes** in the Region have been highly modified over the years. Works to control flooding and erosion, dams, and diversions for hydroelectricity generation can be large scale and have significant *effects** on the physical nature of the Region's *rivers** and *lakes**. Smaller-scale changes like *river** crossings and small dams can have negative cumulative impacts. Urban expansion often alters *rivers**. Utilisation of the Region's gravel resource provides an economic benefit and there may be flood protection benefits from having it removed from *rivers**. However, gravel extraction, when not managed well, can lead to increased flooding and erosion risk.

This modification has contributed to the economic growth and wellbeing of the Region, but it has also negatively altered the character and ecology of most *rivers** and *lakes** in the Region, impacting on cultural values attributed to them and leading to the loss or fragmentation of indigenous plant and animal populations.

Issues

LF-FW-I2: *Water quality**

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. The principal causes of this degradation are:

1. nutrient enrichment caused by run-off and leaching from agricultural *land**, *discharges** of treated *wastewater**, and septic tanks
2. high turbidity and sediment loads caused by *land** erosion, *river** channel erosion, run-off from agricultural *land** and *discharges** of stormwater
3. pathogens from agricultural run-off, urban run-off, *discharges** of *sewage**, direct stock access to *water bodies** and their *beds** and *discharges** of *waste** from agricultural and *industrial activities**.

Shallow groundwater in areas of intensive *land** use in the Horowhenua and Tararua Districts has elevated nitrate levels in excess of the New Zealand drinking water standard. However, the quality of groundwater in the Region is generally suitable for stock needs and irrigation, and there has been no evidence of deteriorating groundwater quality during the past 15 years.

LF-FW-I3: *Water quantity and allocation**

The use of both surface *water** and groundwater has increased dramatically during the last decade. The demand for surface *water** in the Ōhau, Ōroua and parts of the upper Manawatū catchments already exceeds supply, and other catchments are experiencing marked increases. This increased demand has the potential to adversely affect both instream values and the natural character of *rivers**, *wetlands** and *lakes**, if not managed. The amount of groundwater is generally capable of meeting demand within the Region, although there is a need to actively manage *effects** between *bores** at a local level, the *effects** of groundwater takes on surface *water**, and to be vigilant about the risk of saltwater intrusion along the west coast.

LF-FW-I4: *Beds of *rivers** and *lakes****

The demand for flood and erosion control to protect many types of *land** use has led to significant modification of the Region's *rivers** and *lakes** and their margins. *Structures** required to be located within the *beds** of *rivers** and *lakes**, including bridges, culverts, *water** intake and *discharge** pipes and hydroelectricity *structures**, also affect the natural character of *rivers** and *lakes** and their margins. These types of uses and developments, in conjunction with gravel extraction, have modified, and continue to modify the physical characteristics and ecology of many of the Region's *rivers** and *lakes**.

Objectives

LF-FW-O3: *Water** management Values

Surface *water bodies*[^] and their *beds*^{*} are managed in a manner which safe guards their life supporting capacity and recognises and provides for the Values in RP-SCHED2.

LF-FW-O3: He ūara whakahaere wai

Ka āta whakahaeretia ngā mata wai me ngā papa o ērā kia whakamaru ai i te āheinga toko ora o ērā, ā, ka mōhioia, ka pukumaharatia hoki ngā Uara kei roto i Pukapuka Āpiti 2.

LF-FW-O4: *Water** quality

1. Surface *water*^{*} quality is managed to ensure that:
 - a. *Water*^{*} quality is maintained in those *rivers*^{*} and *lakes*^{*} where the existing *water*^{*} quality is at a level sufficient to support the Values in RP-SCHED2
 - b. *Water*^{*} quality is enhanced in those *rivers*^{*} and *lakes*^{*} where the existing *water*^{*} quality is not at a level sufficient to support the Values in RP-SCHED2
 - c. accelerated eutrophication and sedimentation of *lakes*^{*} in the Region is prevented or minimised
 - d. the special values of *rivers*^{*} protected by *water conservation orders*[^] are maintained.
2. Groundwater quality is managed to ensure that existing groundwater quality is maintained or where it is degraded/over allocated as a result of human activity, groundwater quality is enhanced.

LF-FW-O4: *Te kounga o te wai*

1. *Ka whakahaeretia te kounga o te mata wai kia hua ai:*
 - a. *ka tiakina te kounga o te wai kei roto i ngā awa me ngā roto he kaha tonu te kounga o te wai hei hāpai i ngā Uara kei roto i Pukapuka Āpiti 2*
 - b. *ka whakapaingia te kounga o te wai kei roto i ngā awa me ngā roto kāore i te kaha te kounga o te wai hei hāpai i ngā Uara kei roto i Pukapuka Āpiti 2*
 - c. *ka āraia, ka whakaitingia rānei te tere parahanga ā-matū whakamōmona, te parakiwai hoki o ngā roto o te Rohe, ā,*
 - d. *ka tiakina ngā uara motuhake o ngā awa e whakamarumarutia e ngā whakahau whakauka wai, arā, ko ngā water conservation orders.*
2. *Ka whakahaeretia te kounga o te waiopapa kia hua ai ka tiakina tonutia te kounga o te waiopapa kei reira kē; ka whakarākaitia rānei te kounga o te waiopapa, ka whakaparungia rānei, ka tuhenetia te tuaritanga rānei nā te mahi a te tangata.*

LF-FW-O5: *Water** quantity and allocation

Water^{*} quantity is managed to enable people, industry and agriculture to take and use *water*^{*} to meet their reasonable needs while ensuring that:

1. For surface *water*^{*}:
 - a. minimum flows and allocation regimes are set for the purpose of maintaining or enhancing (where degraded) the existing life-supporting capacity of *rivers*^{*} and their *beds*^{*} and providing for the other Values in RP-SCHED2 as appropriate

- b. takes and flow regimes for existing hydroelectricity are provided for before setting minimum flow and allocation regimes for other uses
- c. in times of *water** shortage, takes are restricted to those that are essential to the health or safety of people and communities, or drinking *water** for animals, and other takes are ceased
- d. the amount of *water** taken from *lakes** does not compromise their existing life-supporting capacity
- e. the requirements of *water conservation orders*[^] are upheld
- f. the in-stream geomorphological components of natural character are provided for.

For the avoidance of doubt this list is not hierarchical.

2. For groundwater:

- a. takes do not cause a significant adverse *effect** on the long-term groundwater yield
- b. groundwater takes that are hydrologically connected to *rivers**, are managed within the minimum flow and allocation regimes established for *rivers**
- c. groundwater takes that are hydrologically connected to *lakes** or *wetlands** are managed to protect the life-supporting capacity of the *lakes** or *wetlands**
- d. the significant adverse *effects** of a groundwater take on other groundwater and surface *water** takes are avoided
- e. saltwater intrusion into coastal aquifers, induced by groundwater takes, is avoided.

3. In all cases, *water** is used efficiently.

LF-FW-O5: *Te nui o te wai me tōna tūaritanga*

Ka whakahaeretia te wai kia āhei ai te tangata, ngā ahumahi, me te hunga ahuhenua te tango me te whakamahi i te wai hei whakatutuki i ō rātou hiahia, kia hua ai hoki:

1. *Mō te mata wai:*

- a. *ka whakatauria ngā rerenga iti me ngā tikanga whakahaere tuaritanga hei tiaki rānei, hei whakarākai ake rānei i te oranga tonutanga o ngā awa me ngā papa o ērā (mehemea kua paru) hei taunaki hoki i ngā Uara e tika ana kei roto i Pukapuka Āpiti 2*
- b. *ko ngā tikanga tango, tikanga rere hoki mō te hikowai kua pukumaharatia i mua i te whakatau i ngā rerenga iti me ngā tikanga whakahaere tuaritanga mō whakamahinga kē atu anō*
- c. *i ngā wā kōpaka wai, ka whakatikina te tango wai hāunga rā hei tiaki i te hauora, te haumaruru rānei o te tangata, ngā hāpori, hei wai inu mō ētahi kararehe rānei, ā, ka katia rawatia te tango mō take kē atu*
- d. *e kore e waimeha te oranga tonutanga mā te tango wai i ngā roto*
- e. *ka hāpaitia ngā whakaritenga o ngā tauākī whakauka wai me ngā pānui ā-takiwā mō te whakauka wai, arā, ko ngā Water Conservation Orders*
- f. *ko ngā wāhanga tinipapa roto-wai o te āhua māori ka pukumaharatia. Hei papare i te rangirua, ehara tēnei i te rārangi aroākapa.*

2. *Mō te waiopapa:*

- a. *e kore te tango wai e pā kaha atu ki te huanga roa o te waiopapa*
- b. *ka whakahaeretia te tango waiopapa e pā ana ki ngā awa i runga i ngā tikanga whakahaere rerenga wai iti, tūaritanga hoki kua whakaritea*
- c. *ka whakahaeretia te tango waiopapa e pā ana ki ngā roto, ngā papa waiwai rānei hei whakamarumaru i te oranga tonutanga o ngā roto, ngā papa waiwai rānei*

- d. *ka parea ngā pānga kino o te tango waiopapa ki te mahi tango i waiopapa kē, tango mata wai rānei*
 - e. *ka parea te urunga o te waitai, nā te tango waiopapa, ki roto i ngā kahupapa takutai moana, ā.*
3. *I ngā wā katoa ka whakamahia te wai i runga i te tikanga whakamau.*

LF-FW-O6: Beds* of rivers* and lakes*

The *beds** of *rivers** and *lakes** will be managed in a manner which:

1. sustains their life supporting capacity
2. provides for the instream morphological components of natural character
3. recognises and provides for the RP-SCHED2 Values
4. provides for *infrastructure*[^] and flood mitigation purposes.

The *land** adjacent to the *bed** of reaches with a RP-SCHED2 Value of Flood Control and Drainage will be managed in a manner which provides for flood mitigation purposes.

LF-FW-O6: Ngā papa awa me ngā papa roto

Ka whakahaeretia ngā papa awa me ngā papa roto ka:

1. *whakauka tonu i te oranga tonutanga o ērā*
2. *pukumahara mō ngā wāhanga tinipapa roto-wai ka whai āhuatanga māori*
3. *āhukahuka, ka pukumahara hoki mō ngā Ūaratanga o Pukapuka Āpiti 2*
4. *pukumahara mō te kaupapa kei raro me ngā koronga whakamāmā waipuke.*

Ko te whenua ka āpiti atu ki te papa o ngā toronga me te Ūaratanga Whakahaere Waipuke, Rerenga hoki o te Pukapuka Āpiti 2 ka whakahaeretia kia pukumahara ai mō ngā koronga whakamāmā waipuke.

Policies

Water* Management Framework

LF-FW-P4: Water Management Areas* and Values

For the purposes of managing *water** quality, *water** quantity, and activities in the *beds** of *rivers** and *lakes**, the catchments in the Region have been divided into *Water Management Areas** and *Water Management Sub-Areas** in RP-SCHED1. Groundwater has been divided into *Groundwater Management Areas** in RP-SCHED4.

The *rivers** and *lakes** and their *beds** must be managed in a manner which safeguards their life supporting capacity and recognises and provides for the RP-SCHED2 Values when decisions are made on avoiding, remedying or mitigating the adverse *effects** of activities or in relation to any other function under the Resource Management Act 1991 exercised by the Regional Council or *Territorial Authorities**. The individual Values and their associated management objectives are set out in the RP-SCHED2 Surface *Water** Management Values Key and repeated in Table 7.

Table 7 Surface *Water** Management Values and Management Objectives

Value Group	Individual Values		Management Objective
Ecosystem Values	NS	Natural State	The <i>river*</i> and its <i>bed*</i> are maintained in their natural state
	LSC	Life-supporting Capacity	The <i>water body*</i> and its <i>bed*</i> support healthy aquatic life / ecosystems
	SOS-A	Sites of Significance – Aquatic	Sites of significance for indigenous aquatic biodiversity are maintained or enhanced
	SOS-R	Sites of Significance – Riparian	Sites of significance for indigenous riparian biodiversity are maintained or enhanced
	IS	Inanga Spawning	The <i>water body*</i> and its <i>bed*</i> sustain healthy inanga spawning and egg development
	WM	<i>Whitebait*</i> Migration	The <i>waterbody*</i> and its <i>bed*</i> are maintained or enhanced to provide safe passage of inwardly migrating juvenile native fish known collectively as <i>whitebait*</i>
Recreational and Cultural Values	CR	Contact Recreation	The <i>waterbody*</i> and its <i>bed*</i> are suitable for contact recreation
	AM	Amenity	The <i>amenity values</i> of the <i>waterbody*</i> and its <i>bed*</i> (and its margins where in public ownership) are maintained or enhanced
	MAU	<i>Mauri*</i>	The <i>mauri*</i> of the <i>waterbody*</i> and its <i>bed*</i> is maintained or enhanced
	SOS-C	Sites of Significance - Cultural	Sites of significance for cultural values are maintained
	TF	Trout Fishery	The <i>waterbody*</i> and its <i>bed*</i> sustain healthy rainbow or brown trout fisheries
	TS	Trout Spawning	The <i>waterbody*</i> and its <i>bed*</i> meet the requirements of rainbow and brown trout spawning and larval and fry development
	AE	Aesthetics	The aesthetic values of the <i>waterbody*</i> and its <i>bed*</i> are maintained or enhanced
<i>Water*</i> Use	WS	<i>Water*</i> Supply	The <i>water*</i> is suitable, after treatment, as a drinking <i>water*</i> source for human consumption
	IA	Abstraction for <i>Industrial activities*</i>	The <i>water*</i> is suitable as a <i>water*</i> source including for hydroelectricity generation*
	I	Irrigation	The <i>water*</i> is suitable as a <i>water*</i> source for irrigation
	SW	Stockwater	The <i>water*</i> is suitable as a supply of drinking <i>water*</i> for livestock
	DFS	<i>Domestic Food Supply*</i>	The <i>water*</i> is suitable for domestic food production

Value Group	Individual Values		Management Objective
Social/ Economic Values	CAP	Capacity to Assimilate Pollution	The capacity of a <i>waterbody</i> * and its <i>bed</i> * to assimilate pollution is not exceeded
	FC/D	Flood Control and Drainage	The integrity of existing flood and <i>river</i> * bank erosion protection <i>structures</i> * and existing drainage <i>structures</i> * is not compromised and the risks associated with flooding and erosion are managed sustainably
	EI	Existing <i>Infrastructure</i> [^]	The integrity of existing <i>infrastructure</i> [^] is not compromised

* *Water Management Areas** and *Water Management Sub-Areas** throughout the Region (and particularly those with good head and flow available) may have potential for hydroelectricity generation. Further *site**-specific assessment will be needed to establish the locations where such potential may be realised while having regard to the RP-SCHED2 Values of the relevant *waterbodies** and their *beds**.

Water* quality

Surface Water* Quality

LF-FW-P5: Water quality targets*

In RP-SCHED5, *water quality targets** relating to the RP-SCHED2 Values (repeated in Table 7) are identified for each *Water Management Sub-area**. Other than where they are incorporated into *permitted activity*[^] rules as *conditions*[^] to be met, the *water quality targets** in RP-SCHED5 must be used to inform the management of surface *water** quality in the manner set out in LF-FW-P6, LF-FW-P7 and LF-FW-P8.

LF-FW-P6: Ongoing compliance where *water quality targets** are met

1. Where the existing *water** quality meets the relevant RP-SCHED5 *water quality targets** within a *Water Management Sub-area**, *water** quality must be managed in a manner which ensures that the *water quality targets** continue to be met beyond the zone of *reasonable mixing* (where mixing is applicable).
2. For the avoidance of doubt:
 - a. in circumstances where the existing *water** quality of a *Water Management Sub-area** meets all of the *water quality targets** for the *Sub-area** (1) applies to every *water quality target** for the *Sub-area**
 - b. in circumstances where the existing *water** quality of a *Water Management Sub-area** meets some of the *water quality targets** for the *Sub-area** (1) applies only to those *water quality targets** that are met
 - c. for the purpose of (1) *reasonable mixing* is only applicable to a *discharge** from an identifiable location.

LF-FW-P7: Enhancement where *water quality targets** are not met

1. Where the existing *water** quality does not meet the relevant RP-SCHED5 *water quality targets** within a *Water Management Sub-area**, *water** quality within that *Sub-area** must be managed in a manner that enhances existing *water** quality in order to meet:

- a. the *water quality target** for the *Water Management Area** in RP-SCHED5, and/or
 - b. the relevant RP-SCHED2 Values and management objectives that the *water quality target** is designed to safeguard.
2. For the avoidance of doubt:
 - a. in circumstances where the existing *water** quality of a *Water Management Sub-area** does not meet all of the *water quality targets** for the *Sub-area**, (1) applies to every *water quality target** for the *Sub-area**
 - b. in circumstances where the existing *water** quality of a *Water Management Sub-area** does not meet some of the *water quality targets** for the *Sub-area**, (1) applies only to those *water quality targets** not met.

LF-FW-P8: Management of *water** quality in areas where existing *water** quality is unknown

1. Where there is insufficient data to enable a comparison of the existing *water** quality with the relevant RP-SCHED5 *water quality targets**, *water** quality within the *Water Management Sub-area** must be managed in a manner which, beyond the zone of *reasonable mixing** (where *reasonable mixing** is applicable):
 - a. maintains or enhances the existing *water** quality
 - b. has regard to the likely *effect** of the activity on the relevant RP-SCHED2 Values that the *water quality target** is designed to safeguard
 - c. has regard to relevant information about the existing *water** quality in upstream or downstream *Water Management Sub-areas**, where such information exists.
2. For the avoidance of doubt:
 - a. in circumstances where there is insufficient data to enable a comparison of the existing *water** quality with all of the *water quality targets** for a *Water Management Sub-area** (1) applies to every *water quality target** for the *Sub-area**
 - b. in circumstances where there is insufficient data to enable a comparison of the existing *water** quality with some of the *water quality targets** for a *Water Management Sub-area** (1) applies only to those *water quality targets** with insufficient data
 - c. for the purpose of (1) *reasonable mixing** is only applicable to a *discharge** from an identifiable location.

Groundwater quality

LF-FW-P9: *Maintenance of groundwater quality*

1. *Discharges** and *land** use activities must be managed in a manner which maintains the existing groundwater quality, or where groundwater quality is degraded/over allocated as a result of human activity, it is enhanced.
2. An exception may be made under (1) where a *discharge** onto or into *land** better meets the purpose of the RMA than a *discharge** to *water**, provided that the best practicable *option** is adopted for the treatment and *discharge** system.
3. Groundwater takes in the vicinity of the coast must be managed in a manner which avoids saltwater intrusion.

Discharges* and land* use activities affecting water* quality

LF-FW-P10: *Land* use activities affecting groundwater and surface water* quality*

The management of *land** use activities affecting groundwater and surface *water** must give *effect** to the strategy for surface *water** quality set out in LF-FW-P5, LF-FW-P6, LF-FW-P7 and LF-FW-P8, and the strategy for groundwater quality in LF-FW-P9, by managing diffuse *discharges** of *contaminants** in the following manner:

1. identifying in the regional plan targeted *Water Management Sub-areas**. Targeted *Water Management Sub-areas** are those sub-areas where, collectively, *land** use activities are significant contributors to elevated *contaminant** levels in groundwater or surface *water**
2. identifying in the regional plan intensive farming *land** use activities. Intensive farming *land** use activities are rural *land** use activities that (either individually or collectively) make a significant contribution to elevated *contaminant** levels in the targeted *Water Management Sub-areas** identified in (1) above
3. actively managing the intensive farming *land** use activities identified in (2) including through regulation in the regional plan, in the manner specified in LF-FW-P11
4. the Regional Council must continue to monitor ground and surface *water** quality in *Water Management Sub-areas** not identified in (1) and rural *land** uses not identified in (2). Where monitoring shows the thresholds in (1) and (2) are met then the regional plan must be amended so that those further *Water Management Sub-areas** and rural *land** uses are included in the management regime set out in (3).

LF-FW-P11: Regulation of intensive farming *land use activities affecting groundwater and surface *water** quality**

1. Nutrients

- a. Nitrogen leaching maximums must be established in the regional plan which:
 - i. take into account all the non-point sources of nitrogen in the catchment
 - ii. will achieve the strategies for surface *water** quality set out in LF-FW-P5, LF-FW-P6, LF-FW-P7 and LF-FW-P8, and the strategy for groundwater quality in LF-FW-P9
 - iii. recognise the productive capability of *land** in the *Water Management Sub-area**
 - iv. are achievable on most farms using good management practices
 - v. 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.
- b. Existing intensive farming *land** use activities must be regulated in targeted *Water Management Sub-areas** to achieve the nitrogen leaching maximums specified in (a).
- c. New intensive farming *land** use activities must be regulated throughout the Region to achieve the nitrogen leaching maximums specified in (a).

2. Faecal contamination

- a. Those persons carrying out existing intensive farming *land** use activities in the targeted *Water Management Sub-areas** listed in Table 11 or new conversions

to intensive farming *land** use activities anywhere in the Region must be required, amongst other things, to:

- i. prevent cattle access to some surface *waterbodies** and their *beds**
- ii. mitigate faecal contamination of surface *water** from other entry points (eg., race run-off)
- iii. establish programmes for implementing any required changes.

3. Sediment

- a. In those *Water Management Sub-areas** 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 RPS-LF-LAND.

LF-FW-P12: Point source *discharges** to *water**

The management of point source *discharges** into surface *water** must have regard to the strategies for surface *water** quality management set out in RPS-LF-FW-P6, LF-FW-P7 and LF-FW-P8, while having regard to:

1. the degree to which the activity will adversely affect the RP-SCHED2 Values for the relevant *Water Management Sub-area**
2. whether the *discharge**, in combination with other *discharges**, including non-point source *discharges** will cause the RP-SCHED5 *water quality targets** to be breached
3. the extent to which the activity is consistent with *contaminant** treatment and *discharge** best management practices
4. the need to allow reasonable time to achieve any required improvements to the quality of the *discharge**
5. whether the *discharge** is of a temporary nature or is associated with necessary *maintenance** or *upgrade** work and the *discharge** cannot practicably be avoided
6. whether adverse *effects** resulting from the *discharge** can be offset by way of a financial contribution set in accordance with RP-FC
7. whether it is appropriate to adopt the *best practicable option**.

LF-FW-P13: Point source *discharges** to *land**

*Discharges** of *contaminants** onto or into *land** must be managed in a manner which:

1. does not result in pathogens or other toxic substances accumulating in soil or pasture to levels that would render the soil unsafe for agricultural, domestic or recreational use
2. has regard to the strategies for surface *water** quality management set out in LF-FW-P6, LF-FW-P7 and LF-FW-P8, and the strategy for groundwater management set out in LF-FW-P9
3. maximises the reuse of nutrients and *water** contained in the *discharge** to the extent reasonably practicable
4. results in any *discharge** of liquid to *land** generally not exceeding the available *water** storage capacity of the soil (deferred irrigation)
5. ensures that adverse *effects** on *rare habitats**, *threatened habitats** and *at-risk habitats** are avoided, remedied or mitigated.

LF-FW-P14: Sewage* discharges*

Notwithstanding other policies in this chapter:

1. before entering a surface *waterbody** all new *discharges** of treated *sewage** must:
 - a. be applied onto or into *land**, or
 - b. flow overland, or
 - c. pass through an alternative system that mitigates the adverse *effects** on the *mauri** of the receiving *waterbody**, and
2. all existing direct *discharges** of treated *sewage** into a surface *waterbody** must change to a treatment system described under (1) by the year 2020 or on renewal of an existing consent, whichever is the earlier date.

Water* quantity and allocation

Policies applying to both surface *water** and groundwater

LF-FW-P15: Reasonable and justifiable need for *water**

Subject to LF-FW-P21, the amount of *water** taken by resource users must be reasonable and justifiable for the intended use. In addition, the following specific measures for ensuring reasonable and justifiable use of *water** must be taken into account when considering consent applications to take *water** for irrigation, *public water supply**, animal drinking *water**, dairy shed washdown or *industrial activity** use, and during reviews of consent *conditions*[^] for these activities.

1. For irrigation, *resource consent*[^] applications must be required to meet a reasonable use test in relation to the maximum daily rate of abstraction, the irrigation return period and the seasonal or annual volume of the proposed take. When making decisions on the reasonableness of the rate and volume of take sought, the Regional Council must:
 - a. consider *land** use, crop *water** use requirements, on-site physical factors such as soil *water**-holding capacity, and climatic factors such as rainfall variability and potential evapo-transpiration
 - b. assess applications either on the basis of an irrigation application efficiency of 80% (even if the actual system being used has a lower application efficiency), or on the basis of a higher efficiency where an application is for an irrigation system with a higher efficiency
 - c. link actual irrigation use to soil moisture measurements or daily soil moisture budgets in consent *conditions*[^].
2. For domestic use, animal drinking *water** and dairy shed washdown *water**, reasonable needs must be calculated as:
 - a. up to 300 litres per person per day for domestic needs
 - b. up to 70 litres per animal per day for drinking *water**
 - c. up to 70 litres per animal per day for dairy shed washdown.
3. For *industrial activity** uses, *water** allocation must be calculated where possible in accordance with best management practices for *water** efficiency for that particular industry.
4. For *public water supplies**, the following must generally be considered to be reasonable:
 - a. an allocation of 300 litres per person per day for domestic needs, plus
 - b. an allocation for commercial use equal to 20% of the total allocation for domestic needs, plus

- c. an allocation for *industrial activity** use calculated, where possible, in accordance with best management practices for *water** efficiency for that particular industry, plus
 - d. an allocation necessary for hospitals, other facilities providing medical treatment, marae, schools or other *educational facilities**, New Zealand Defence Force facilities or correction facilities, plus
 - e. an allocation necessary for public amenity and recreational facilities such as gardens, parks, sports fields and swimming pools, plus
 - f. an allocation necessary to cater for the reasonable needs of animals or agricultural uses that are supplied by the *public water supply** system, plus
 - g. an allocation necessary to cater for growth, where urban growth of the municipality is provided for in an operative *district plan*[^] for the area and is reasonably forecast, plus
 - h. an allocation for leakage equal to 15% of the total of (a) to (g) above.
5. When making decisions on consent applications where the existing allocation for a *public water supply** exceeds the allocation determined in accordance with (4)(a) to (4)(h) above:
- a. consideration must be given to imposing a timeframe within which it is reasonably practicable for the existing allocation to be reduced to the determined amount, or
 - b. if (1) is not imposed, an alternative allocation must be determined based on the particular social and economic circumstances of the community serviced by the *public water supply** and the actual and potential *effects** of the abstraction on the relevant RP-SCHED2 Values for the reach of *river** or its *bed** affected by the take.

LF-FW-P16: Efficient use of *water**

*Water** must be used efficiently, including by the following measures:

- 1. requiring *water** audits and *water** budgets to check for leakages and *water**-use efficiency as appropriate
- 2. requiring the use of, or progressive *upgrade** to, *infrastructure*[^] for *water** distribution that minimises the loss of *water** and restricts the use of *water** to the amounts determined in accordance with LF-FW-P15
- 3. enabling the transfer of *water permits*[^]
- 4. promoting *water** storage
- 5. raising awareness about *water** efficiency issues and techniques
- 6. requiring monitoring of *water** takes, including by installing *water** metering and telemetry.

Policies for surface *water**

LF-FW-P17: Overall approach for surface *water** allocation

- 1. The requirements of *water conservation orders*[^] must be given effect under this Plan.
- 2. Takes and flow regimes lawfully established for hydroelectricity generation as at 31 May 2007 must be provided for prior to implementing (3) and (4) below.
- 3. Core allocations of surface *water** from *rivers** must be determined in accordance with LF-FW-P18 and LF-FW-P19. Takes that comply with the relevant core allocation, when assessed in combination with all other takes, must be allowed.

4. Supplementary allocations of surface *water** from *rivers** must be determined in accordance with LF-FW-P20.
5. Takes from *rivers** must be apportioned, restricted or suspended when *river** flows are at or below their minimum flows in accordance with the provisions of LF-FW-P21.
6. Takes of *water** from *lakes** must comply with LF-FW-P22.

LF-FW-P18: Core allocations and minimum flows

1. The taking of *water** from *rivers** must be managed in accordance with the minimum flows and cumulative core allocations set out in RP-SCHED3.
2. The minimum flows and cumulative core allocations set out in RP-SCHED3 must be set after providing for any takes and flow regimes lawfully established for hydroelectricity generation as at 31 May 2007.

LF-FW-P19: Approach to setting minimum flows and core allocations

1. Where good hydrological information, such as a specific *water** resource study or a long-term flow record, is available it must be used to set minimum flows and core allocations in RP-SCHED3.
2. Where information described in (1) above is not available, the minimum flows and core allocations set out in RP-SCHED3 must generally be a minimum flow equal to the estimated or calculated one-day mean annual low flow, and a core allocation equal to a percentage of the minimum as specified in RP-SCHED3.
3. The setting of a revised minimum flow or core allocation that is an alternative to that set in RP-SCHED3 must occur through a plan change process.

LF-FW-P20: Supplementary *water** allocation

In addition to the core allocations set out in LF-FW-P18, a supplementary allocation from *rivers** may be provided:

1. in circumstances where *water** is only taken when the *river** flow is greater than the median flow, and the total amount of *water** taken by way of a supplementary allocation does not exceed 10% of the actual flow in the *river** at the time of abstraction, and
2. in circumstances where it can be shown that the supplementary allocation will not:
 - a. increase the frequency or duration of minimum flows
 - b. lead to a significant departure from the natural flow regime, including the magnitude of the median flow and the frequency of flushing flows
 - c. cause any adverse *effects** that are more than minor on the RP-SCHED2 Values of the *waterbody** or its *bed**
 - d. limit the ability of anyone to take *water** under a core allocation
 - e. derogate from *water** allocated to hydroelectricity generation.

LF-FW-P21: Apportioning, restricting and suspending takes in times of minimum flow

When a *river** is at or below its minimum flow, takes from it must be managed in the following manner:

1. **Permitted takes** - Takes that are permitted by this Plan (surface *water** and groundwater takes) or are for fire-fighting purposes must be allowed to continue regardless of *river** flow.
2. **Existing hydroelectricity generation takes** - must be allowed to continue subject only to any minimum flow restrictions specified in their consent *conditions*[^].
3. **Supplementary takes** - must cease at a flow specified in their consent *conditions*[^] and that cessation flow must be higher than the RP-SCHED3 minimum flow such that the requirements of LF-FW-P20(2)(a) are met.
4. **Essential takes** - The following core *water** allocation takes are deemed essential and must be managed in the manner described:
 - a. takes greater than permitted by this Plan (and therefore subject to *resource consent*[^]) that are required for reasonable domestic needs, reasonable needs of animals for drinking *water**, and reasonable dairy shed washdown *water** must be allowed to continue regardless of *river** flow, but must not exceed:
 - i. up to 250 litres per person per day for domestic needs
 - ii. up to 70 litres per animal per day for drinking *water**
 - iii. up to 70 litres per animal per day for dairy shed washdown
 - b. takes required to meet the reasonable needs of hospitals, other facilities providing medical treatment, marae, schools or other *educational facilities** New Zealand Defence Force facilities or correction facilities must be allowed to continue regardless of *river** flow, but must be required to minimise the amount of *water** taken to the extent reasonably practicable
 - c. takes which were lawfully established at the time of Plan notification (31 May 2007) required for industries which, if their take were to cease, would significantly compromise a community's ability to provide for its social, economic or cultural wellbeing or for its health or safety (including the hygienic production and processing of perishable food), must be allowed to continue regardless of *river** flow, but must be required to minimise the amount of *water** taken to the extent reasonably practicable
 - d. *public water supply** takes must be restricted to a total public *water** consumption calculated as follows:
 - i. an allocation of 250 litres per person per day for domestic needs, plus
 - ii. an allocation for commercial use equal to 20% of the total allocation for domestic needs, plus
 - iii. an allocation which meets the reasonable needs of those facilities and industries listed under (4)(b) and (4)(c) where such facilities and industries are connected to the *public water supply** system, plus
 - iv. any allocation necessary to cater for the reasonable needs of animals that are supplied by the *public water supply** system, plus
 - v. an allocation for leakage equal to 15% of the total of (i) to (iv) above.
5. **Non-essential takes** - Other core *water** allocation takes, including irrigation takes but excluding the essential takes described under (4), must be managed in the following manner:
 - a. *Water** takes must be required to cease when the *river** is at or below its minimum flow, as set out in LF-FW-P18.
 - b. *Water** takes must be allowed to recommence once the *river** flow has risen above its minimum flow.
6. **Meaning of “core *water** allocation take”** - For the purposes of this policy, a core *water** allocation take means a take that has been granted consent in accordance with a core allocation made under LF-FW-P18, or in accordance with a previous core allocation regime.

LF-FW-P22: Surface *water** allocation – *lakes**

Decisions on *resource consent*^ applications to take *water** from a *lake** must ensure that there are no significant adverse *effects** on the RP-SCHED2 Values of the *lake** and have regard to the policies for indigenous *biological diversity*^ in RP-ECO.

Policies for *bores** and groundwater

LF-FW-P23: Overall approach for *bore** management and groundwater allocation

1. New *bores** must be constructed and managed in accordance with RP-LF-TUD-P16.
2. *Groundwater Management Areas** are mapped in RP-SCHED4.
3. Total groundwater allocations must comply with the annual allocable volumes for *Groundwater Management Areas** set out in RPS-LF-FW-P24.
4. The measured or modelled *effects** of a proposed groundwater take on other groundwater users, surface *waterbodies** and saltwater intrusion must be managed in accordance with RP-LF-TUD-P13, RP-LF-TUD-P17, RP-LF-TUD-P18, and RP-LF-TUD-P19.

LF-FW-P24: *Groundwater Management Areas**

The total amount of consented groundwater allocated from each *Groundwater Management Area** mapped in RP-SCHED4 must not exceed the annual allocable volume for the *GWMA** specified in RP-SCHED4.

*Beds** of *rivers** and *lakes**

LF-FW-P25: General management of the *beds** of *rivers** and *lakes**

Activities in, on, under or over the *beds** of *rivers** and *lakes** must generally be managed in a manner which:

1. recognises and provides for the RP-SCHED2 Values for the *Water Management Sub-area(s)** in which the activity takes place, in the manner described in RPS-LF-FW-P26, RPS-LF-FW-P27 and RPS-LF-FW-P28
2. avoids any significant reduction in the ability of a *river** and its *bed** to convey flood flows, or significant impedance to the passage of floating debris
3. avoids, remedies or mitigates any significant adverse *effects** on the stability and function of the *beds** of *rivers** and *lakes**, and existing *structures** including flood and erosion control *structures**
4. avoids, remedies or mitigates any significant reduction in the habitat diversity, including the morphological diversity, of the *river** or *lake** or its *bed**
5. manages *effects** on natural character and public access in accordance with the relevant policies in RPS-ECO. Natural character can include the natural style and dynamic processes of the *river**, such as *bed** style and width and the quality and quantity of *bed** habitat
6. provides for the safe passage of fish both upstream and downstream
7. ensures that the existing nature and extent of navigation of the *river** or *lake** are not obstructed

8. ensures that access required for the *operation**, *maintenance**, and *upgrade** of *infrastructure*[^] and other physical resources of regional or national importance is not obstructed
9. provides for continued public access in accordance with RPS-NATC-P3.

LF-FW-P26: Activities in *sites with a Value of Natural State, Sites of Significance - Cultural, or Sites of Significance - Aquatic**

In *sites** with a RP-SCHED2 Value of Natural State, Sites of Significance - Cultural or Sites of Significance - Aquatic, activities in, on, under or over the *beds** of *rivers** and *lakes** must be managed in a manner which:

1. avoids adverse *effects** on these Values in the first instance, or
2. for *infrastructure*[^] and other resources of regional and national importance, or activities that result in an environmental benefit, remedies or mitigates those *effects** where it is not practicable to avoid them, and
3. maintains the habitat and spawning requirements of the species identified.

LF-FW-P27: Activities in *rivers or *lakes** and their *beds** with a Value of Flood Control and Drainage**

In reaches of *rivers** or *lakes** and their *beds** with a RP-SCHED2 Value of Flood Control and Drainage, activities in, on, under or over the *beds** of *rivers** and *lakes** and on *land** adjacent to the *bed** where the Value is located must be managed in a manner which:

1. enables the degree of flood hazard and erosion protection existing at the time of Plan notification (31 May 2007) to be maintained or enhanced
2. addresses adverse *effects** by:
 - a. in the first instance, avoiding, remedying or mitigating adverse *effects** on the instream morphological components of natural character and other RP-SCHED2 Values
 - b. providing consent applicants with the option of making an offset
 - c. allowing compensation by way of a financial contribution in accordance with the policies in RP-FC.

LF-FW-P28: Activities in *rivers or *lakes** and their *beds** with other RP-SCHED2 Values**

In *sites** with RP-SCHED2 Values other than Natural State, Sites of Significance - Cultural, Sites of Significance - Aquatic, or Flood Control and Drainage, activities in, on, under or over the *beds** of *rivers** and *lakes** must be managed in a manner which:

1. in the first instance avoids, remedies or mitigates significant adverse *effects** on the instream morphological components of natural character and RP-SCHED2 Values
2. provides consent applicants with the option of making an offset
3. allows compensation by way of a financial contribution in accordance with the policies in RP-FC.

LF-FW-P29: Essential and beneficial activities

Activities in, on, under or over the *beds** of *rivers** and *lakes** that are essential or result in an environmental benefit must generally be allowed, including:

1. the use, *maintenance** and *upgrading** of existing *infrastructure*^ and other existing physical resources of regional or national importance
2. works designed to maintain or improve the stability and functionality of existing *structures**
3. the removal of derelict, unlawful or non-functional *structures**
4. the restoration or enhancement of natural habitats.

LF-FW-P30: Gravel extraction

Subject to Policies RPS-LF-FW-P25 to RPS-LF-FW-P29 and the need to ensure that gravel extraction volumes are sustainable, the benefit the gravel resource provides for use and development and the flood protection benefit of having it managed will be recognised.

Methods

The taking of surface *water** and groundwater, discharging *contaminants** to surface *water** and to *land**, and the undertaking of activities that disturb the *beds** of *rivers** or *lakes**, are largely regulated activities. Part II: Regional Plan contains rules relating to the activities described in this chapter. The key non-regulatory methods the Regional Council will pursue are outlined below.

LF-FW-M8 Large <i>Water</i> * Abstractors	
Description	The aim of this method is to provide assistance to large <i>water</i>* abstractors to identify options for improving the <i>water</i>* abstraction, distribution and use components of their activities. It is expected this method will reduce the abstraction pressure on the groundwater and surface <i>water</i>* resources, while providing abstractors with financial benefits and their business/customers with greater certainty of supply. The emphasis will be on working with large abstractors to identify and implement opportunities for increasing <i>water</i>* use efficiency, reducing distribution network leakages, agreeing priority of use within distribution networks, and consideration of alternative <i>water</i>* supply and storage options.
Who	The Regional Council, <i>Territorial Authorities</i> *, industry (including hydroelectricity generators) and large irrigators will work together to develop, fund and implement this programme.
Links to Policy	This method implements RPS-LF-FW-P15 and RPS-LF-FW-P16.
Target	All major abstractors in the Region have been contacted and assistance provided where requested by 2016.

LF-FW-M9 Sewage* Treatment Plant Upgrades	
Description	The aim of this method is to assist <i>Territorial Authorities</i>* to seek central Government funding for <i>sewage</i>* treatment plant <i>upgrades</i>, given that the plants make a significant contribution to <i>contaminants</i>* to <i>waterbodies</i>* during low flows. The Regional Council will work with <i>Territorial Authorities</i>* to analyse their treatment and disposal options and to develop a package to present to Government with the aim of securing capital works funding to reduce the environmental impact of these <i>discharges</i>*.

LF-FW-M9 Sewage* Treatment Plant Upgrades	
Who	Regional Council, <i>Territorial Authorities*</i> , Ministry of Health, local health agencies (eg., MidCentral Health) and iwi authorities.
Links to Policy	This method implements RPS-LF-FW-P5, RPS-LF-FW-P9, RPS-LF-FW-P12 and RPS-LF-FW-P14
Targets	Central Government funding applications completed for <i>upgrade</i> of <i>sewage*</i> treatment plants as required.

LF-FW-M10 On-site Wastewater* System Forum	
Description	The aim of this method is to facilitate implementation of the Regional Council's Manual for On-Site Wastewater Systems Design and Management. The Regional Council will establish a forum to aid understanding and implementation of the manual and will undertake regular reviews of new types of on-site treatment and disposal systems.
Who	The forum will comprise, as a minimum, representatives from the Regional Council, <i>Territorial Authorities*</i> , consulting engineers and system installers.
Links to Policy	This method implements RPS-LF-FW-P5, RPS-LF-FW-P9 and RPS-LF-FW-P13.
Target	Two meetings per year.

LF-FW-M11 Sewage* Discharges* to Water*	
Description	The Regional Council will provide assistance to <i>Territorial Authorities*</i> to <i>upgrade</i> existing <i>sewage*</i> treatment systems that directly <i>discharge*</i> treated <i>sewage*</i> to the Region's <i>waterbodies*</i>. The Regional Council to work with <i>Territorial Authorities*</i> to reduce <i>water*</i> volume, explore <i>land*</i> application options and assist with funding opportunities.
Who	Regional Council, <i>Territorial Authorities*</i> and iwi authorities.
Links to Policy	This method implements RPS-LF-FW-P5 and RPS-LF-FW-P14.
Target	To stop direct <i>sewage* discharges*</i> to <i>water*</i> by 2020.

LF-FW-M12 Stormwater System Discharge* Upgrades	
Description	The Regional Council will provide assistance to <i>Territorial Authorities*</i> wanting to <i>upgrade</i> the treatment of their existing urban stormwater system <i>discharges*</i>, where these are into <i>waterbodies*</i>. The Regional Council to work with <i>Territorial Authorities*</i> to reduce <i>water*</i> volume, explore <i>land*</i> disposal options and assist with funding opportunities.

LF-FW-M12 Stormwater System <i>Discharge*</i> Upgrades	
Who	Regional Council, <i>Territorial Authorities*</i> and iwi authorities.
Links to Policy	This method implements RPS-LF-FW-P5, RPS-LF-FW-P9, RPS-LF-FW-P12 and RPS-LF-FW-P13.
Target	To reduce the number, and improve the quality, of urban stormwater <i>discharges*</i> by 2016.

LF-FW-M13 Lake Horowhenua and Other Coastal <i>Lakes</i>	
Description	The Regional Council and other agencies will work with all agencies to protect and enhance Lake Horowhenua and other coastal <i>lakes</i>. Landowners and other agencies will be provided with advice and project management assistance to carry out enhancement and protection measures including fencing, planting, sediment control, <i>wastewater*</i>/stormwater management and <i>fertiliser*</i> application management. The Regional Council will seek funding from third parties to assist with this method. The effectiveness of the protection and enhancement works in achieving improved <i>water*</i> quality within Lake Horowhenua and other Coastal <i>Lakes</i> will be monitored. The method will include publicity to increase public awareness about the importance of the <i>lakes</i>. The method will include utilising industry codes of practice as a means of enhancing and protecting <i>water*</i> quality eg., the Code of Practice for Commercial Vegetable Growing in the Horizons Region.
Who	Regional Council, <i>Territorial Authorities*</i> , Fish & Game New Zealand, Department of Conservation, iwi, Horticulture NZ, landowners and other agencies.
Links to Policy	This method implements RPS-LF-FW-P10.
Target	The <i>Lake</i> is actively managed, including protection and enhancement measures, within 5 years of this Plan becoming operative.

LF-FW-M14 <i>Lake*</i> Quality Research, Monitoring and Reporting	
Description	The aim of this method is to develop an integrated research, monitoring and reporting programme. The focus will be to define the current state of the quality of the Region's <i>lakes*</i>, particularly the Region's coastal lakes. The method will seek to assess the state and quality of the <i>lakes*</i> to better understand the influences on <i>water*</i> quality in those <i>lakes*</i>. The outcomes will link into work to refine existing policies, objectives and methods in terms of the need to add rural <i>land*</i> uses and <i>Water Management Sub-areas*</i> in managing nutrient management and <i>effects*</i> on <i>water*</i> quality. The outcomes will also guide implementation planning and allow implementation effectiveness is to be assessed.
Who	Regional Council, Department of Conservation, Fish & Game New Zealand, Horticulture New Zealand, DairyLink, research institutes, universities, non-Government agencies, community groups and iwi authorities as required.

LF-FW-M14 Lake* Quality Research, Monitoring and Reporting	
Links to Policy	This method implements RPS-LF-FW-P6, RPS-LF-FW-P7, RPS-LF-FW-P10 and RPS-LF-FW-P11.
Targets	A research, monitoring and reporting programme that defines the current state of <i>water*</i> quality of the Region's <i>lakes*</i> (particularly coastal lakes) and measure changes in <i>water*</i> quality.

LF-FW-M15 Trout and Native Fish Spawning Habitat	
Description	The Regional Council and other agencies will work with landowners to protect and enhance <i>waterbodies*</i> and their <i>beds*</i> that serve as spawning <i>sites*</i> for brown and rainbow trout and native fish. Resources will be directed towards the most significant <i>sites*</i>. Landowners will be provided with advice and financial/project management assistance to carry out enhancement and protection measures including fencing, planting, providing fish passage and pest plant and pest animal control. The Regional Council will seek funding from third parties to assist with this method. The effectiveness of the protection and enhancement works will be monitored. The method will include publicity to increase public awareness about the importance of trout and native fish.
Who	Regional Council, <i>Territorial Authorities*</i> , Fish & Game New Zealand, Department of Conservation, landowners and funding agencies including He Tini Awa Trust.
Links to Policy	This method implements RPS-LF-FW-P5, RPS-LF-FW-P25 and RPS-LF-FW-P28.
Target	30 of the top trout spawning habitat <i>sites*</i> and native fish habitat spawning <i>sites*</i> are actively managed, including protection and enhancement measures, within 10 years of this Plan becoming operative.

LF-FW-M16 Water* Quality Improvement	
Description	The Regional Council and other agencies will work with landowners to protect and enhance the <i>water*</i> quality of the Region's <i>waterbodies*</i>. Landowners in those <i>Water Management Sub-areas*</i> where the nutrient management (non-point source <i>discharge*</i>) control rules are to be introduced will receive the highest priority for assistance. This method represents an expansion of the Regional Council's existing <i>water*</i> quality improvement programme, which focuses almost entirely on dairy farmers as part of the Dairying and Clean Streams Regional Action Plan for Manawatū-Whanganui Region. Landowners will be provided with advice and financial/project management assistance to carry out enhancement and protection measures including fencing and planting of riparian margins. The Regional Council will seek funding from third parties to assist with this method. The effectiveness of the protection and enhancement works will be monitored.

LF-FW-M16 <i>Water*</i> Quality Improvement	
Who	Regional Council, DairyNZ, Fonterra, Horticulture NZ, <i>Territorial Authorities*</i> and funding agencies including the He Tini Awa Trust and Nga Whenua Rahui.
Links to Policy	This method implements RPS-LF-FW-P5, RPS- LF-FW-P7, and RPS-LF-FW-P11.
Targets	- The targets of the Dairying and Clean Streams Regional Action Plan for Manawatū-Whanganui Region are achieved by the due dates. - Advice and assistance is offered to all landowners affected by the nutrient management rules. - All landowner requests for advice and assistance regarding <i>water*</i> quality improvement are responded to promptly.

LF-FW-M17 Education in Schools <i>Water*</i>	
Description	The aim of this method is to raise awareness amongst the youth of the Region of the significance of the <i>water*</i> (quantity and quality) resource, the threats to it, and what they can do to protect/restore it. This will be achieved through various environmental education programmes/initiatives - for example, Green RIG, EnviroSchools and Trees for Survival.
Who	Regional Council, various national and local environmental education providers and the Youth Environment Forum.
Links to Policy	This method implements RPS-LF-FW-P5.
Targets	The Regional Council develops and delivers a water-related environmental education programme.

LF-FW-M18 Water (Fluvial Resources, Quality and Quantity) Research, Monitoring and Reporting	
Description	The aim of this method is to develop an integrated research, monitoring and reporting programme. The focus will be to define the current state of the natural character of the Region's <i>rivers*</i> by analysing their habitat and morphological diversity through assessments of historical and current data. This may include: planform/ channel morphology classification; fairway width; sinuosity; barforms; percentage of pool, riffle, run, habitat; gravel resources, level of entrenchment, and location and extent of riparian and <i>wetland*</i> areas. The method will also seek to measure changes in natural character, including habitat and morphological diversity. The outcomes will link into monitoring undertaken by the River Works Environmental Code of Practice and support delivery and refinement of existing policies, objectives and methods. The outcomes will be reported in the Council State of the Environment Report and also guide implementation planning and allow implementation effectiveness to be assessed.
Who	Regional Council, Department of Conservation, Fish & Game New Zealand, research institutes, universities, non-Government agencies, community groups and iwi authorities as required.

LF-FW-M18 Water (Fluvial Resources, Quality and Quantity) Research, Monitoring and Reporting	
Links to Policy	This method implements RPS-LF-FW-P5, RPS-LF-FW-P17, RPS-LF-FW-P19, RPS-LF-FW-P25, RPS-LF-FW-P26, RPS-LF-FW-P27, RPS-LF-FW-P28, RPS-LF-FW-P29, and RPS-NATC-P1
Targets	A research, monitoring and reporting programme that defines the current state of the natural character of the Region's <i>rivers</i> * and measure changes in natural character, including habitat and morphological diversity.

Principal reasons

LF-FW-PR2: Values and targets

The Region has been divided into *Water Management Sub-areas** for the purpose of managing *water** quality and quantity. *Waterbodies** and their *beds** within these *Water Management Sub-areas** have been assigned Values which represent the ecosystem, recreational, cultural and social and economic attributes of the *waterbody** and its *bed** (RPS-PF-FW-O3, RPS-LF-FW-P4). *Water quality targets** have been assigned to protect these Values (RPS-LF-FW-P5 to RPS-LF-FW-P8).

LF-FW-PR3: *Discharges** to *water** and *land**

The *freshwater** section deals with *discharges** to *land** and *water** holistically. This is because *discharges** to *land** have the potential to adversely affect groundwater and surface *water** quality if not managed well. Three types of *discharges** of concern have been identified: point source *discharges** to *land** (including *domestic wastewater**), point source *discharges** to *water** (including *industrial activity** *discharges** and treated *sewage**) and non-point source *discharges** to *land** (from agricultural *land** uses). *All these types of discharges** will be managed to meet the objectives and policies for *water** quality (RPS-LF-FW-O3, RPS-LF-FW-P5 to RPS-LF-FW-P8), including *discharges** to *land** (RPS-LF-FW-P13).

Agricultural *land** uses contribute to *waterbodies** not meeting the Region's *water quality targets** for nutrients, faecal contamination and sediment levels. These need to be targeted for control in problem catchments and through the Regional Council's Sustainable Land Use Initiative (SLUI) and Whanganui Catchment Strategy and the regulation of intensive farming (RPS-LF-FW-P11).

Point source *discharges** to *water** need to be managed to achieve *water quality targets** (RPS-LF-FW-P12). This may mean that it is appropriate to consider alternatives to *discharging** to *water**. This may include considering alternative treatment options for all or part of the year, to achieve or move closer to *water quality targets** at critical times of the year. In all cases, point source *discharges** to *water** of untreated *sewage** are culturally unacceptable, and direct *discharges** of treated *sewage** should be changed to involve *land** application before *discharge** (RPS-LF-FW-P14).

LF-FW-PR4: Surface *Water** Quantity

*Water** will be used and allocated in a way which enables *water** to be used for the wellbeing of people and the community, while providing for other Values (RPS-LF-FW-O5, RPS-LF-FW-P17). *Water** allocation limits are set for each *Water Management Sub-area** and *water** will be managed to maintain these limits (RPS-LF-FW-P18 and RPS-LF-FW-P19). When *water** use needs to be restricted, life sustaining and essential *water** takes have first priority (RPS-LF-FW-P21). *Water** harvesting and alternative sources of *water** to surface *water** are also encouraged and provided for (RPS-LF-FW-P20). Efficiency of use is an important consideration, and will ensure that *water** is available to the maximum number of users and is not wasted (RPS-LF-FW-P15 and RPS-LF-FW-P16).

LF-FW-PR5: Groundwater

Groundwater quality and quantity is connected to that of surface *water** and this is recognised in this, while providing for its management separately. *Bores** will be managed to ensure that they are properly constructed, efficient and fully functioning and do not lead to contamination of groundwater, wastage of *water** or unnecessary *effects** on other *bores** or surface *water** bodies (RPS-LF-FW-P23). *Groundwater Management Areas** have been established and sustainable allocations set; groundwater takes will be managed within these allocations (RPS-LF-FW-P24). Groundwater quality within the Region is generally good and is not declining, but maintaining this good quality will be a consideration when managing *discharges** (RPS-LF-FW-P13).

LF-FW-PR6: *Beds* of rivers* and lakes**

The physical nature of the Region's *rivers** and *lakes** and their *beds** is important to maintaining the Values assigned to them. Management of activities in the *beds* of rivers** and *lakes** will be undertaken in order to maintain these Values, and other important physical attributes (RPS-LF-FW-O6, RPS-LF-FW-P25 and LF-FW-P29). Some Values are treated differently. Important aquatic biodiversity *sites**, cultural *sites** and natural state areas would be negatively and potentially permanently harmed by some activities and consequently are given a high level of protection (RPS-LF-FW-P26). Flood control and drainage schemes have damaged *water** Values in some areas, but also provide valuable protection services to the community. Maintaining this level of service is important, while ensuring that other Values are not further compromised (RPS-LF-FW-P27). While recognising the Values, acknowledgement is also needed that some activities, such as *river** restoration, are beneficial and should be allowed to occur (RPS-LF-FW-P29).

Gravel extraction is an important activity in *river* beds**, both for the benefit the gravel resource provides and the flood protection benefit of having it removed from the *river**. However, if not well managed, too much extraction or extraction in an inappropriate manner can damage *river** Values. Gravel extraction needs to be managed to ensure that extraction volumes are sustainable (RPS-LF-FW-P30).

Anticipated environmental results

Anticipated Environmental Result	Link to Policy	Indicator	Data Source
LF-FW-AER2 During the life of this Plan, <i>water*</i> quality and quantity maintain the Values set in this Plan. In <i>Water Management Sub-areass*</i> : - where <i>water quality targets*</i> are met prior to this Plan becoming operative, they continue to be met - where <i>water quality targets*</i> are not met prior to this Plan becoming operative, they are either met or improved from the current state where targeted for action or, where not targeted for action, they are no worse than prior to this Plan becoming operative.	<i>Water</i> : RPS-LF-FW-P4, RPS-LF-FW-P5, RPS-LF-FW-P6, RPS-LF-FW-P7, RPS-LF-FW-P8, RPS-LF-FW-P11, RPS-LF-FW-P12, RPS-LF-FW-P13, RPS-LF-FW-P14, RPS-LF-FW-P15, RPS-LF-FW-P16, RPS-LF-FW-P17, RPS-LF-FW-P18, RPS-LF-FW-P20, RPS-LF-FW-P22, RPS-LF-FW-P25 RPS-LF-FW-P26, RPS-LF-FW-P27, RPS-LF-FW-P28 and RPS-LF-FW-P29 <i>Land*</i> : RPS-LF-LAND-P1, RPS-LF-	- Measured <i>water*</i> quality compared to <i>water quality targets*</i>, especially measures for "muddy waterways", "safe swimming", "safe food gathering", and "aquatic ecosystem health" in priority catchments - Incidents where surface <i>water*</i> quality is confirmed as unfit for use - Measured flows of surface <i>water*</i> compared to the allocation and minimum flow regime outlined in this Plan	- The Regional Council's State of Environment <i>water*</i> quality and quantity monitoring programme - The Regional Council's incidents database - Ministry of Health raw <i>water*</i> monitoring

Anticipated Environmental Result	Link to Policy	Indicator	Data Source
	LAND-P2 and RPS-LF-LAND-P3, Living Heritage: RPS-ECO-P1, RPS-ECO-P2, RPS-ECO-P3, RPS-ECO-P4, and RPS-NATC-P1		
LF-FW-AER3 By 2017, the natural, physical and cultural qualities of the <i>beds* of rivers*</i> are suitable for specified <i>Water Management Sub-area*</i> Values.	<i>Water*</i> : RPS-LF-FW-P4, RPS-LF-FW-P25 RPS-LF-FW-P26, RPS-LF-FW-P27, RPS-LF-FW-P28 and RPS-LF-FW-P29	- Confirmed incidents of damage to the <i>beds* of rivers*</i> - Consents granted for activities in <i>beds* of rivers*</i> and <i>lakes*</i>	- The Regional Council's incidents database - The Regional Council's consents database
LF-FW-AER4 The amount of groundwater used does not exceed replenishment rates and its quality is the same as or better than that measured prior to this Plan becoming operative, other than where <i>discharges* to land*</i> are a permitted activity or are allowed by resource consent.	<i>Water*</i> : RPS-LF-FW-P9, RPS-LF-FW-P13, RPS-LF-FW-P15, RPS-LF-FW-P16, RPS-LF-FW-P23 and RPS-LF-FW-P24	- Groundwater levels Region-wide, but with a focus on Ōpiki and Himatangi areas - Groundwater quality Region-wide, but with a focus on nitrates in Horowhenua and Tararua districts and conductivity along the Foxton-Tangimoana coast - Confirmed incidents where groundwater sources become unavailable (ie., dry up) or <i>water*</i> quality is unfit for use	- The Regional Council's State of Environment groundwater monitoring programme - The Regional Council's compliance monitoring programme - The Regional Council's incidents database - Ministry of Health raw <i>water*</i> monitoring

RP – LF – Land and freshwater

LF – LAND – *Land** use activities

Objectives

LF-LAND-O1: *Accelerated erosion - regulation of *vegetation clearance**, *land disturbance**, *forestry** and *cultivation****

The regulation of *vegetation clearance**, *land disturbance**, *forestry** and *cultivation** in a manner that ensures:

1. *accelerated erosion** and any associated damage to people, buildings and *infrastructure*[^] and other physical resources of regional or national importance are avoided as far as reasonably practicable or otherwise remedied or mitigated, and
2. increased sedimentation in *water bodies** as a result of human activity is avoided as far as reasonably practicable, or otherwise mitigated.

Policies

LF-LAND-P1: *Regional rules*[^] for *vegetation clearance, *land disturbance**, *forestry** and *cultivation****

The Regional Council must:

1. regulate *vegetation clearance**, *land disturbance**, *forestry** and *cultivation** through *regional rules*[^] in accordance with RP-IO-O1, RP-IO-O2 and LF-LAND-O1 and RP-IP-P1 to RP-IP-P8, and
2. manage the *effects** of *vegetation clearance**, *land disturbance** and *cultivation** by requiring *resource consents*[^] for those activities:
 - a. adjacent to some *water bodies**,
 - b. involving the removal of some *woody vegetation** in *Hill Country Erosion Management Sites**,
 - c. involving *land disturbance** or *cultivation** in *Hill Country Erosion Management Sites**,
 - d. involving large-scale *land disturbance**, or
 - e. within the *coastal foredune**

LF-LAND-P2: Consent decision-making for *vegetation clearance**, *land disturbance**, *forestry** and *cultivation**

For *vegetation clearance**, *land disturbance**, *forestry** or *cultivation** and, as an *ancillary activity**, *discharges** to and diversions of surface *water** that requires *resource consent*[^] under RP-LF-LAND-R6, RP-LF-LAND-R7 or RP-LF-LAND-R8, the Regional Council must make decisions on consent applications and set consent *conditions*[^] on a case-by-case basis, having regard to:

1. the Regional Policy Statement, particularly Objective RPS-LF-LAND-O2 and RPS-LF-LAND-P2 and RPS-LF-LAND-P3,
2. managing the *effects** of *land disturbance**, including large scale earthworks, by requiring *Erosion and Sediment Control Plans** or other appropriate plans to be prepared,
3. managing the *effects** of *forestry** by requiring sustainable *forestry** management practices to be adopted and *Erosion and Sediment Control Plans** or other appropriate plans to be prepared,
4. managing the *effects** of *cultivation** on *waterbodies** through the use of sediment run-off control methods and setbacks from *waterbodies**,
5. the appropriateness of establishing *infrastructure*[^] and other physical resources of regional or national importance as identified in RPS-EIT-P1,
6. generally allowing the clearance of *woody vegetation** on established pasture if that clearance will not lead to *accelerated erosion** or the increased sedimentation of *waterbodies**,
7. generally allowing activities that are for the purpose of managing *natural hazards**, including the reduction of flood risk,
8. generally allowing *forestry** for soil conservation purposes,
9. generally allowing activities that result in improved *land** stability or enhanced surface *water** quality,
10. any relevant codes of practice, standards, guidelines, or environmental management plans and accepting compliance with them to the extent that they can be used as *conditions*[^] on *resource consents*[^],
11. sediment and erosion control measures required to reasonably minimise adverse *effects**, including those caused by rainfall and storm events,
12. achieving integrated management through consents that are Region-wide or cover large areas for activities that are widespread and undertaken by or on behalf of a single consent holder including, but not limited to, *infrastructure*[^] and other physical resources of regional or national importance, or *forestry**, provided any such consents are subject to *conditions*[^], including review provisions, enabling *site**-specific matters to be addressed as necessary, and
13. for activities involving, as an *ancillary activity** *discharge** to surface *water**, the matters in RP-LF-LW-P12.

Advice note: The *rules*[^] in this *regional plan*[^] do not authorise the modification or disturbance of any archaeological or registered *waahi tapu*^{*} sites within the area of activity. Written authority from the Heritage New Zealand is required prior to any destruction, damage or modification of an archaeological or registered *waahi tapu*^{*} site or an area where there is reasonable cause to suspect there is an archaeological site. Should any artefacts, bones or any other sites of archaeological or cultural significance be discovered within the area affected by the activity, written authorisation should be obtained from the Heritage New Zealand before any damage, modification or destruction is undertaken.

Rules – *Vegetation clearance*^{*}, *land disturbance*^{*}, *forestry*^{*} and *cultivation*^{*}

Advice notes:

The requirements specified in the Resource Management (National Environmental Standards for Freshwater) Regulations also apply, as rules, in addition to the following rules (including in relation to activities near surface *water*[^] and natural wetlands). One Plan users must refer to the Regulations and they should be read in conjunction with the following rules. Where there is conflict between the provisions of the Regulations and any of the following rules, the more stringent provision will apply.

The requirements specified in the Resource Management (National Environmental Standards for Plantation Forestry) Regulations also apply, as rules, in addition to Rules RP-LF-LAND-R2, RP-LF-LAND-R3, RP-LF-LAND-R8, RP-ECO-R1 and RP-ECO-R2. One Plan users must refer to the Regulations and they should be read in conjunction with these rules. In circumstances where NES-PF clause 6 applies the more stringent provision will apply.

The Resource Management (National Environmental Standards for Plantation Forestry) Regulations 2017 (NES-PF) protections for outstanding freshwater bodies, outstanding natural features and landscapes, significant natural areas, and Water Conservation Orders.

The NES-PF provides for protections for outstanding freshwater bodies (including the protection of significant areas identified as *rare habitat*^{*}, *threatened habitat*^{*} or *at-risk habitat*^{*} in RP-SCHED6 of the One Plan), outstanding natural features and landscapes, significant natural areas, and water conservation orders [regulations 6, 11, 12, 14, 16, 17, 29, 43, 46, 68, 74, 78, 79, 81, 104, and Schedule 3]. Schedules or parts of schedules in the One Plan that meet the protections' definitions and apply when assessing an activity under the NES-PF are:

NES-PF Protection Category	Equivalent One Plan Schedule
Outstanding freshwater bodies	RP-SCHED2: Surface <i>Water</i> [^] Management Values Natural State (NS) Value [Pages 5-54 – 5-57] Trout Fishery (TF) Value with Management Objective of "1: Outstanding" [Pages 5-88 – 5-97] RPS-SCHED7: Regionally Outstanding Natural Features and Landscapes 2. Whakapapa River and river valley, including all of the river catchment 8. Manganui o te Ao River and river valley, including the Makatote and Mangaturuturu Rivers and their valleys, the Waimarino and Orautoha Streams (but not the Waimarino and Orautoha valleys or the Ruatiti Stream or valley)

Significant natural areas	RP-SCHED2: Surface <i>Water</i>^A Management Values Sites of Significance – Aquatic (SOS-A) Value [Pages 5-58 – B69] Sites of significance – Riparian (SOS-R) Value [Pages 5-70 – 5-75] RP-SCHED6: Indigenous Biological Diversity – Whole schedule RPS-SCHED7: Regionally Outstanding Natural Features and Landscapes 1. Tongariro National Park 2. Whakapapa River and river valley, including the river catchment 3. Whanganui River and river valley, upstream of Aramoana 4. Whanganui National Park 5. Kaimanawa Ranges, in particular the skyline and the south-eastern side of the ranges 7. Mount Aorangi – Awarua 8. Manganui o te Ao River and river valley, including the Makatote and Mangaturuturu Rivers and their valleys, the Waimarino and Orautoha Streams (but not the Waimarino and Orautoha valleys or the Ruatiti Stream or valley) 10. The Ruahine Forest Park (land administered by the Department of Conservation) 11. The Tararua Forest Park (land administered by the Department of Conservation) 12. The series of highest ridges and highest hilltops along the full extent of the Ruahine and Tararua Ranges, including within the Forest Parks described in items (10) and (11) 13. Manawatū Gorge, from Balance Bridge to the confluence of the Pohangina and Manawatū Rivers, including the adjacent scenic reserve
Outstanding natural features or landscapes	Regionally Outstanding Natural Features and Landscapes - Whole schedule [Outstanding natural features or landscapes described in RPS-SCHED7 will generally be mapped in the relevant District Plan]
Water Conservation Orders	• National Water Conservation (Rangitikei River) Order 1993 • National Water Conservation (Manganuioteao River) Order 1989 [See Ministry for the Environment website]

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
LF-LAND-R1 Small-scale land disturbance*	Except as regulated by RP-LF-LAND-R7, RP-ECO-R1 and RP-ECO-R2, any <i>land disturbance*</i> pursuant to s9(2) RMA of a total area up to 2500 m² per <i>property*</i> per 12-month period and, as an <i>ancillary activity*</i> any: 1. diversion of <i>water*</i> pursuant to s14(2) RMA on the <i>land*</i> where the land disturbance* is undertaken, or 2. <i>discharge*</i> of sediment into <i>water*</i> pursuant to s15(1) RMA resulting from the <i>land disturbance*</i>.	Permitted	1. The activity must not take place on <i>land*</i> that is within a <i>coastal foredune*</i>. 2. Erosion and sediment control methods, which may include bunding, silt traps, interception drains or other alternative methods, to minimise sediment <i>discharge*</i> to <i>water*</i> must be installed prior to, and maintained during, the <i>land disturbance*</i> activity 3. Any <i>discharge*</i> of sediment into <i>water*</i> must not, after <i>reasonable mixing</i>, cause the receiving <i>waterbody*</i> to breach the <i>water*</i> quality standards for visual clarity set out in RP-SCHED5 for that <i>waterbody*</i>. 4. The activity must not occur on <i>land*</i> that is in, or within 5 m of: a. the <i>bed*</i> of a <i>river*</i> that is permanently flowing, b. the <i>bed*</i> of a <i>river*</i> that is not permanently flowing and has an <i>active bed*</i> width greater than 1 m, c. the <i>bed*</i> of a <i>lake*</i>. 5. The activity must not occur on <i>land*</i> that is in, or within 10 m of: a. A <i>wetland*</i> as identified in RP-SCHED6, b. Sites valued for Trout Spawning as identified in RP-SCHED2,	

			c. Sites of Significance - Aquatic as identified in RP-SCHED2.	
LF-LAND-R2 Non-plantation forestry*	Except as regulated by RP-ECO-R1 and RP-ECO-R2, any <i>non-plantation forestry*</i> pursuant to s9(2) RMA, and as an <i>ancillary activity*</i> any: - disturbance of the <i>bed*</i> of a <i>river*</i> or <i>lake*</i> pursuant to s13(1) RMA by non-plantation <i>forestry*</i>, or - diversion of <i>water*</i> pursuant to s14(2) RMA on the <i>land*</i> (but not within a <i>river*</i>) where the non-plantation <i>forestry*</i> is undertaken, or <i>discharge*</i> of sediment or <i>slash*</i> into <i>water*</i> or onto or into <i>land*</i> that may enter <i>water*</i> pursuant to s15(1) or 15(2A) RMA resulting from the non-plantation <i>forestry*</i>.	Permitted	- The activity must not take place on <i>land*</i> that is within a <i>coastal foredune*</i>. - Any earthworks, the formation of any <i>new track*</i> and any planting or replanting of non-plantation <i>forestry*</i> trees must not occur on <i>land*</i> that is in, or within 5 m of: - the <i>bed*</i> of a <i>river*</i> that is permanently flowing - the <i>bed*</i> of a <i>lake*</i> - a <i>rare habitat*</i>, <i>threatened habitat*</i> or <i>at-risk habitat*</i>. unless the <i>new track*</i> or earthworks in (2)(a) or (2)(b) is: - necessary to connect to and from a formed <i>river*</i> crossing point that is a consented or permitted activity, and/or - for the purpose of the <i>maintenance*</i> or <i>upgrade*</i> of an existing <i>track*</i> or earthwork. - Any new planting of non-plantation <i>forestry*</i> trees and associated formation of any <i>new track*</i> or earthworks must not occur on <i>land*</i> that is in, or within 10 m of <i>wetland*</i> habitat types (including <i>lakes*</i>) as defined in <i>RP-SCHED6</i>. - Any earthworks or the formation of any <i>new track*</i> must not occur on <i>land*</i> that is in, or within 10 m of a reach of a <i>river*</i> or its <i>bed*</i> with a <i>RP-SCHED2</i> Value of Trout Spawning or Trout Fishery, unless the <i>new track*</i> or earthworks is:	

			a. necessary to connect to and from a formed <i>river</i>* crossing point that is a consented or permitted activity, and/or b. for the purpose of the <i>maintenance</i>* or <i>upgrade</i>* of an existing <i>track</i>* or earthwork. 5. If any <i>rare habitat</i>*, <i>threatened habitat</i>* or <i>at-risk habitat</i>* is present within 5 m of an area of non-plantation <i>forestry</i>* prior to undertaking harvesting an <i>Operational Plan</i>*, detailing measures taken to avoid or mitigate adverse <i>effects</i>* on these areas, must be prepared and submitted to the Regional Council at least 48 hours prior to harvesting commencing and the <i>Operational Plan</i>* must be complied with. 6. Any area of non-plantation <i>forestry</i>* that is harvested (other than firebreaks, <i>tracks</i>*, landing <i>sites</i>* or areas in (1) and (2)) must be planted or replanted to protect from erosion as soon as practicable and no later than 18 months from the date of the harvesting, unless the area is left to revegetate naturally. 7. <i>Water</i>*^ run-off controls must be installed and maintained for <i>tracks</i>* and landing <i>sites</i>*. 8. Batters, cuts and side castings must be established by methods that prevent slumping. 9. Felled vegetation must be felled away from and not be dragged through any <i>waterbody</i>* other than where this is necessary to avoid endangering the health and safety of workers, or where it is unavoidable and is the best harvest method such as, but not limited to, hauling through corridors or butt extraction, and	
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			a. any <i>discharge</i>* resulting from the activity must not, after <i>reasonable mixing</i>, breach the <i>water</i>* quality standards for change in visual clarity identified for that <i>waterbody</i>* set out in <i>RP-SCHED5</i>, and b. the activity must not occur in a <i>waterbody</i>* with a Trout Spawning Value identified in <i>RP-SCHED2</i> during the trout spawning season (1 May to 30 September inclusive), and c. the activity must not occur in a <i>waterbody</i>* greater than 5 m in width, and d. the activity must not occur in an area listed in (2)(c). 10. Harvesting must be planned and carried out so as to minimise the amount of <i>slash</i>* <i>discharging</i>^A into any area listed in (2)(a) and (b) and entering any area listed in (2)(c). 11. <i>Slash</i>* must be removed from within areas listed in (2)(a) where it is blocking <i>river</i>* flow, or is diverting <i>river</i>* flow and causing bank erosion. 12. <i>Slash</i>* associated with landing <i>sites</i>* and processing <i>sites</i>* must be placed on stable ground and contained to prevent accumulated slash from causing erosion or <i>land</i>* instability. 13. The use of mobile machinery in or on the <i>bed</i>* of a <i>river</i>* with a <i>RP-SCHED2</i> Value of Trout Spawning in a manner that disturbs the <i>bed</i>* of the active flowing channel must not take place during the trout spawning season (1 May to 30 September inclusive). 14. The use of mobile machinery in or on the <i>bed</i>* of a <i>river</i>* with a <i>RP-SCHED2</i> Value of Whitebait Migration in a manner that disturbs the <i>bed</i>* of the active flowing channel must not take place 15 August to 30 November (inclusive).	
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			15. The activity must be undertaken in accordance with an <i>Erosion and Sediment Control Plan</i>* which must be submitted to the Regional Council upon request. 16. Any <i>discharge</i>* resulting from the activity must not, after <i>reasonable mixing</i>, breach the <i>water</i>* quality standards for change in visual clarity identified for that <i>waterbody</i>* set out in RP-SCHED5. 17. Regional Council must be notified at least 48 hours prior to the activity commencing.	
LF-LAND-R3 Plantation Forestry*	In addition to the regulations contained in the NES-PF, any <i>plantation forestry</i>* (including ancillary activities covered in the NES-PF) pursuant to s9(2) RMA, and, as an <i>ancillary activity</i>*, any: 1. disturbance of the <i>bed</i>* of a <i>river</i>* or <i>lake</i>* pursuant to s13(1) RMA by <i>plantation forestry</i>*, or 2. diversion of <i>water</i>* pursuant to s14(2) RMA on the <i>land</i>* (but not within a <i>river</i>*) where the <i>plantation forestry</i>* is undertaken, or <i>discharge</i>* of sediment or <i>slash</i>* into <i>water</i>* or onto or into <i>land</i>* that may enter <i>water</i>* pursuant to s15(1) or 15(2A) RMA resulting from the <i>plantation forestry</i>*.	Permitted	1. The activity (including afforestation, harvesting, earthworks or <i>forestry</i> quarrying, must not take place on <i>land</i>* that is within a <i>coastal foredune</i>*. 2. Any earthworks and the formation of any new <i>track</i>* must not occur on <i>land</i>* that is in, or within 5 m of a <i>rare habitat</i>*, <i>threatened habitat</i>* or <i>at-risk habitat</i>*. 3. Any new planting of <i>forestry</i>* trees and associated formation of any new <i>track</i>* or earthworks must not occur on <i>land</i>* that is in, or within, 10 m of <i>wetland</i>* habitat types (including <i>lakes</i>*) as defined in RP-SCHED6. 4. Felled vegetation must be felled away from not be dragged through a <i>rare habitat</i>*, <i>threatened habitat</i>* or <i>at-risk habitat</i>*. 5. Harvesting must be planned and carried out so as to minimise the amount of <i>slash</i>* entering any <i>rare habitat</i>*, <i>threatened habitat</i>* or <i>at-risk habitat</i>*. 6. Any <i>discharge</i>* resulting from the activity (including planting, harvesting, earthworks and <i>forestry</i>* quarrying) must not, after reasonable mixing, breach the <i>water</i>* quality standards for	

			change in visual clarity identified for that <i>water body</i>* set out in RP-SCHED6. 7. If any <i>rare habitat</i>*, <i>threatened habitat</i>* or <i>at-risk habitat</i>* is present within 5 m of an area of <i>plantation forestry</i>* prior to undertaking harvesting an <i>Operational Plan</i>*, detailing measures taken to avoid or mitigate adverse <i>effects</i>* on these areas, must be prepared and submitted to the Regional Council at least 48 hours prior to harvesting commencing and the <i>Operational Plan</i>* must be complied with. The use of mobile machinery in or on the <i>bed</i>* of a <i>river</i>* with a RP-SCHED2 Value of Whitebait Migration in a manner that disturbs the <i>bed</i>* of the active flowing channel must not take place during 15 August and 30 November (inclusive).	
LF-LAND-R4 Cultivation*	Except as regulated by RP-LF-LAND-R7, RP-ECO-R1 and RP-ECO-R2, any <i>cultivation</i>* and, as an <i>ancillary activity</i>* <i>land disturbance</i>* for the purposes of constructing erosion and sediment control methods to minimise sediment run-off into <i>water</i>[^] pursuant to s9(2) RMA And, as an <i>ancillary activity</i>*: 1. diversion of <i>water</i>* pursuant to s14(2) RMA on the <i>land</i>* where the <i>cultivation</i>* is undertaken, or 2. <i>discharge</i>* of sediment into <i>water</i>[^] pursuant to s15(1) RMA resulting from the <i>cultivation</i>* or, as an <i>ancillary activity</i>* erosion and sediment control methods to minimise sediment run-off into <i>water</i>[^].	Permitted	1. The activity must not take place on <i>land</i>* that is within a <i>coastal foredune</i>*. 2. Bunding, silt traps, interception drains or other alternative methods to minimise sediment run-off to <i>water</i>* must be installed prior to and maintained during <i>cultivation</i>*. 3. Any <i>discharge</i>* of sediment into <i>water</i>* as an <i>ancillary activity</i>* must not, after reasonable mixing, cause the receiving <i>waterbody</i>* to breach the water quality standards for visual clarity set out in RP-SCHED5 for that <i>waterbody</i>*. 4. For vegetable crops listed within the Commodity Levies (Vegetables and Fruit) Order 2007 a paddock assessment must be undertaken in accordance with the Code of Practice for Commercial Vegetable Growing in the Horizons	

			Region (Horticulture New Zealand) Version 2010/2. 5. The activity must not occur on <i>land</i>* that is in, or within 5 m of: a. the <i>bed</i>* of a <i>river</i>* that is permanently flowing, b. the <i>bed</i>* of a <i>river</i>* that is not permanently flowing and has an <i>active bed</i>* width greater than 1 m, c. the <i>bed</i>* of a <i>lake</i>*. 6. The activity must not occur on <i>land</i>* that is in, or within 10 m of: a. A <i>wetland</i>* as identified in RP-SCHED6, b. Sites valued for Trout Spawning as identified in RP-SCHED2, c. Sites of Significance - Aquatic as identified in RP-SCHED2. Advice Note: Examples of alternative methods for minimising sediment run-off can be found in the Code of Practice for Commercial Vegetable Growing in the Horizons Region (Horticulture New Zealand).	
LF-LAND-R5 <i>Vegetation Clearance</i>*	Except as regulated by RP-LF-LAND-R7, RP-ECO-R1 and RP-ECO-R2, any <i>vegetation clearance</i>* pursuant to s9(2) RMA and, as an <i>ancillary activity</i>*, any:	Permitted	1. The activity must not take place on <i>land</i>[^] that is within a <i>coastal foredune</i>*. 2. Any <i>discharge</i>* of sediment into <i>water</i>* as an <i>ancillary activity</i>* must not, after reasonable mixing, cause the receiving <i>waterbody</i>* to breach	

	1. diversion of <i>water*</i> pursuant to s14(2) RMA on the <i>land*</i> where the <i>vegetation clearance*</i> is undertaken, 2. <i>discharge*</i> of sediment into <i>water*</i> pursuant to s15(1) RMA resulting from the <i>vegetation clearance</i>.		the water quality standards for visual clarity set out in RP-SCHED5 for that <i>waterbody*</i>. 3. The activity must not occur on <i>land*</i> that is in, or within 5 m of: a. the <i>bed*</i> of a <i>river*</i> that is permanently flowing b. the <i>bed*</i> of a <i>river*</i> that is not permanently flowing and has an <i>active bed*</i> width greater than 1 m c. the <i>bed*</i> of a <i>lake*</i>. 4. The activity must not occur on <i>land*</i> that is in, or within 10 m of: a. A <i>wetland*</i> as identified in RP-SCHED6 b. Sites valued for Trout Spawning as identified in RP-SCHED2	
LF- LAND-R6 Large-scale <i>land disturbance*</i>, including earthworks	Except as regulated by RP-LF-LAND-R7, RP-ECO-R1 and RP-ECO-R2, any <i>land disturbance*</i> pursuant to s9(2) RMA of a total area greater than 2500 m² per <i>property*</i> per 12-month period and, as an <i>ancillary activity*</i>, any: 1. diversion of <i>water*</i> pursuant to s14(2) RMA on the <i>land*</i> where the <i>land disturbance*</i> is undertaken, or 2. <i>discharge*</i> of sediment into <i>water*</i> pursuant to s15(1) RMA resulting from the <i>land disturbance*</i>.	Controlled	1. The activity must not take place on <i>land*</i> that is within a <i>coastal foredune*</i>. 2. The activity must be undertaken in accordance with an <i>Erosion and Sediment Control Plan*</i>. 3. Any <i>discharge*</i> of sediment into <i>water*</i> must not, after <i>reasonable mixing</i>, cause the receiving <i>waterbody*</i> to breach the <i>water*</i> quality standards for visual clarity set out in RP-SCHED5 for that <i>waterbody*</i>. 4. The activity must not occur on <i>land*</i> that is in, or within 5 m of: a. the <i>bed*</i> of a <i>river*</i> that is permanently flowing, b. the <i>bed*</i> of a <i>river*</i> that is not permanently flowing -and has an <i>active bed*</i> width greater than 1 m,	Control is reserved over: 1. the location, nature, scale, timing and duration of the activity 2. Additional content of and the standard to which the <i>Erosion and Sediment Control Plan*</i> must be prepared, the implementation of the plan, and the timing of when it must be prepared and submitted 3. the <i>effects*</i> of the activity and associated sediment run-off on soil conservation, surface <i>water*</i> quality and aquatic ecology and the methods to be taken to avoid, remedy or mitigate them 4. the provision of greater setback distances from <i>waterbodies*</i> than

			c. the <i>bed</i>* of a <i>lake</i>*. 5. The activity must not occur on <i>land</i>* that is in, or within 10 m of: a. A <i>wetland</i>* as identified in RP-SCHED6, b. Sites valued for Trout Spawning as identified in RP-SCHED2, c. Sites of Significance - Aquatic as identified in RP-SCHED2.	those specified under conditions (4) and (5) to provide greater protection to a <i>waterbody</i>* if required 5. duration of consent 6. review of consent <i>conditions</i>[^] 7. compliance monitoring 8. the matters in RP-LF-LW-P12. <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). Advice Note: Examples of alternative methods to avoid, remedy or mitigate sediment run-off can be found in chapters 12-24 of the “Erosion and Sediment Control Guidelines for the Wellington Region” (September 2002).
LF-LAND-R7 Specified vegetation clearance*, land disturbance* or cultivation* in a Hill Country Erosion Management Site*	Pursuant to s9(2) RMA, except as regulated by RP-ECO-R1 and RP-ECO-R2, any: 1. <i>land disturbance</i>* of more than 100 m² per <i>property</i>* per 12-month period, or 2. <i>vegetation clearance</i>* of 1 ha or greater per <i>property</i>* per 12-month period where the age of the vegetation in the area to	Restricted Discretionary	1. The activity must not take place on <i>land</i>* that is within a <i>coastal foredune</i>*. 2. The activity must not occur on <i>land</i>* that is in, or within 10 m of: a. the <i>bed</i>* of a <i>river</i>* that is permanently flowing,	Discretion is restricted to: 1. the location, nature, scale, timing and duration of the activity, 2. <i>effects</i>* of the activity and associated sediment run-off on soil conservation, surface <i>water</i>* quality and aquatic ecology and

	be cleared is greater than seven years, or 3. <i>cultivation*</i>, undertaken within a <i>Hill Country Erosion Management Site*</i> and any ancillary: 1. diversion of <i>water*</i> pursuant to s14(2) RMA on the <i>land*</i> where the <i>vegetation clearance*</i>, <i>land disturbance*</i> or <i>cultivation*</i> is undertaken, or 2. <i>discharge*</i> of sediment into <i>water*</i> pursuant to s15(1) RMA resulting from the <i>vegetation clearance*</i>, <i>land disturbance*</i> or <i>cultivation*</i>.		b. the <i>bed*</i> of a <i>river*</i> that is not permanently flowing and has an <i>active bed*</i> width greater than 1 m, c. the <i>bed*</i> of a <i>lake*</i>, d. a <i>wetland</i>[^] as identified in RP-SCHED6, e. sites valued for Trout Spawning as identified in RP-SCHED2, f. Sites of Significance - Aquatic as identified in RP-SCHED2.	the methods to be taken to avoid, remedy or mitigate them, 3. the requirement to provide an <i>Erosion and Sediment Control Plan*</i>, the content of and standard to which the plan must be prepared, the implementation of the plan, and the timing of when it must be prepared and submitted, 4. the provision of greater setback distances from <i>waterbodies*</i> than those specified under condition (2) to provide greater protection to a <i>waterbody*</i> if required, 5. the extent of non-compliance with the <i>water quality target*</i> for visual clarity set out in RP-SCHED5, 6. duration of consent, 7. review of consent <i>conditions</i>[^], 8. compliance monitoring, 9. the matters in RP-LF-LW-P12. <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). Advice Note: Examples of alternative methods to avoid, remedy or mitigate sediment run-off can be found in:
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				1. Chapters 12-24 of the Erosion and Sediment Control Guidelines for the Wellington Region” (September 2002, and 2. The Code of Practice for Commercial Vegetable Growing in the Horizons Region (Horticulture New Zealand).
LF-LAND-R8 <i>Vegetation clearance*, land disturbance*, cultivation* or forestry* that does not comply with RP-LF-LAND-R1 to RP-LF-LAND-R7</i>	Except as regulated by RP-ECO-R1 and RP-ECO-R2, any <i>vegetation clearance*</i>, <i>land disturbance*</i>, <i>cultivation*</i> or <i>forestry*</i> pursuant to s9(2) RMA that does not meet the <i>conditions</i>[^], standards or terms of RP-LF-LAND-R1, RP-LF-LAND-R2, RP-LF-LAND-R3, RP-LF-LAND-R4, RP-LF-LAND-R5, RP-LF-LAND-R6 or RP-LF-LAND-R7 and as an <i>ancillary activity*</i>, any: 1. disturbance of the <i>bed*</i> of a <i>river*</i> or <i>lake*</i> by <i>forestry*</i> authorised by those <i>rules</i>[^] pursuant to s13(1) RMA 2. diversion of <i>water*</i> authorised by those <i>rules</i>[^] pursuant to s14(2) RMA, or <i>discharge*</i> of sediment or <i>slash*</i> authorised by those <i>rules</i>[^] pursuant to s15(1) RMA.	Discretionary		

LF – WETL – *Wetlands**

LF-WETL-P3: *Natural inland wetlands**

The loss of extent of natural inland wetlands is avoided, their values are protected, and their restoration is promoted, except where:

1. the loss of extent or values arises from any of the following:
 - a. the customary harvest of food or resources undertaken in accordance with tikanga Māori
 - b. wetland maintenance, restoration, or biosecurity (as defined in the National Policy Statement for Freshwater Management)
 - c. scientific research
 - d. the sustainable harvest of sphagnum moss
 - e. the construction or maintenance of wetland utility structures (as defined in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020)
 - f. the maintenance or operation of specified infrastructure, or other infrastructure (as defined in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020)
 - g. natural hazard works (as defined in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020); or
2. the Regional Council is satisfied that:
 - a. the activity is necessary for the construction or upgrade of specified infrastructure; and
 - b. the specified infrastructure will provide significant national or regional benefits; and
 - c. there is a functional need for the specified infrastructure in that location; and
 - d. the effects of the activity are managed through applying the effects management hierarchy; or
3. the Regional Council is satisfied that that:
 - a. the activity is necessary for the purpose of urban development that contributes to a well-functioning urban environment (as defined in the National Policy Statement on Urban Development); and
 - b. the urban development will provide significant national, regional or district benefits; and
 - c. the activity occurs on land identified for urban development in operative provisions of a regional or district plan; and
 - d. the activity does not occur on land that is zoned in a district plan as general rural, rural production, or rural lifestyle; and
 - e. there is either no practicable alternative location for the activity within the area of the development, or every other practicable location in the area of the development would have equal or greater adverse effects on a natural inland wetland; and
 - f. the effects of the activity will be managed through applying the effects management hierarchy; or

4. the Regional Council is satisfied that:
 - a. the activity is necessary for the purpose of quarrying activities; and
 - b. the extraction of the aggregate will provide significant national or regional benefits; and
 - c. there is a functional need for the activity to be done in that location; and
 - d. the effects of the activity will be managed through applying the effects management hierarchy; or

5. the Regional Council is satisfied that:
 - a. the activity is necessary for the purpose of:
 - i. the extraction of minerals (other than coal) and ancillary activities; or
 - ii. the extraction of coal and ancillary activities as part of the operation or extension of an existing coal mine; and
 - b. the extraction of the mineral will provide significant national or regional benefits; and
 - c. there is a functional need for the activity to be done in that location; and
 - d. the effects of the activity will be managed through applying the effects management hierarchy; or

6. the Regional Council is satisfied that:
 - a. the activity is necessary for the purpose of constructing or operating a new or existing landfill or cleanfill area; and
 - b. the landfill or cleanfill area:
 - i. will provide significant national or regional benefits; or
 - ii. is required to support urban development as referred to in paragraph (3); or
 - iii. is required to support the extraction of aggregates as referred to in paragraph (4); or
 - iv. is required to support the extraction of minerals as referred to in paragraph (5); and
 - c. there is either no practicable alternative location in the region, or every other practicable alternative location in the region would have equal or greater adverse effects on a natural inland wetland; and
 - d. the effects of the activity will be managed through applying the effects management hierarchy.

LF – LW – *Discharges* to land* and water**

Objectives

LF-LW-O2: Management of *discharges* to land* and water** and *land** uses affecting groundwater and surface water quality

The management of *discharges** onto or into *land** (including those that enter *water**) or directly into *water** and *land** use activities affecting groundwater and surface *water** quality in a manner that:

1. safeguards the life supporting capacity of *water** and recognises and provides for the Values and management objectives in RP-SCHED2,
2. provides for the objectives and policies of RPS-LF as they relate to surface *water** and groundwater quality, and
3. where a *discharge** is onto or into *land**, avoids, remedies or mitigates adverse *effects** on surface *water** or groundwater.

Policies

LF-LW-P4: Consent decision-making for *discharges* to water**

When making decisions on *resource consent^* applications, and setting consent *conditions^*, for *discharges** of *water** or *contaminants** into *water**, the Regional Council must specifically consider:

1. the objectives and RPS-LF-FW-P5 to RPS-LF-FW-P9 and RPS-LF-FW-P13 of RPS-LF, and have regard to:
2. avoiding *discharges** which contain any persistent *contaminants** that are likely to accumulate in a *waterbody** or its *bed**,
3. the appropriateness of adopting the *best practicable option** to prevent or minimise adverse *effects** in circumstances where:
 - a. it is difficult to establish *discharge** parameters for a particular *discharge** that give effect to the management approaches for *water** quality and *discharges** set out in RPS-LF, or
 - b. the potential adverse *effects** are likely to be minor, and the costs associated with adopting the *best practicable option** are small in comparison to the costs of investigating the likely *effects** on *land** and *water**, and

4. the objectives and policies of RPS-RMIA, RPS-EIT, RPS-ECO, RPS-HCV, RPS-NATC, RPS-NFL, RPS-HAZ, and RP-IP to the extent that they are relevant to the *discharge*.*.

LF-LW-P5: Consent decision-making for *discharges** to *land**

When making decisions on *resource consent*^ applications, and setting consent *conditions*^, for *discharges** of *contaminants** onto or into *land** the Regional Council must have regard to:

1. the objectives and policies of RPS-LF regarding the management of groundwater quality and *discharges**,
2. where the *discharge** may enter surface *water** or have an adverse *effect** on surface *water** quality, the degree of compliance with the approach for managing surface *water** quality set out in RPS-LF,
3. avoiding as far as reasonably practicable any adverse *effects** on any sensitive receiving *environment** or potentially incompatible *land** uses, in particular any residential buildings, *educational facilities**, churches, marae, public areas, *infrastructure*^ and other physical resources of regional or national importance identified in RPS-EIT-P1, *wetlands**, *surface water bodies** and the *coastal marine area*^,
4. the appropriateness of adopting the *best practicable option** to prevent or minimise adverse *effects** in circumstances where:
 - a. it is difficult to establish *discharge** parameters for a particular *discharge** that give effect to the management approaches for *water** quality and *discharges** set out in RPS-LF,
 - b. the potential adverse *effects** are likely to be minor, and the costs associated with adopting the *best practicable option** are small in comparison to the costs of investigating the likely *effects** on *land** and *water**,
5. avoiding *discharges** which contain any persistent *contaminants** that are likely to accumulate in the soil or groundwater, and
6. the objectives and policies of RPS-RMIA, RPS-EIT, RPS-ECO, RPS-HCV, RPS-NATC, RPS-NFL, RPS-HAZ, and RP-IP to the extent that they are relevant to the *discharge**.

LF-LW-P6: Industry-based standards

The Regional Council 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 address the matters in RP-LF-LW-P4, RP-LF-LW-P5, RP-LF-LW-P7 and RP-LF-LW-P8.

LF-LW-P7: Options for *discharges** to surface *water** and *land**

When applying for consents and making decisions on consent applications for *discharges** of *contaminants** into *water** or onto or into *land**, the opportunity to utilise alternative *discharge** options, or a mix of *discharge** regimes, for the purpose of mitigating adverse *effects**, applying the *best practicable option*, must be considered, including but not limited to:

1. *discharging* contaminants** onto or into *land** as an alternative to *discharging* contaminants** into *water**,
2. withholding from *discharging* contaminants** into surface *water** at times of low flow, and
3. adopting different treatment and *discharge** options for different receiving *environments** or at different times (including different flow regimes or levels in surface *waterbodies**).

LF-LW-P8: Management of intensive farming *land** uses

In order to give effect to RPS-LF-FW-P11 and RPS-LF-FW-P12, intensive farming *land** use activities affecting groundwater and surface *water** quality must be managed in the following manner:

1. The following land uses have been identified as intensive farming *land** uses:
 - a. *Dairy farming**
 - b. *Commercial vegetable growing**
 - c. *Cropping**
 - d. *Intensive sheep and beef**
2. The intensive farming *land** uses identified in (1) must be regulated where:
 - a. They are existing intensive farming *land** uses, in the targeted *Water Management Sub-areas** identified in Table 11.
 - b. They are new (ie., established after the Plan has legal effect¹) intensive farming *land** uses, in all *Water Management Sub-areas** in the Region.
3. Nitrogen leaching maximums have been established in Table 12.
4. Existing intensive farming *land** uses regulated in accordance with (2)(a) 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 12, unless the circumstances in RP-LF-LW-P9 apply.

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.

5. New intensive farming *land** uses regulated in accordance with (2)(b) 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 12.
6. Intensive farming *land** uses regulated in accordance with (2) must exclude cattle from:
 - a. A *wetland** or *lake** that is a *rare habitat**, *threatened habitat** or *at-risk habitat**.
 - b. Any *river** that is permanently flowing or has an *active bed** width greater than 1 metre.
7. 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**.

LF-LW-P9: 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:

1. Ensure the nitrogen leaching from the *land** is managed in accordance with RP-LF-LW-P8.
2. An exception may be made to (1) for existing intensive farming *land** uses in the following circumstances:
 - a. 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
 - b. 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.
3. 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:
 - a. Good management practices to minimise the loss of nitrogen, phosphorus, faecal contamination and sediment are implemented.
 - b. 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.
4. Ensure that cattle are excluded from surface water in accordance with RP-LF-LW-P8 (6) and (7) except where landscape or geographical constraints make stock exclusion impractical and the effects of cattle stock movements are avoided, remedied or mitigated. In all cases any unavoidable losses of nitrogen, phosphorus, faecal contamination and sediment are 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.

LF-LW-P10: Management of *discharges* of domestic wastewater**

When making decisions on *resource consent^* applications, and setting consent *conditions^*, for on-site *discharges* of domestic wastewater**, the Regional Council must generally ensure that the *discharge** is in accordance with the Manual for On-site Wastewater Systems Design and Management (Horizons Regional Council 2010).

For *discharges** that are not in accordance with the Manual for On-site Wastewater Systems Design and Management (Horizons Regional Council 2010) the Regional Council must make decisions on *resource consent^* applications, and set consent *conditions^*, for on-site *discharges* of domestic wastewater**, to ensure that:

1. the *site** is suitable for the intended on-site *wastewater** management system,
2. the *discharge** does not result in actual or potential contamination of:
 - a. groundwater at any point of abstraction utilised for irrigation, stock drinking *water** or domestic drinking *water**,
 - b. surface *waterbodies**,
 - c. stormwater drains,
 - d. *artificial watercourses**, or
 - e. neighbouring *properties**,
3. the *discharge** does not constitute a public health threat,
4. the *discharge** does not cause any offensive or objectionable odour beyond the *property** boundary, and
5. a sufficient area of *land** is set aside as a reserve disposal area.

LF-LW-P11: Monitoring requirements for consent holders

Point source *discharges** of *contaminants** to *water** must generally be subject to the following monitoring requirements:

1. the regular monitoring of *discharge** volumes on *discharges** smaller than 100 m³/day and making the records available to the Regional Council on request,
2. the installation of a pulse-count capable meter in order to monitor the volume *discharged** for *discharges** of 100 m³/day or greater,
3. the installation of a Regional Council compatible telemetry system on *discharges** of 300 m³/day or greater, and
4. monitoring and reporting on the quality of the *discharge** at the point of *discharge** before it enters surface *water** and the quality of the receiving *water** upstream and downstream of the point of *discharge** (after *reasonable mixing**) may also be required. This must align with the Regional Council's environmental monitoring programme where reasonably practicable to enable cumulative impacts to be measured.

LF-LW-P12: Consent decision making requirements from the National Policy Statement for Freshwater Management

1. This policy applies to any application for the following *discharges** (including a diffuse *discharge**^ by any person or animal):
 - a. a new *discharge**; or
 - b. a change or increase in any *discharge** –

of any *contaminant** into *fresh water**, or onto or into *land** in circumstances that may result in that *contaminant** (or, as a result of any natural process from the *discharge** of that *contaminant**, any other *contaminant**) entering *fresh water**.
2. When considering any application for a *discharge** the Regional Council must have regard to the following matters:
 - a. the extent to which the *discharge** would avoid contamination that will have an adverse *effect** on the life-supporting capacity of *fresh water** including on any ecosystem associated with *fresh water**; and
 - b. the extent to which it is feasible and dependable that any more than minor adverse *effect** on *fresh water**, and on any ecosystem associated with *fresh water**, resulting from the *discharge** would be avoided.

This clause of the policy does not apply to any application for consent first lodged before the National Policy Statement for Freshwater Management 2011 took effect on 1 July 2011.

3. When considering any application for a *discharge** the Regional Council must have regard to the following matters:
 - a. the extent to which the *discharge** would avoid contamination that will have an adverse *effect** on the health of people and communities as affected by their secondary contact with *fresh water**; and
 - b. the extent to which it is feasible and dependable that any more than minor adverse *effect** on the health of people and communities as affected by their secondary contact with *fresh water**^ resulting from the *discharge**^ would be avoided.

This clause of the policy does not apply to any application for consent first lodged before the National Policy Statement for Freshwater Management 2014 took effect on 4 July 2014.

Rules – agricultural activities

The requirements specified in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 also apply, as rules, in addition to the following rules. One Plan users must refer to the Regulations and they should be read in conjunction with the following rules. Where there is conflict between the provisions of the Regulations and any of the following rules, the more stringent provision will apply.

Table 11 sets out the target *Water Management Sub-areas** where management of existing intensive farming *land*[^] use activities must be specifically controlled.

Table 11 - Targeted *Water Management Sub-areas**

Catchment	<i>Water Management Sub-area</i> *	Date the Rules of the Plan have legal effect ² in relation to RP-LF-LW-R14
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 Mākāhahi Mana_8d	1 July 2015
Other coastal lakes	Northern Manawatū Lakes West_6 Kaitoke Lakes West_4 Southern Whanganui Lakes West_5	1 July 2015
Coastal Rangitikei	Coastal Rangitikei Rang_4	1 July 2015
Lake Horowhenua	Lake Horowhenua Hoki_1a Hokio Hoki_1b	1 July 2015
Upper Manawatū above Hopelands	Upper Manawatū Mana_1a Mangatewainui Mana_1b Mangatoro Mana_1c Weber-Tamaki Mana_2a Mangatera Mana_2b Upper Tamaki Mana_3 Upper Kūmeti Mana_4	1 July 2016

² 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	Water Management Sub-area*	Date the Rules of the Plan have legal effect ² in relation to RP-LF-LW-R14
	Tamaki-Hopelands Mana_5a Lower Tamaki Mana_5b Lower Kūmeti Mana_5c Ōruakeretaki Mana_5d Raparapawai Mana_5e	
Manawatū above gorge	Hopelands-Tīraumea Mana_6 Upper Gorge Mana_9a Mangaatua Mana_9c	1 July 2016

Table 12 sets out the *cumulative nitrogen leaching maximum** for the *land** used for intensive farming *land** use activities within each specified *land use capability class**.

Table 12 - Cumulative nitrogen leaching maximum* by Land Use Capability Class*

Period (from the year that the rule has legal effect ³)	LUC* I	LUC* II	LUC* III	LUC* IV	LUC* V	LUC* VI	LUC* VII	LUC* VIII
Year 1	30	27	24	18	16	15	8	2
Year 5	27	25	21	16	13	10	6	2
Year 10	26	22	19	14	13	10	6	2
Year 20	25	21	18	13	12	10	6	2

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
LF-LW-R9 Fertiliser*	The <i>discharge*</i> of <i>fertiliser*</i> onto or into <i>land*</i> pursuant to ss15(1) or 15(2A) RMA and, as an <i>ancillary activity*</i> , any <i>discharge*</i> of <i>contaminants*</i> into air	Permitted	1. There must be no direct <i>discharge*</i> of <i>fertiliser*</i> , into any surface <i>waterbody*</i> or its <i>bed*</i> or artificial watercourse* other than as provided for under 2. 2. All reasonable measures must be taken to prevent:	

³ 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.

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
	pursuant to ss15(1) or 15(2A) RMA, except where the <i>discharge*</i> is undertaken in association with a use of <i>land*</i> controlled by RP-LF-LW-R14, RP-LF-LW-R15, RP-LF-LW-R17 and RP-LF-LW-R18.		a. any <i>discharge*</i> of <i>fertiliser*</i>, within the <i>bed*</i> of a <i>river*</i> that is permanently flowing or has an active <i>bed*</i> width greater than 2 m, or any <i>lake*</i> or <i>wetland*</i> that has an area of 1 ha or more b. any <i>discharge*</i> into any rare habitat*, threatened habitat* or at-risk habitat*, except for the purpose of enhancing such habitats. Under condition (2) “reasonable measures” includes the use of GPS technology. 3. For <i>production land*</i> the <i>fertiliser*</i>, must be <i>discharged*</i> in accordance with the Code of Practice for Nutrient Management (New Zealand Fertiliser Manufacturers’ Research Association, 2007). 4. Where nitrogen <i>fertiliser*</i> is <i>discharged*</i> onto <i>land*</i> in excess of 60 kgN/ha/year averaged across the whole farm area or in excess of an average rate of 150 kgN/ha/year on any application area a nutrient budget undertaken using the OVERSEER® model, which takes into account all other sources of nitrogen, and covers and identifies the whole farm area including details of individual blocks and which is designed to minimise nitrogen leaching rates, must be used to plan and carry out the <i>fertiliser*</i> <i>discharge*</i> and be made available to the Regional Council upon request. If a <i>nutrient management plan*</i> is required under RP-LF-LW-R14, RP-LF-LW-R15, RP-LF-LW-R17 and RP-LF-LW-R18, then the nutrient budget required by this condition[^] must be consistent with it and the activity must be carried out in accordance with it. 5. The <i>discharge*</i> must not result in any offensive or objectionable odour or <i>fertiliser*</i> drift beyond the <i>property*</i> boundary.	

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
LF-LW-R10 Stock feed including feedpads*	The <i>discharge*</i> of <i>contaminants*</i> onto or into <i>land*</i> pursuant to ss15(1) or 15(2A) RMA from: 1. the preparation, storage, use or transportation of stock feed on <i>production land</i> [^] , or 2. the use of a <i>feedpad*</i> 3. and, as an <i>ancillary activity*</i> , any <i>discharge*</i> of <i>contaminants*</i> into air pursuant to ss15(1) or 15(2A) RMA, except where the <i>discharge*</i> is undertaken in association with a use of <i>land*</i> controlled by RP-LF-LW-R14, RP-LF-LW-R15, RP-LF-LW-R17 and RP-LF-LW-R18.	Permitted	1. All silage (excluding maize silage) storage pits that have an area greater than 500 m ² and all <i>feedpads*</i> , must be sealed to restrict seepage of <i>contaminants*</i> . The permeability of the sealing layer must not exceed 1x10 ⁻⁹ m/s. 2. All areas used for storing stock feed, for <i>feedpads*</i> or for otherwise feeding stock (including feeding silage) must be located and managed in a manner that ensures at all times when such areas are in use: a. run-off from the area into surface <i>water*</i> or <i>artificial watercourses*</i> , is prevented b. run-off from the surrounding catchment is prevented from entering the area. 3. All areas used for storing stock feed, for <i>feedpads*</i> or for otherwise feeding stock (including feeding silage) must comply with the following separation distances: a. 50 m from <i>rare habitats*</i> , <i>threatened habitats*</i> and <i>at-risk habitats*</i> , b. 20 m from <i>bores*</i> , surface <i>waterbodies*</i> , <i>artificial watercourses*</i> , and the <i>coastal marine area</i> [^] , and c. 50 m from any <i>historic heritage*</i> identified in any <i>district plan</i> [^] or <i>regional plan</i> [^] . 4. All <i>animal effluent*</i> collected from <i>feedpads*</i> must be treated and <i>discharged*</i> in accordance with RP-LF-LW-R16. The <i>discharge*</i> must not result in any offensive or objectionable odour or <i>dust*</i> beyond the <i>property*</i> boundary.	
LF-LW-R11 Discharges* of grade Aa biosolids* and	The <i>discharge*</i> of <i>grade Aa biosolids*</i> or <i>compost*</i> onto or into <i>production land</i> [^] pursuant to ss15(1) or 15(2A) RMA, and,	Permitted	1. There must be no direct <i>discharge*</i> or run-off into any surface <i>waterbody*</i> or its <i>bed*</i> or <i>artificial watercourse*</i> .	

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
compost* to production land*	as an <i>ancillary activity*</i> , any <i>discharge*</i> of <i>contaminants*</i> into air pursuant to ss15(1) or 15(2A) RMA, except where the <i>discharge*</i> is undertaken in association with a use of <i>land*</i> controlled by RP-LF-LW-R14, RP-LF-LW-R15, RP-LF-LW-R17 and RP-LF-LW-R18.		2. For <i>compost*</i> the material must not contain any human or animal pathogens, or any <i>hazardous substances*</i>. 3. For <i>grade Aa biosolids*</i> the <i>discharge*</i> must comply with the requirements for <i>grade Aa biosolids*</i> as included with Chapters 4 and 7 of Volume 1 and Chapters 8 (including monitoring requirements) and 9 of Volume 2 of the Guidelines for the Safe Application of Biosolids to Land in New Zealand (New Zealand Water and Waste Association, August 2003). 4. The <i>discharge*</i> must comply with the following separation distances: a. 50 m from <i>rare habitats*</i>, <i>threatened habitats*</i> and <i>at-risk habitats*</i> b. 20 m from <i>bores*</i>, <i>surface waterbodies*</i>, <i>artificial watercourses*</i> and the <i>coastal marine area</i>[^] c. 50 m from any <i>historic heritage*</i> identified in any <i>district plan</i>[^] or <i>regional plan</i>[^]. 5. A nutrient budget undertaken using the OVERSEER[®] model, which takes into account all other sources of nitrogen and which is designed to minimise nitrogen leaching rates, must be used to plan and carry out the <i>discharge*</i> of the <i>grade Aa biosolids*</i> or <i>compost*</i>. If a <i>nutrient management plan*</i> is required under RP-LF-LW-R14, RP-LF-LW-R15, RP-LF-LW-R17 and RP-LF-LW-R18 then the nutrient budget required by this <i>condition</i>[^] must be consistent with it and the activity must be carried out in accordance with it. 6. The <i>discharge*</i> must not result in any offensive or objectionable odour or <i>dust*</i> beyond the <i>property*</i> boundary. 7. The discharger must keep the following records:	

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
			a. a daily record of the <i>discharge*</i> volume and location b. a monthly (or more frequent) analysis of the nitrogen concentration of a <i>discharge*</i> sample and make these records available to the Regional Council upon request.	
LF-LW-R12 <i>Discharges* of poultry farm litter* or pig farm litter* and associated temporary stockpiling</i>	The <i>discharge*</i> of <i>poultry farm litter*</i> or <i>pig farm litter*</i> and associated stockpiling onto or into <i>production land^</i> pursuant to ss15(1) or 15(2A) RMA and, as an <i>ancillary activity*</i> , any <i>discharge*</i> of <i>contaminants*</i> into air pursuant to ss15(1) or 15(2A) RMA, except where the <i>discharge*</i> is undertaken in association with a use of <i>land*</i> controlled RP-LF-LW-R14, RP-LF-LW-R15, RP-LF-LW-R17 and RP-LF-LW-R18.	Permitted	1. The rate of <i>discharge*</i> must be no greater than 150 kgN/ha/year in any 12 month period and must not exceed 60 kgN/ha in any 24 hour period. 2. There must be no direct <i>discharge*</i> or run-off into any surface <i>waterbody*</i> or its <i>bed*</i> or <i>artificial watercourse*</i>. 3. The <i>discharge*</i> of <i>poultry farm litter*</i> or <i>pig farm litter*</i> and associated temporary stockpiling must comply with the following separation distances: a. 150 m from any residential buildings, public places and amenity areas where people congregate, and <i>educational facilities*</i> b. 50 m from <i>property*</i> boundaries c. 50 m from <i>rare habitats*</i>, <i>threatened habitats*</i> and <i>at-risk habitats*</i> d. 20 m from <i>bores*</i>, surface <i>waterbodies*</i>, <i>artificial watercourses*</i> and the <i>coastal marine area^</i> e. 50 m from any <i>historic heritage*</i> identified in any <i>district plan^</i> or <i>regional plan^</i>. 4. A nutrient budget undertaken using the OVERSEER® model, which takes into account all other sources of nitrogen and which is designed to minimise nitrogen leaching rates, must be used to plan and carry out the <i>discharge*</i> of <i>poultry farm litter*</i> or <i>pig farm litter*</i>. If a <i>nutrient management plan*</i> is required under RP-LF-LW-R14 RP-LF-LW-R15, RP-LF-LW-R17 and RP-	

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
			LF-LW-R18 then the nutrient budget required by this <i>condition</i>[^] must be consistent with it and the activity must be carried out in accordance with it. 5. The <i>discharge</i>[*] of <i>poultry farm litter</i>[*] or <i>pig farm litter</i>[*] and associated temporary stockpiling must not result in any offensive or objectionable odour or <i>dust</i>[*] beyond the <i>property</i>[*] boundary. 6. All areas used for temporary stockpiling must be located and managed in a manner that ensures at all times when such areas are in use: - run-off from the area into <i>water</i>[*] or an <i>artificial watercourse</i>[*] is prevented - run-off from the surrounding catchment is prevented from entering the area.	
LF-LW-R13 Offal holes and farm dumps	The <i>discharge</i> [*] of <i>contaminants</i> [*] onto or into <i>production land</i> [^] pursuant to ss15(1), 15(2) or 15(2A) RMA associated with an offal hole or farm dump, and, as an <i>ancillary activity</i> [*] , any <i>discharge</i> [*] of <i>contaminants</i> [*] into air pursuant to ss15(1) or 15(2A) RMA, except where the <i>discharge</i> [*] is undertaken in association with a use of <i>land</i> [^] controlled by RP-LF-LW-R14, RP-LF-LW-R15, RP-LF-LW-R17 and RP-LF-LW-R18.	Permitted	- Only animal carcasses, or parts thereof, and <i>waste</i>[*], which is sourced from the <i>property</i>[*] on which the offal hole or farm dump is located, can be disposed of. - The <i>waste</i>[*] must not contain any <i>hazardous substances</i>[*] or <i>sewage</i>[*]. - There must be no <i>discharge</i>[*] into any surface <i>waterbody</i>[*] or its <i>bed</i>[*] or <i>artificial watercourse</i>[*]. - The lowest point of the offal hole or farm dump must be at least 1 m above the seasonally highest <i>water</i>[*] table. - The offal hole or farm dump must comply with the following separation distances: 150 m from any residential buildings, public places and amenity areas where people congregate, <i>educational facilities</i>[*] and <i>public roads</i> 10 m from <i>property</i>[*] boundaries	

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
			c. 50 m from <i>rare habitats*</i>, <i>threatened habitats*</i> and <i>at-risk habitats*</i> d. 20 m from <i>bores*</i>, surface <i>waterbodies*</i>, <i>artificial watercourses*</i> and the <i>coastal marine area</i>[^] e. 50 m from any <i>historic heritage*</i> identified in any <i>district plan</i>[^] or <i>regional plan</i>[^]. 6. Measures must be used as necessary to minimise animal pests from entering the offal hole or farm dump. 7. There must be no offensive or objectionable odour or <i>dust*</i> beyond the <i>property*</i> boundary.	
LF-LW-R14 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: 1. <i>dairy farming*</i> 2. <i>commercial vegetable growing*</i> 3. <i>cropping*</i> 4. <i>intensive sheep and beef farming*</i> that was existing in the <i>Water Management Sub-areas*</i> listed in and from the dates specified in Table 11 and any of the following <i>discharge*</i> pursuant to ss15(1) or 15(2A) RMA associated with that intensive farming: 1. the <i>discharge*</i> of <i>fertiliser*</i> onto or into <i>land*</i> 2. the <i>discharge*</i> of <i>contaminants*</i> onto or into <i>land*</i> from	Controlled	1. A <i>nutrient management plan*</i> must be prepared for the <i>land*</i>, and provided annually to the Regional Council. 2. The activity must be undertaken in accordance with the <i>nutrient management plan*</i> prepared under (1). 3. The <i>nutrient management plan*</i> prepared under (1) must demonstrate that the nitrogen leaching loss from the activity will not exceed the <i>cumulative nitrogen leaching maximum*</i> specified in Table 12. 4. Cattle must be excluded from: a. <i>Wetlands*</i> and <i>lakes*</i> that are a <i>rare habitat*</i> or <i>threatened habitat*</i>, and b. the <i>beds*</i> of <i>rivers*</i> that are permanently flowing or have an <i>active bed*</i> width greater than 1 m. 5. <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>. 6. The <i>discharge*</i> of <i>fertiliser*</i> onto or into <i>land*</i> and, as an <i>ancillary activity*</i>, any <i>discharge*</i> of <i>contaminants*</i>	Control is reserved over: 1. the implementation of the <i>nutrient management plan*</i> 2. compliance with the <i>cumulative nitrogen leaching maximum*</i> specified in Table 12 3. the matters of control in RP-LF-LW-R19 4. avoiding, remedying or mitigating the <i>effects*</i> of odour, <i>dust*</i>, <i>fertiliser*</i> drift, or effluent drift 5. provision of information including the <i>nutrient management plan*</i> 6. duration of consent 7. review of consent <i>conditions</i>[^] 8. compliance monitoring 9. the matters in RP-LF-LW-P12. <i>Resource consent</i>[^] applications under this <i>rule</i>[^] will not be notified and written

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
	a. the preparation, storage, use or transportation of stock feed on <i>production land</i>[^] b. the use of a <i>feedpad</i>[*] 3. the <i>discharge</i>[*] of <i>grade Aa biosolids</i>[*] or <i>compost</i>[*] onto or into <i>production land</i>[^] 4. the <i>discharge</i>[*] of <i>poultry farm litter</i>[*] onto or into <i>production land</i>[^] 5. 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: a. effluent from dairy sheds and <i>feedpads</i>[*] b. effluent received from piggeries c. sludge from farm effluent ponds d. poultry farm effluent and, as an <i>ancillary activity</i>[*], any <i>discharge</i>[*] of <i>contaminants</i>[*] into air pursuant to ss15(1) or 15(2A) RMA. Where the existing intensive farming <i>land</i>[*] use is located partly on <i>land</i>[*] within one or more of the <i>water management sub-areas</i>[*] listed in Table 11 and partly on other <i>land</i>[*], this rule only applies: 1. if at least 20% of the existing intensive farming <i>land</i>[*] use is located on <i>land</i>[*] within the listed <i>water management sub-areas</i>[*]; and		into air must comply with the <i>conditions</i>[^] of RP-LF-LW-R9 7. The <i>discharge</i>[*] of <i>contaminants</i>[*] onto or into <i>land</i>[*] from: a. the preparation, storage, use or transportation of stock feed on <i>production land</i>[^], or b. the use of a <i>feedpad</i>[*] and, as an <i>ancillary activity</i>[*], any <i>discharge</i>[*] of <i>contaminants</i>[*] into air must comply with the <i>conditions</i>[^] of RP-LF-LW-R10. 8. 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 RP-LF-LW-R11. 9. 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 RP-LF-LW-R12. 10. The <i>discharge</i>[*] of <i>farm animal effluent</i>[*] onto or into <i>production land</i>[^] including: a. effluent from dairy sheds and <i>feedpads</i>[*] b. effluent received from piggeries c. sludge from farm effluent ponds d. poultry farm effluent and, as an <i>ancillary activity</i>[*], any <i>discharge</i>[*] of <i>contaminants</i>[*] into air must comply with the <i>conditions</i>[^], standards and terms of RP-LF-LW-R16.	approval of affected persons will not be required (notice of applications need not be served [^] on affected persons).

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
	2. to the portion of the existing intensive farming <i>land*</i> use that is located within the listed <i>water management sub-areas*</i> .			
LF-LW-R15 New intensive farming <i>land*</i> use activities	The use of <i>land*</i> pursuant to s9(2) RMA for any conversion to any of the following intensive farming: 1. <i>dairy farming*</i> 2. <i>commercial vegetable growing*</i> 3. <i>cropping*</i> 4. <i>intensive sheep and beef farming*</i> that occurs from the date this rule has legal effect⁴ anywhere within the Region and any of the following <i>discharges*</i> pursuant to ss15(1) or 15(2A) RMA associated with that intensive farming: 1. the <i>discharge*</i> of <i>fertiliser*</i> onto or into <i>land*</i> 2. the <i>discharge*</i> of <i>contaminants*</i> onto or into <i>land*</i> from a. the preparation, storage, use or transportation of stock feed on <i>production land</i>[^] b. the use of a <i>feedpad*</i> 3. the <i>discharge*</i> of <i>grade Aa biosolids*</i>, or <i>compost*</i> onto or into <i>production land</i>[^] 4. the <i>discharge*</i> of <i>poultry farm litter*</i> onto or into <i>production land</i>[^]	Controlled	1. A <i>nutrient management plan*</i> must be prepared for the <i>land*</i> and provided annually to the Regional Council. 2. The activity must be undertaken in accordance with the <i>nutrient management plan*</i> prepared under (1). 3. The <i>nutrient management plan*</i> prepared under (1) must demonstrate that the nitrogen leaching loss from the activity will not exceed the <i>cumulative nitrogen leaching maximum*</i> specified in Table 12. 4. Cattle must be excluded from: a. <i>wetlands*</i> and <i>lakes*</i> that are a <i>rare habitat*</i> or <i>threatened habitat*</i>, and b. the <i>beds*</i> of <i>rivers*</i> that are permanently flowing or have an <i>active bed*</i> width greater than 1 m. 5. <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>. 6. The <i>discharge*</i> of <i>fertiliser*</i> onto or into <i>land*</i> and, as an ancillary activity, any <i>discharge*</i> of <i>contaminants*</i> into air must comply with the <i>conditions</i>[^] of RP-LF-LW-R9	Control is reserved over: 1. the implementation of the <i>nutrient management plan*</i> 2. compliance with the <i>cumulative nitrogen leaching maximum*</i> specified in Table 12 3. the matters of control in RP-LF-LW-R19 4. avoiding, remedying or mitigating the <i>effects*</i> of odour, <i>dust*</i>, <i>fertiliser*</i> drift, or effluent drift 5. provision of information including the <i>nutrient management plan*</i> 6. duration of consent 7. review of consent <i>conditions</i>[^] 8. compliance monitoring 9. the matters in RP-LF-LW-P12. <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).

⁴ The rule 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.

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
	5. the <i>discharge*</i> of farm <i>animal effluent*</i> onto or into <i>production land</i>[^] including: - effluent from dairy sheds and <i>feedpads*</i> - effluent received from piggeries - sludge from farm effluent ponds - poultry farm effluent and, as an <i>ancillary activity*</i>, any <i>discharge*</i> of <i>contaminants*</i> into air pursuant to ss15(1) or 15(2A) RMA.		7. The <i>discharge*</i> of <i>contaminants*</i> onto or into <i>land*</i> from: - the preparation, storage, use or transportation of stock feed on <i>production land</i>[^], or - the use of a <i>feedpad*</i> and, as an <i>ancillary activity*</i>, any <i>discharge*</i> of <i>contaminants*</i> into air must comply with the <i>conditions</i>[^] of RP-LF-LW-R10. 8. The <i>discharge*</i> of <i>grade Aa biosolids*</i> or <i>compost*</i> onto or into <i>production land</i>[^] and, as an <i>ancillary activity*</i>, any <i>discharge*</i> of <i>contaminants*</i> into air must comply with the <i>conditions</i>[^] of RP-LF-LW-R11. 9. The <i>discharge*</i> of <i>poultry farm litter*</i> onto or into <i>production land</i>[^] and, as an <i>ancillary activity*</i>, any <i>discharge*</i> of <i>contaminants*</i> into air must comply with the <i>conditions</i>[^] of RP-LF-LW-R12 10. The <i>discharge*</i> of farm <i>animal effluent*</i> onto or into <i>production land</i>[^] including: - effluent from dairy sheds and <i>feedpads*</i> - effluent received from piggeries - sludge from farm effluent ponds - poultry farm effluent and, as an <i>ancillary activity*</i>, any <i>discharge*</i> of <i>contaminants*</i> into air must comply with the <i>conditions</i>[^], standards and terms of RP-LF-LW-R16	
LF-LW-R16 Farm animal effluent* including effluent from dairy sheds, poultry farms and piggeries	The <i>discharge*</i> of farm <i>animal effluent*</i> onto or into <i>production land</i>[^] pursuant to ss15(1) or 15(2A) RMA including: - effluent from dairy sheds and <i>feedpads*</i> - effluent from piggeries	Controlled	- There must be no direct <i>discharge*</i> or run-off of effluent into a surface <i>waterbody*</i> or its <i>bed*</i> or <i>artificial watercourse*</i>, including from effluent holding facilities. - The entire extent of effluent storage and treatment facilities (including sumps and ponds) must be sealed so as to restrict seepage of effluent where all or any	Control is reserved over: - amount of effluent per <i>discharge*</i> and frequency of <i>discharge*</i> - effluent <i>discharge*</i> volume and rate in relation to the infiltration rate and the

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
	3. sludge from farm effluent ponds 4. poultry farm effluent and, as an <i>ancillary activity</i>*, any <i>discharge</i>* of <i>contaminants</i>* into air pursuant to ss15(1) or 15(2A) RMA, except where the <i>discharge</i>* is undertaken in association with a use of <i>land</i>* controlled by RP-LF-LW-R14, RP-LF-LW-R15, RP-LF-LW-R17, and RP-LF-LW-R18.		part of the storage facility (including weeping walls, stone traps, sumps and ponds) is established or extended (including deepening) from the date the Plan is made <i>operative</i>[^]. The permeability of the sealing layer must not exceed 1×10^{-9} m/s subject to the following exceptions: - Where there are multiple ponds that make up the storage facility, but not all are being extended then only those that are being extended are required to be fully sealed, or - The establishment or extension of sumps, weeping walls or stone traps alone do not trigger a requirement for sealing of existing ponds. 3. The <i>discharge</i>* must comply with the following separation distances: - for <i>discharges</i>* of piggery effluent, 150 m from any residential buildings, public places and amenity areas where people congregate and <i>educational facilities</i>* - for other <i>discharges</i>*, 20 m from any residential buildings, public places and amenity areas where people congregate and <i>educational facilities</i>* - for all <i>discharges</i>*, 50 m from <i>rare habitats</i>*, <i>threatened habitats</i>* and <i>at-risk habitats</i>* - for all <i>discharges</i>*, 20 m from <i>bores</i>*, <i>surface waterbodies</i>*, <i>artificial watercourses</i>* and the <i>coastal marine area</i>[^] - for all <i>discharges</i>*, 50 m from any <i>historic heritage</i>* identified in any <i>district plan</i>[^] or <i>regional plan</i>[^]. 4. Stormwater from ancillary roof areas, and hardstand areas which do not hold animals, must not <i>discharge</i>*	available <i>water</i>* storage capacity of the soil (deferred irrigation) - nitrogen loading in terms of kgN/ha/year and kgN/ha in any 24 hour period - effluent storage facilities (including storage volume) to allow for the withholding of effluent during periods of prolonged wet weather when the soil moisture deficit is insufficient to allow for deficit effluent irrigation to occur - measures to manage the ponding of effluent on the <i>discharge</i>* area <i>maintenance</i> of vegetative cover on the <i>discharge</i>* area - management of odours arising from the effluent <i>discharge</i>* - contingency measures, including for events of mechanical failure and prolonged wet weather - duration of consent - review of consent <i>conditions</i>[^] - compliance monitoring - the matters in RP-LF-LW-P12. Except for new piggeries, <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
			to the effluent storage facility unless the volume calculation for the pond takes into consideration the input from ancillary roof and hardstand areas. 5. A nutrient budget, undertaken using the OVERSEER® model, which takes into account all other sources of nitrogen and which is designed to minimise nitrogen leaching rates, must be used to plan and carry out the <i>animal effluent* discharge*</i>. If a <i>nutrient management plan*</i> is required under RP-LF-LW-R14, RP-LF-LW-R15, RP-LF-LW-R17 and RP-LF-LW-R18 then the nutrient budget required by this <i>condition</i>[^] must be consistent with it and the activity must be carried out in accordance with it. 6. There must be no offensive or objectionable odour, <i>dust*</i>, or effluent drift beyond the <i>property*</i> boundary.	
LF-LW-R17 Existing intensive farming land* use activities not complying with RP-LF-LW-R14	The use of <i>land*</i> pursuant to s9(2) RMA for any of the following intensive farming: 1. <i>dairy farming*</i> 2. <i>commercial vegetable growing*</i> 3. <i>cropping*</i> 4. <i>intensive sheep and beef farming*</i> that was existing in the <i>Water Management Sub-areas*</i> listed in and from the dates specified in Table 11, and any of the following <i>discharges*</i> pursuant to ss15(1) or 15(2A) RMA associated with intensive farming, that do not comply with one or more of the <i>conditions</i>[^], standards and terms of RP-LF-LW-R14 1. the <i>discharge*</i> of <i>fertiliser*</i> onto or into <i>land*</i>	Restricted Discretionary		Discretion is restricted to: 1. preparation of and compliance with a <i>nutrient management plan*</i> for the <i>land*</i> 2. the extent of non-compliance with the <i>cumulative nitrogen leaching maximum*</i> specified in Table 12 3. measures to avoid, remedy or mitigate nutrient leaching, faecal contamination and sediment losses from the <i>land*</i> 4. 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 5. the bridging or culverting of <i>rivers*</i> that are permanently flowing or have an

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
	2. the <i>discharge*</i> of <i>contaminants*</i> onto or into <i>land*</i> from a. the preparation, storage, use or transportation of stock feed on <i>production land</i>[^] b. the use of a <i>feedpad*</i> 3. the <i>discharge*</i> of <i>grade Aa biosolids*</i> or <i>compost*</i> onto or into <i>production land</i>[^] 4. the <i>discharge*</i> of <i>poultry farm litter*</i> onto or into <i>production land</i>[^] 5. 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: a. effluent from dairy sheds and <i>feedpads*</i> b. effluent received from piggeries c. sludge from farm effluent ponds d. poultry farm effluent and, as an <i>ancillary activity*</i>, any <i>discharge*</i> of <i>contaminants*</i> into air pursuant to ss15(1) or 15(2A) RMA.			<i>active bed*</i> width greater than 1 m that are crossed by cattle 6. the matters referred to in the <i>conditions</i>[^] of RP-LF-LW-R9, RP-LF-LW-R10, RP-LF-LW-R11 and RP-LF-LW-R12 7. the matters referred to in the <i>conditions</i>[^] of RP-LF-LW-R16 and the matters of control in RP-LF-LW-R16 8. avoiding, remedying or mitigating the <i>effects*</i> of odour, <i>dust*</i>, <i>fertiliser*</i> drift or effluent drift 9. provision of information including the annual <i>nutrient management plan*</i> 10. duration of consent 11. review of consent <i>conditions</i>[^] 12. compliance monitoring 13. the matters in RP-LF-LW-P12.
LF-LW-R18 New intensive farming <i>land*</i> use activities not complying with RP-LF-LW-R15	The use of <i>land*</i> pursuant to s9(2) RMA for any of the following intensive farming 1. <i>dairy farming*</i> 2. <i>commercial vegetable growing*</i> 3. <i>cropping*</i> 4. <i>intensive sheep and beef farming*</i>	Restricted Discretionary		Discretion is restricted to: 1. preparation of and compliance with a <i>nutrient management plan*</i> for the <i>land*</i> 2. the extent of non-compliance with the <i>cumulative nitrogen leaching maximum*</i> specified in Table 12

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
	that occurs from the date this rule has legal effect⁵ anywhere within the Region, and any of the following <i>discharges</i>* pursuant to ss15(1) or 15(2A) RMA associated with intensive farming, that do not comply with one or more of the <i>conditions</i>[^], standards and terms of RP-LF-LW-R15: 1. the <i>discharge</i>* of <i>fertiliser</i>* onto or into <i>land</i>* 2. the <i>discharge</i>* of <i>contaminants</i>* onto or into <i>land</i>* from a. the preparation, storage, use or transportation of stock feed on <i>production land</i>[^] b. the use of a <i>feedpad</i>* 3. the <i>discharge</i>* of <i>grade Aa biosolids</i>* or <i>compost</i>* onto or into <i>production land</i>[^] 4. the <i>discharge</i>* of <i>poultry farm litter</i>* onto or into <i>production land</i>[^] 5. the <i>discharge</i>* of <i>farm animal effluent</i>* onto or into <i>production land</i>[^] including: a. effluent from dairy sheds and <i>feedpads</i>* b. effluent received from piggeries c. sludge from farm effluent ponds d. poultry farm effluent			3. measures to avoid, remedy or mitigate nutrient leaching, faecal contamination and sediment losses from the <i>land</i>* 4. 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 5. 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 6. the matters referred to in the <i>conditions</i>[^] of RP-LF-LW-R9, RP-LF-LW-R10, RP-LF-LW-R11 and RP-LF-LW-R12 7. the matters referred to in the <i>conditions</i>[^] of RP-LF-LW-R16 and the matters of control in RP-LF-LW-R16 8. avoiding, remedying or mitigating the <i>effects</i>* of odour, <i>dust</i>*, <i>fertiliser</i>* drift, or effluent drift 9. provision of information including the annual <i>nutrient management plan</i>* 10. duration of consent 11. review of consent <i>conditions</i>[^] 12. compliance monitoring the matters in RP-LF-LW-P12.

⁵ The rule 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.

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
	and, as an <i>ancillary activity</i> *, any <i>discharge</i> * of <i>contaminants</i> * into air pursuant to ss15(1) or 15(2A) RMA.			
LF-LW-R19 Grade Ab, Ba or Bb biosolids*	The <i>discharge</i> * of grade Ab, Ba or Bb <i>biosolids</i> * onto or into <i>production land</i> [^] pursuant to ss15(1) or 15(2A) RMA, and, as an <i>ancillary activity</i> *, any <i>discharge</i> * of <i>contaminants</i> * into air pursuant to ss15(2) or 15(2A) RMA, except where the <i>discharge</i> * is undertaken in association with a use of <i>land</i> * controlled by RP-LF-LW-R14, RP-LF-LW-R15, RP-LF-LW-R17 and RP-LF-LW-R18.	Restricted Discretionary	- There must be no direct <i>discharge</i>* or run-off into any surface <i>waterbody</i>* or its <i>bed</i>* or <i>artificial watercourse</i>*. - The material must have undergone stabilisation processes to achieve at least B grade as defined by the Guidelines for the Safe Application of Biosolids to Land in New Zealand (New Zealand Water and Waste Association, August 2003). <i>Hazardous substances</i>* must not exceed b grade limits as given by the Guidelines for the Safe Application of Biosolids to Land in New Zealand (New Zealand Water and Waste Association, August 2003). - The <i>discharge</i>* must comply with the following separation distances: 150 m from residential buildings, public places and amenity areas where people congregate, <i>educational facilities</i>* and <i>public roads</i>* 50 m from <i>property</i>* boundaries 50 m from <i>rare habitats</i>*, <i>threatened habitats</i>* and <i>at-risk habitats</i>* 20 m from <i>bores</i>*, surface <i>waterbodies</i>*, <i>artificial watercourses</i>* and the <i>coastal marine area</i>[^] 50 m from any <i>historic heritage</i>* identified in any <i>district plan</i>[^] or <i>regional plan</i>[^]. - A nutrient budget undertaken using the OVERSEER® model, which takes into account all other sources of nitrogen and which is designed to minimise nitrogen leaching rates, must be used to plan and carry out the <i>biosolids</i>* <i>discharge</i>*. If a <i>nutrient management plan</i>* is required under RP-LF-LW-R14, RP-LF-LW-	Discretion is reserved over: - the rate of <i>discharge</i>* and frequency of <i>discharge</i>* to control nutrient and <i>contaminant</i>* loading rates <i>maintenance</i> - of vegetative cover in the area of <i>discharge</i>* - avoiding, remedying or mitigating the <i>effects</i>* of odour or <i>dust</i>* - contingency measures, including for events of mechanical failure and prolonged wet weather - monitoring and information requirements - duration of consent - review of consent <i>conditions</i>[^] - compliance monitoring - the matters in RP-LF-LW-P12.

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
			R15, RP-LF-LW-R17 and RP-LF-LW-R18 then the nutrient budget required by this <i>condition</i>[^] must be consistent with it and the activity must be carried out in accordance with it. 5. The <i>discharge</i>[*] must not result in any offensive or objectionable odour or <i>dust</i>[*] beyond the <i>property</i>[*] boundary.	

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 RP-ECO-R1 and RP-ECO-R2. *Discharges*^{*} from agricultural activities at other locations are regulated as follows:

1. ***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 RP-LF-LW-R38.
2. **Activities that do not comply** - Except for RP-LF-LW-R15, 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 RP-LF-LW-R38.

Rules – *discharges* of water**

The requirements specified in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 also apply, as rules, in addition to the following rules. One Plan users must refer to the Regulations and they should be read in conjunction with the following rules. Where there is conflict between the provisions of the Regulations and RP-LF-LW-R20, the more stringent provision will apply.

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
LF-LW-R20 <i>Discharges* of water* to water*</i>	The <i>discharge*</i> of <i>water*</i> into <i>water*</i> pursuant to s15(1) RMA (excluding drainage <i>water*</i> which is regulated by RP-LF-TUD-R48 and RP-LF-TUD-R49, and the <i>discharge*</i> of <i>water*</i> into <i>water*</i> that is part of the normal <i>operation*</i> of a dam which is regulated by RP-LF-AWBD-R60 or RP-LF-AWBD-R61).	Permitted	1. The <i>discharge*</i> must not cause or exacerbate the flooding of any neighbouring <i>property*</i>. 2. The <i>discharge*</i> must not cause any scouring or erosion of any <i>land*</i> or <i>bed*</i> of a <i>waterbody*</i> beyond the point of <i>discharge*</i>. 3. The <i>discharge*</i> must not alter the natural course of any <i>waterbody*</i>. 4. The <i>discharge*</i> must not be to any <i>rare habitat*</i>, <i>threatened habitat*</i> or <i>at-risk habitat*</i> (<i>discharges*</i> into <i>at-risk habitats*</i> are <i>discretionary activities*</i>[^] under RP-ECO-R1 and into <i>rare habitats*</i> or <i>threatened habitats*</i> are non-complying activities under RP-ECO-R2). 5. The <i>discharge*</i> must not, after <i>reasonable mixing*</i>, change the natural temperature of the receiving <i>water*</i> by more than the maximum temperature or temperature change specified by the water quality standards for the <i>Water Management Sub-area*</i> listed in RP-SCHED5.	

Rule Guide:

Activities that do not comply – *Discharges* of water** pursuant to s15(1) RMA that do not comply with the permitted activity rule above are a **discretionary activity** under RP-LF-LW-R38.

Rules – sewage* and domestic wastewater*

The requirements specified in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 also apply, as rules, in addition to the following rules. One Plan users must refer to the Regulations and they should be read in conjunction with the following rules. Where there is conflict between the provisions of the Regulations and any of the following rules, the more stringent provision will apply.

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
LF-LW-R21 Existing discharges* of domestic wastewater*	The <i>discharge*</i> of <i>domestic wastewater*</i> onto or into <i>land</i>[^] pursuant to ss15(1) or 15(2A) RMA from an on-site <i>wastewater*</i> treatment and <i>land*</i> application system and, as an <i>ancillary activity*</i>, any <i>discharge*</i> of <i>contaminants*</i> into air pursuant to ss15(1) or 15(2A) RMA lawfully in existence at 1 July 2011. New and <i>upgraded discharges*</i> of <i>domestic wastewater*</i> are controlled by RP-LF-LW-R22.	Permitted	1. The design flow as specified in section 3 of the Manual for On-Site Wastewater Systems Design and Management (Horizons Regional Council, 2010) must be no greater than 2 m³/d (2,000 litres per day). 2. The flow allowance used to calculate the system design flow must be no less than 145 litres per person per day where the <i>water*</i> supply is provided by roof <i>water*</i> collection, or no less than 180 litres per person per day for other sources of <i>water*</i> supply. 3. The <i>discharge*</i> must consist only of <i>contaminants*</i> normally associated with domestic <i>sewage*</i> and <i>greywater*</i>. 4. There must be no direct <i>discharge*</i> of <i>wastewater*</i> to groundwater. 5. The <i>discharge*</i> must comply with the following separation distances: a. at least 20 m from any <i>bore*</i> used for drinking <i>water*</i> supply b. at least 20 m from surface <i>waterbodies*</i>, <i>artificial watercourses*</i> and the <i>coastal marine area</i>[^]. 6. The <i>discharge*</i> must not cause any offensive or objectionable odour beyond the <i>property*</i> boundary.	

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
			7. There must be no increase in the concentration of pathogenic organisms in any surface <i>waterbody</i>* as a result of the <i>discharge</i>*. 8. The <i>wastewater</i>* treatment and <i>land</i>* application system must be maintained by a manufacturer-approved contractor in accordance with the supplier's specifications or the requirements of the Manual for On-Site Wastewater Systems Design and Management (Horizons Regional Council, 2010), whichever are the more stringent. All records of each <i>maintenance</i>* action must be retained and made available for inspection by the Regional Council or its agents upon request.	
LF-LW-R22 New and upgraded discharges* of domestic wastewater*	The <i>discharge</i>* of <i>domestic wastewater</i>* onto or into <i>land</i>* pursuant to ss15(1) or 15(2A) RMA and any ancillary <i>discharge</i>* of <i>contaminants</i>* into air pursuant to ss15(1) or 15(2A) RMA from a new or upgraded on-site <i>wastewater</i>* treatment and <i>land</i>* application system which either: 1. is newly established after this <i>rule</i>[^] becomes <i>operative</i>[^], or 2. involves the <i>upgrade</i>* of a system that existed at the date that this <i>rule</i>[^] becomes <i>operative</i>[^].	Permitted	1. The activity must comply with conditions (1) to (7) of RP-LF-LW-R21. 2. All aspects of the <i>wastewater</i>* treatment and <i>land</i>* application system, including soil assessment, design, installation and operation, must be in accordance with the Manual for On-Site Wastewater Systems Design and Management (Horizons Regional Council, 2010). 3. Where the <i>property</i>* within which the <i>discharge</i>* occurs is 10 ha or greater: a. septic tanks must be fitted with <i>sewage</i>* outlet filters, unless the equivalent level of treatment is provided within a secondary or advanced <i>secondary wastewater</i>* treatment system b. the areal loading rate within the <i>wastewater</i>* <i>land</i>* application area must be no greater than the least conservative rate provided in Tables 6.2, 6.6, 6.8 and 6.10 of the Manual for On-Site Wastewater Systems Design and Management (Horizons Regional Council, 2010).	

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
			4. Where the <i>property</i>* within which the <i>discharge</i>* occurs is less than 10 ha but 4 ha or greater: a. the treatment system must be either secondary treatment which must achieve, as a minimum, the following <i>discharge</i>* quality standards: 20 g/m³ Biochemical Oxygen Demand and 30 g/m³ Suspended Solids or an improved primary septic tank and outlet filter b. the <i>land</i>* application system must be via pumping to dose load pressure compensating dripper irrigation lines for secondary or advanced secondary treated <i>sewage</i>* and shallow low pressure <i>sewage</i>* distribution trenches for primary treated <i>sewage</i>* or lesser rate in accordance with that prescribed in Table 6.2 in the Manual for On-Site Wastewater Systems Design and Management (Horizons Regional Council, 2010) c. the areal loading rate within the <i>wastewater</i>* <i>land</i>* application area must be no greater than 5 mm/d (5 litres per m² per day) for secondary treated <i>sewage</i>* and no greater than 3 mm/d (3 litres per m² per day) for primary treated <i>sewage</i>*. 5. Where the <i>property</i>* within which the <i>discharge</i>* occurs is less than 4 ha: a. the <i>property</i>* must cover an area of at least either 5,000 m² for <i>properties</i>* created by <i>subdivision</i>* after this <i>rule</i>[^] becomes <i>operative</i>[^], or 2,500 m² for <i>properties</i>* that existed at the date that this <i>rule</i>[^] becomes <i>operative</i>[^]	

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
			b. the <i>wastewater*</i> treatment system must include secondary treatment which must achieve, as a minimum, the following <i>discharge*</i> quality standards: 20 g/m³ Biochemical Oxygen Demand, 30 g/m³ Suspended Solids, and 60 g/m³ Total Nitrogen c. the <i>land*</i> application system must be via pumping to dose load pressure compensating dripper irrigation lines d. the areal loading rate within the <i>wastewater*</i> <i>land*</i> application area must be no greater than 3 mm/d (3 litres per m² per day) or lesser rate in accordance with that prescribed in Table 6.2 in the Manual for On-Site Wastewater Systems Design and Management (Horizons Regional Council, 2010). 6. Separation distances to <i>waterbodies*</i> and <i>property*</i> boundaries must be in accordance with those specified in Table 2.2 in the Manual for On-Site Wastewater Systems Design and Management (Horizons Regional Council, 2010). 7. The placement, burial, covering and exclusion of the <i>land*</i> application area must be as specified in section 6 in the Manual for On-Site Wastewater Systems Design and Management (Horizons Regional Council, 2010). 8. For secondary treatment systems there must be at least a 50% reserve disposal area allocation. For primary treatment systems this reserve area allocation must be not less than 100%.	

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
			9. The activity must not take place in any <i>rare habitat*</i> , <i>threatened habitat*</i> or <i>at-risk habitat*</i> . 10. The activity must not be to any <i>historic heritage*</i> identified in any <i>district plan^</i> or <i>regional plan^</i> . 11. The <i>wastewater*</i> treatment and <i>land*</i> application system must be maintained by a manufacturer-approved contractor in accordance with the supplier's specifications or the requirements of the Manual for On-Site Wastewater Systems Design and Management (Horizons Regional Council, 2010), whichever are the more stringent. All records of each <i>maintenance*</i> action must be retained and made available for inspection by the Regional Council or its agents upon request. 12. The <i>discharge*</i> must not cause any offensive or objectionable odour beyond the <i>property*</i> boundary.	
LF-LW-R23 Sewage* storage and treatment facilities	The <i>discharge*</i> onto or into <i>land*</i> of <i>sewage*</i> pursuant to ss15(1) or 15(2A) RMA for the purpose of storing or treating the <i>sewage*</i> in ponds and , as an <i>ancillary activity*</i>, any <i>discharge*</i> to air pursuant to s15(2A) RMA. Advice Note: This <i>rule^</i> controls <i>sewage*</i> treatment and storage ponds but does not control <i>domestic wastewater*</i> treatment and disposal, which is controlled under RP-LF-LW-R21, RP-LF-LW-R22 and RP-LF-LW-R23.	Permitted	1. All <i>sewage*</i> storage and treatment facilities (including sumps and ponds) must be sealed to restrict seepage of <i>sewage*</i> . The permeability of the sealing layer must not exceed 1×10^{-9} m/s. 2. All <i>sewage*</i> storage and treatment facilities (including sumps and ponds) must be located and managed in a manner which ensures at all times that: <i>sewage*</i> run-off from the area into surface <i>waterbodies*</i>, <i>artificial watercourses*</i> and the <i>coastal marine area^</i> is prevented - run-off from the surrounding catchment is prevented from entering the area. 3. The <i>discharge*</i> must not result in any offensive or objectionable odour beyond the boundary of the subject <i>property*</i> .	

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
			4. The <i>discharge*</i> must comply with the following separation distances: a. 150 m from any residential buildings, public places and amenity areas where people congregate, <i>educational facilities*</i> and <i>public roads</i> b. 50 m from <i>rare habitats*</i>, <i>threatened habitats*</i> and <i>at-risk habitats*</i> c. 30 m from <i>bores*</i>, <i>surface waterbodies*</i>, <i>artificial watercourses*</i> and the <i>coastal marine area</i>[^] 5. 50 m from <i>historic heritage*</i> as identified in any <i>district plan</i>[^] or <i>regional plan</i>[^].	
LF-LW-R24 Discharges* of domestic wastewater* not complying with LF-LW-R21 and LF-LW-R22	The <i>discharge*</i> of <i>domestic wastewater*</i> onto or into <i>land*</i> pursuant to ss15(1) or 15(2A) RMA and, as an <i>ancillary activity*</i> , any any <i>discharge*</i> of <i>contaminants*</i> into air pursuant to ss15(1) or 15(2A) RMA from an on-site <i>wastewater*</i> treatment and disposal system that does not comply with one or more of the <i>conditions</i> [^] of RP-LF-LW-R21 or RP-LF-LW-R22.	Restricted Discretionary	1. The design flow must not exceed 6 m³/d. 2. The flow allowance used to calculate the system design flow must be no less than 145 litres per person per day where the <i>water*</i> supply is provided by roof <i>water*</i> collection, or no less than 180 litres per person per day for other sources of <i>water*</i> supply. 3. The <i>discharge*</i> must consist only of <i>contaminants*</i> normally associated with domestic <i>sewage*</i> and <i>greywater*</i>. 4. The activity must not take place in any <i>rare habitat*</i>, <i>threatened habitat*</i> or <i>at-risk habitat*</i>. 5. The activity must not be to any <i>historic heritage*</i> identified in any <i>district plan</i>[^] or <i>regional plan</i>[^].	Discretion is restricted to: 1. the volume of <i>wastewater*</i> and design of the treatment system 2. compliance with the Manual for On-Site Wastewater Systems Design and Management (Horizons Regional Council, 2010) 3. the design of the disposal system, the disposal method, and the rate of <i>land*</i> application 4. the <i>discharge*</i> quality, and allowable level of contamination 5. <i>environmental* effects*</i> arising from the location and method of disposal 6. the reserve application area 7. duration of consent 8. review of consent <i>conditions</i>[^]

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
				9. compliance monitoring 10. the matters in RP-LF-LW-P12. <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).
LF-LW-R25 Discharges* of untreated sewage* directly into surface water*	The <i>discharge*</i> of <i>untreated sewage*</i> directly into a surface <i>waterbody*</i> pursuant to s15(1) RMA, except stormwater that is contaminated with <i>sewage*</i> as a result of infiltration during rainfall.	Prohibited		

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 *discharges** in *rare habitats**, *threatened habitats** and *at-risk habitats** are regulated by RP-ECO-R1 and RP-ECO-R2. *Discharges** at other locations are regulated as follows:

1. **Activities not covered by rules** – *Discharges** of *sewage** pursuant to ss15(1) RMA that are not covered by the rules above are a **discretionary activity** under RP-LF-LW-R38.
2. **Activities that do not comply** – *Discharges** of *domestic wastewater** pursuant to ss15(1) or 15(2A) RMA that do not comply with the permitted activity, controlled activity or restricted discretionary activity rules above, but which are not prohibited, are a **discretionary activity** under RP-LF-LW-R38.

Rules – stormwater

The requirements specified in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 also apply, as rules, in addition to the following rules. One Plan users must refer to the Regulations and they should be read in conjunction with the following rules. Where there is conflict between the provisions of the Regulations and any of the following rules, the more stringent provision will apply.

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
LF-LW-R26 Discharges* of stormwater to surface water* and land*	The <i>discharge*</i> of stormwater into surface <i>water*</i> pursuant to s15(1) RMA or onto or into <i>land*</i> pursuant to ss15(1) or 15(2A) RMA, and, as an <i>ancillary activity*</i> , any any takes or diversions of stormwater pursuant to s14(2) RMA forming part of the stormwater system.	Permitted	- The <i>discharge*</i> must not include stormwater from any: <i>industrial or trade premises^</i> where <i>hazardous substances*</i> stored or used may be entrained by the stormwater <i>contaminated land*</i> where the <i>contaminants*</i> of concern may be entrained by the stormwater - operating quarry or <i>mineral^</i> extraction <i>site*</i> unless there is an <i>interceptor system*</i> in place. - The <i>discharge*</i> must not cause or exacerbate the flooding of any other <i>property*</i>. - The activity must not cause erosion of any <i>land*</i> or the <i>bed*</i> of any <i>waterbody*</i> beyond the point of <i>discharge*</i> unless this is not practicably avoidable, in which case any erosion that occurs as a result of the <i>discharge*</i> must be remedied as soon as practicable. - There must be no <i>discharge*</i> to any <i>rare habitat*</i>, <i>threatened habitat*</i>, <i>at-risk habitat*</i>, or reach of <i>river*</i> or its <i>bed*</i> with a RP-SCHED2 Value of Natural State. - For <i>discharges*</i> of stormwater onto or into <i>land*</i>: - the <i>discharge*</i> must be below a rate that would cause flooding outside the design <i>discharge*</i> soakage area, except in rain events equivalent to or greater than the 10% annual exceedance	

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
			probability design storm. Any exceedance must go into designated overland flow paths b. there must not be any overland flow resulting in a <i>discharge*</i> to a natural surface <i>waterbody*</i>, except in rain events equivalent to or greater than the 10% annual exceedance probability design storm c. the <i>discharge*</i> must not contain concentrations of <i>hazardous substances*</i> that are toxic to aquatic ecosystems, or accumulate in soil. 6. For <i>discharges*</i> of stormwater into surface <i>waterbodies*</i> the <i>discharge*</i> must not cause any permanent reduction of the ability of the receiving <i>waterbody*</i> or its <i>bed*</i> to convey flood flows. 7. For <i>discharges*</i> of stormwater into surface <i>waterbodies*</i> the <i>discharge*</i> must not cause, after <i>reasonable mixing*</i>, any of the following <i>effects*</i> in the receiving <i>waterbody*</i>: a. the production of conspicuous <i>oil*</i> or grease films, scums or foams, or floatable or suspended materials b. any conspicuous change in the colour or visual clarity of the receiving <i>water*</i> c. any emission of objectionable odour d. the rendering of <i>fresh water*</i> unsuitable for consumption by farm animals e. toxicity to aquatic ecosystems. 8. The activity must not be to any <i>historic heritage*</i> identified in any <i>district plan^</i> or <i>regional plan^</i>.	
LF-LW-R27	The <i>discharge*</i> of stormwater into surface <i>water*</i> pursuant to s15(1) RMA or onto or into <i>land*</i> pursuant to ss15(1) or 15(2A)	Restricted Discretionary	1. There must be no <i>discharge*</i> to any <i>rare habitat*</i> , <i>threatened habitat*</i> , <i>at-risk habitat*</i> , or reach of a	Discretion is reserved over:

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
Discharges* of stormwater to surface water* or land* not complying with LF-LW-R26	RMA, which does not comply with RP-LF-LW-R26, and, as an <i>ancillary activity*</i> , any takes or diversions of stormwater pursuant to s14(2) RMA forming part of the stormwater system.		<i>river*</i> or its <i>bed*</i> with a RP-SCHED2 Value of Natural State.	1. measures to control flooding and erosion 2. <i>contaminant*</i> concentrations and loading rates 3. measures to avoid, remedy or mitigate adverse <i>effects*</i> on groundwater quality 4. measures to manage the level of soil contamination 5. measures required to comply with s107(1) RMA 6. measures to assist with maintaining or achieving the RP-SCHED5 <i>water quality targets*</i> for the relevant <i>Water Management Sub-areas*</i> 7. management of odours arising from the stormwater <i>discharge*</i> 8. stormwater system <i>maintenance*</i> requirements 9. contingency requirements 10. monitoring and information requirements 11. duration of consent 12. review of consent <i>conditions*</i> 13. the matters in RP-LF-LW-P12.

Rule Guide:

1. Some *discharges** in *rare habitats**, *threatened habitats** and *at-risk habitats** are regulated by RP-ECO-R1 and RP-ECO-R2.
2. *Discharges** in a reach of a *river** with a RP-SCHED2 Value of Natural State or Sites of Significance - Aquatic are regulated by RP-LF-LW-R33.

*Discharges** at other locations are regulated as follows:

1. **Activities not covered by rules** – *Discharges** of stormwater pursuant to s15(1) RMA that are not covered by the rules above are a **discretionary activity** under RP-LF-LW-R38. Stormwater *discharges** into network utility piped stormwater systems are not regulated by this Plan, however permission may be required from the system owner or operator. The system owner or operator is responsible for the quality of *discharges** exiting the system into receiving *environments**.
2. **Activities that do not comply** – *Discharges** of stormwater that do not comply with RP-LF-LW-R27 are a **discretionary activity** under RP-LF-LW-R38.

Rules – dyes and tracers

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
LF-LW-R28 <i>Discharges*</i> of dye and salt tracers	The <i>discharge*</i> of dye and salt tracer material, excluding radioisotope tracers, into surface <i>water*</i> pursuant to s15(1) RMA.	Permitted	1. The dye or salt tracer material <i>discharged*</i> must not exceed 20 l of dye in solution, 10 kg of salt, or 100 l of salt solution. 2. The Regional Council and the relevant <i>Territorial Authority*</i> must be notified in writing of the proposed <i>discharge*</i> at least 24 hours prior to the <i>discharge*</i>. Such notification must include: a. the name and contact details of the person responsible for the <i>discharge*</i> b. the purpose and nature of the <i>discharge*</i> c. the nature of the tracer including its type, colour, and product name and description d. the location, timing and duration of the <i>discharge*</i>. 3. The dye or salt tracer must not be a <i>hazardous substance*</i> in terms of the Hazardous Substances and New Organisms Act 1996. 4. There must be no <i>discharge*</i> to any <i>rare habitat*</i>, <i>threatened habitat*</i>, <i>at-risk habitat*</i>, or reach of a <i>river*</i> or its <i>bed*</i> with a RP-SCHED2 Value of Natural State or Sites of Significance - Aquatic.	

Rule Guide:

1. Some *discharges** in *rare habitats**, *threatened habitats** and *at-risk habitats** are regulated by RP-ECO-R1 and RP-ECO-R2.
2. *Discharges** in a reach of a *river** with a RP-SCHED2 Value of Natural State or Sites of Significance - Aquatic are regulated by RP-LF-LW-R33.

*Discharges** at other locations are regulated as follows:

1. **Activities not covered by rules** – *Discharges** of radioisotope tracers and other tracers pursuant to s15(1) RMA that are not covered by the rule above are a **discretionary activity** under RP-LF-LW-R38.
2. **Activities that do not comply** – *Discharges** of dyes and tracers pursuant to s15(1) RMA that do not comply with the permitted activity rule above are a **discretionary activity** under RP-LF-LW-R38.

Rules – *cleanfill material**, *composting**, *landfills** and *solid waste**

The requirements specified in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 also apply, as rules, in addition to the following rules. One Plan users must refer to the Regulations and they should be read in conjunction with the following rules. Where there is conflict between the provisions of the Regulations and any of the following rules, the more stringent provision will apply.

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
LF-LW-R29 <i>Discharges* of cleanfill material*</i>	The <i>discharge*</i> of <i>cleanfill material*</i> and other inert materials such as concrete or brick, or material that would otherwise be <i>cleanfill material*</i> containing up to 5% by weight putrescible matter onto or into <i>land*</i> pursuant to ss15(1) or 15(2A) RMA and as an <i>ancillary activity*</i> , any any <i>discharge*</i> of <i>contaminants*</i> into <i>water*</i> pursuant to s15(1) RMA or air pursuant to ss15(1) or 15(2A) RMA except as regulated by other <i>rules^</i> in this Plan.	Permitted	1. The siting, design, installation and management must be in accordance with A Guide to the Management of Cleanfills (Ministry for the Environment, 2002). 2. The rate of <i>cleanfill material* discharge*</i> must be no more than 2,500 m³/y per <i>property*</i>. 3. The <i>cleanfill material*</i> must not be <i>discharged*</i> within: a. a <i>rare habitat*</i>, <i>threatened habitat*</i> or <i>at-risk habitat*</i> b. <i>land*</i> with a <i>slope*</i> greater than 20°	

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
	The stockpiling of gravel as an <i>ancillary activity</i> * to gravel extraction and roading activities is not restricted by this <i>rule</i> ^.		c. 50 m from any <i>historic heritage</i>* identified in any <i>district plan</i>^ or <i>regional plan</i>^. 4. Records of the source and composition of all <i>cleanfill material</i>* <i>discharged</i>* at the <i>site</i>* must be maintained and made available to the Regional Council upon request. 5. The <i>discharge</i>* of the <i>cleanfill material</i>* must be undertaken and maintained in a manner so as to ensure its long-term physical stability.	
LF-LW-R30 Composting* activities	The <i>discharge</i> * of <i>contaminants</i> * onto or into <i>land</i> * pursuant to ss15(1) or 15(2A) RMA, or into air pursuant to ss15(1) or 15(2A) RMA arising from a <i>composting</i> * activity.	Permitted	1. The material to be composted must be <i>green waste</i>*, and must not contain any <i>hazardous substance</i>* or <i>sewage</i>*. 2. The activity must not be located within: a. a <i>rare habitat</i>*, <i>threatened habitat</i>* or <i>at-risk habitat</i>* b. the <i>bed</i>* of a <i>river</i>* or <i>lake</i>* c. <i>land</i>* with a <i>slope</i>* greater than 20° d. 50 m from any <i>historic heritage</i>* identified in any <i>district plan</i>^ or <i>regional plan</i>^. 3. All areas used for the <i>composting</i>* activity, including areas for storing <i>compost</i>*, must be located and managed in a manner that ensures at all times when such areas are in use: a. run-off from the area into surface <i>water</i>* or an <i>artificial watercourse</i>* is prevented b. run-off from the surrounding catchment is prevented from entering the area. 4. The <i>discharge</i>* must not cause any offensive or objectionable odour or <i>dust</i>* beyond the <i>property</i>* boundary.	
LF-LW-R31	The <i>discharge</i> * of <i>contaminants</i> * onto or into <i>land</i> * or into <i>water</i> * pursuant to ss15(1) or	Controlled		Control is reserved over:

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
Closed landfills*	15(2A) RMA or air pursuant to ss15(1) or 15(2A) RMA from a closed <i>solid waste* landfill*</i> (excluding farm dumps).			1. measures to avoid adverse <i>effects*</i> on groundwater quality 2. measures to manage the level of soil contamination 3. measures to assist with maintaining or achieving the RP-SCHED5 <i>water quality targets*</i> for the relevant <i>Water Management Sub-areas*</i> 4. management of odour 5. stormwater management onto and from the <i>site*</i> 6. contingency requirements 7. monitoring and information requirements 8. duration of consent 9. review of consent <i>conditions^</i> 10. the matters in RP-LF-LW-P12. <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).
LF-LW-R32 Discharges* of persistent and harmful contaminants*	Any <i>discharge*</i> onto or into <i>land*</i> pursuant to ss15(1) or 15(2A) RMA, or into <i>water*</i> pursuant to s15(1) RMA, other than for <i>discharges*</i> of stormwater which are provided for by RP-LF-LW-R26 and RP-LF-LW-R27, of: 1. <i>wastewater*</i> sludge originating from timber treatment processes using copper chromium arsenic (CCA) wood preservatives	Non-complying		

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
	2. perchlorethylene-contaminated waste* from dry cleaning activities 3. persistent organochlorine substances 4. polyaromatic hydrocarbons 5. tributyl tin.			

Rule Guide:

1. 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.
2. Some *discharges** in *rare habitats**, *threatened habitats** and *at-risk habitats** are regulated by RP-ECO-R1 and RP-ECO-R2.

*Discharges** at other locations are regulated as follows:

1. **Activities not covered by rules** – *Discharges** onto or into *land** or into *water** pursuant to s15(1) RMA that are not covered by the rules above are a **discretionary activity** under RP-LF-LW-R38.
2. **Activities that do not comply** – *Discharges** pursuant to ss15(1) or 15(2A) RMA that do not comply with the permitted activity or controlled activity rules above, but which are not non-complying, are a **discretionary activity** under RP-LF-LW-R38.

Rules – *discharges** of *contaminants** to Natural State reaches and Sites of Significance - Aquatic

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
LF-LW-R33 <i>Discharges* of contaminants* to a</i>	Any direct <i>discharge*</i> of <i>contaminants*</i> into <i>water*</i> or onto or into <i>land*</i> pursuant to ss15(1) or 15(2A) RMA in:	Discretionary		

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
reach of a <i>river</i> * or its <i>bed</i> * with RP-SCHED2 Values of Natural State and Sites of Significance - Aquatic	1. a reach of a <i>river</i>* or its <i>bed</i>* with a RP-SCHED2 Value of Natural State 2. a reach of a surface <i>water body</i>* or its <i>bed</i>* with a RP-SCHED2 Value of Sites of Significance - Aquatic except the <i>discharge</i>* of <i>agrichemicals</i>* for the control of pest plants for the purposes of habitat <i>maintenance</i> or enhancement (this activity is regulated by RP-AIR-R2).			

Rules – generic *discharge** rules

The requirements specified in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 and the Resource Management (National Environmental Standards for Storing Tyres Outdoors) Regulations 2021 also apply, as rules, in addition to the following rules. One Plan users must refer to the Regulations and they should be read in conjunction with the following rules. Where there is conflict between the provisions of the Regulations and any of the following rules, the more stringent provision will apply.

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
LF-LW-R34 <i>Discharges* of contaminants* to surface water*</i>	The <i>discharge*</i> of <i>contaminants*</i> into surface <i>water*</i> pursuant to s15(1) RMA, except as regulated by other <i>rules^</i> in this Plan.	Permitted	1. The rate of <i>discharge*</i> must be no greater than 50 m³/d 2. The <i>discharge*</i> must not contain agricultural waste*, sewage*, stormwater, <i>cleanfill material*</i> or other inert materials such as concrete or brick, or material that would otherwise be <i>cleanfill material*</i> containing up to 5% by weight putrescible matter, <i>contaminants*</i> from <i>composting*</i> activities, or <i>contaminants*</i> from <i>landfills*</i> (excluding farm dumps). 3. The <i>discharge*</i> must not cause or exacerbate the flooding of any other <i>property*</i>. 4. The <i>discharge*</i> must not cause any scouring or erosion of any <i>land*</i> or <i>bed*</i> of a <i>waterbody*</i> beyond the point of <i>discharge*</i>. 5. The <i>discharge*</i> must not alter the natural course of any <i>waterbody*</i> or its <i>bed*</i>. 6. There must be no <i>discharge*</i> to any natural <i>lake*</i>, <i>rare habitat*</i>, <i>threatened habitat*</i>, <i>at-risk habitat*</i>, Site of Significance - Aquatic or reach of a <i>river*</i> or its <i>bed*</i> with a RP-SCHED2 Value of Natural State. 7. The <i>discharge*</i> must not cause, after <i>reasonable mixing*</i>, any of the following <i>effects*</i> in the receiving <i>waterbody*</i>: a. the production of conspicuous <i>oil*</i> or grease films, scums or foams, or floatable or suspended materials	

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
			b. any conspicuous change in the colour or visual clarity of the receiving <i>water</i>* c. any emission of offensive or objectionable odour. 8. The <i>discharge</i>* must not, after <i>reasonable mixing</i>*, cause the receiving <i>waterbody</i>* to breach the water quality standards for that <i>waterbody</i>* set out in RP-SCHED5, either from the <i>discharge</i>* itself or in combination with any other <i>discharges</i>*.	
LF-LW-R35 Discharges* of contaminants* onto or into land* that will not enter water*	The <i>discharge</i> * of <i>contaminants</i> * onto or into <i>land</i> * in circumstances that will not result in any <i>contaminant</i> * entering <i>water</i> *, pursuant to ss15(1)(d) or 15(2A) RMA, except as regulated by other <i>rules</i> [^] in this Plan.	Permitted	1. The rate of <i>discharge</i>* must be no more than 100 m³/y per <i>property</i>*. 2. The <i>discharge</i>* must not contain agricultural waste* (except for run-off from a stock crossing bridge or culvert required under RP-LF-LW-R14, RP-LF-LW-R15, RP-LF-LW-R17 and RP-LF-LW-R18), <i>sewage</i>*, stormwater, <i>cleanfill material</i>* or other inert materials such as concrete or brick, or material that would otherwise be <i>cleanfill material</i>* but containing up to 5% by weight putrescible matter, <i>contaminants</i>* from <i>composting</i>* activities, or <i>contaminants</i>* from <i>landfills</i>* (excluding farm dumps). 3. The <i>discharge</i>* must not be located within: a. any <i>rare habitat</i>*, <i>threatened habitat</i>* or <i>at-risk habitat</i>* b. the <i>bed</i>* of a <i>river</i>* or <i>lake</i>* c. <i>land</i>* with a <i>slope</i>* greater than 20° d. 50 m from any <i>historic heritage</i>* identified in any <i>district plan</i>[^] or <i>regional plan</i>[^]. 4. Records of the source and composition of the <i>discharge</i>* must be maintained and made available to the Regional Council upon request.	

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
			5. The <i>discharge*</i> must be undertaken and maintained in a manner so as to ensure its long-term stability, and avoid the risk of erosion. 6. The <i>discharge*</i> must not cause any increase in the concentration of <i>hazardous substances*</i> or pathogenic organisms on or in any <i>land*</i>. 7. The <i>discharge*</i> must not have any acid-producing potential. With the exception of standard (3)(a) in relation to any <i>rare habitat*</i> or <i>threatened habitat*</i> these standards do not apply to the <i>discharge*</i> of live ammunition for weapons training purposes on any defence area (as defined in section 2 of the Defence Act 1990) owned by the Crown where it is undertaken in accordance with that Act.	
LF-LW-R36 Discharges* of contaminants* onto or into land* that may enter water*	The <i>discharge*</i> of <i>contaminants*</i> onto or into <i>land*</i> in circumstances which may result in those <i>contaminants*</i> (or any other <i>contaminant*</i> emanating as a result of natural processes from those <i>contaminants*</i>) entering <i>water*</i> , pursuant to ss15(1)(b) or 15(2A) RMA, except as regulated by other <i>rules*</i> in this Plan.	Permitted	1. The <i>discharge*</i> must comply with all of the <i>conditions*</i>[^] of RP-LF-LW-R34. 2. The <i>discharge*</i> must comply with all of the <i>conditions*</i>[^] of RP-LF-LW-R35, except (1). 3. The <i>discharge*</i> must be at least 600 mm above the seasonally highest <i>water*</i> table. 4. The <i>discharge*</i> must comply with the following separation distances: - at least 30 m from any <i>bore*</i> - at least 20 m from any surface <i>waterbody*</i>, <i>artificial watercourse*</i> and the <i>coastal marine area*</i>[^]. 5. The <i>discharge*</i> must not be located within any <i>rare habitat*</i>, <i>threatened habitat*</i> or <i>at-risk habitat*</i>. 6. There must be no surface ponding in the area of <i>discharge*</i>, or run-off of any <i>contaminant*</i> into a surface <i>waterbody*</i> or its <i>bed*</i>, <i>artificial watercourse*</i>	

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
			or the <i>coastal marine area</i>[^] as a result of the <i>discharge</i>[*]. 7. The <i>discharge</i>[*] must not cause any more than minor reduction in the quality of groundwater. 8. The <i>discharge</i>[*] must not result in any airborne liquid <i>contaminant</i>[*] being carried beyond the boundary of the <i>property</i>[*]. With the exception of standard (5) in relation to any <i>rare habitat</i>[*] or <i>threatened habitat</i>[*] these standards do not apply to the <i>discharge</i>[*] of live ammunition for weapons training purposes on any defence area (as defined in section 2 of the Defence Act 1990) owned by the Crown where it is undertaken in accordance with that Act.	
LF-LW-R37 Replacement consents for discharges* of water* and contaminants* to water* and land* from existing hydroelectricity schemes	The <i>discharge</i> [*] of <i>water</i> [*] or <i>contaminants</i> [*] into <i>water</i> [*] or onto or into <i>land</i> [*] pursuant to ss15(1) or 15(2A) RMA from existing consented hydroelectricity generation schemes for which replacement consents are sought.	Controlled	1. The consent application is to replace existing consents that are expiring and there is no increase to the existing volume of <i>discharge</i>[*] or the nature of <i>contaminants</i>[*]. 2. The activity must not take place in any <i>rare habitat</i>[*], <i>threatened habitat</i>[*] or <i>at-risk habitat</i>[*].	Control is reserved over: 1. measures to control flooding and erosion 2. <i>contaminant</i>[*] concentrations and loading rates 3. measures required to comply with s107(1) RMA 4. measures to assist with maintaining or achieving the RP-SCHED5 <i>water quality targets</i>[*] for the relevant <i>Water Management Sub-areas</i>[*] 5. measures to avoid, remedy or mitigate any adverse <i>effects</i>[*] on the Values of the <i>waterbody</i>[*] at and below the point of <i>discharge</i>[*] 6. measures to avoid, remedy or mitigate any adverse <i>effects</i>[*] on the instream

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
				geomorphical components of the natural character of the <i>waterbody</i>* 7. <i>water</i>* levels, flow regime and minimum flows 8. <i>maintenance</i> and contingency requirements 9. monitoring and information requirements 10. measures to avoid, remedy or mitigate adverse <i>effects</i>* on <i>tangata whenua</i>[^] values 11. duration of consent 12. review of <i>consent conditions</i>[^] 13. compliance monitoring. Resource consent applications under this rule will be notified to those parties who are adversely affected in relation to the matters over which control is reserved. This clause does not preclude full public notification at the councils discretion in accordance with the RMA.

Rule Guide:

1. 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.
2. Some *discharges** pursuant to s15(1) RMA in *rare habitats**, *threatened habitats** and *at-risk habitats** are regulated by RP-ECO-R1 and RP-ECO-R2.
3. *Discharges** pursuant to ss15(1) or 15(2A) RMA in a reach of a *river** with a RP-SCHED2 Value of Natural State or Sites of Significance - Aquatic are regulated by RP-LF-LW-R33.

*Discharges** at other locations are regulated as follows:

1. *Discharges** pursuant to s15(1) RMA that do not meet the requirements of the generic rules, and are not covered by any other rule in the Plan, are discretionary activities under RP-LF-LW-R38.

Rules – default *discharge** rule

The requirements specified in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 and the Resource Management (National Environmental Standards for Storing Tyres Outdoors) Regulations 2021 also apply, as rules, in addition to the following rules. One Plan users must refer to the Regulations and they should be read in conjunction with the following rules. Where there is conflict between the provisions of the Regulations and RP-LF-LW-R38, the more stringent provision will apply.

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
LF-LW-R38 <i>Discharges* of water* or contaminants* to land* or water* not covered by other rules^ in this Plan or chapter</i>	The <i>discharge*</i> of <i>water*</i> or <i>contaminants*</i> into surface <i>water*</i> pursuant to s15(1)(a) RMA or <i>discharge*</i> of <i>contaminants*</i> onto or into <i>land*</i> pursuant to ss15(1)(b), 15(1)(d) or 15(2A) RMA which are not regulated by other <i>rules^</i> in this Plan, or which do not comply with the <i>permitted activity^</i> , <i>controlled activity^</i> or <i>restricted discretionary activity^</i> <i>rules^</i> in this chapter.	Discretionary		

LF – TUD – Takes, uses and diversions of *water**, and *bores**

Objectives

LF-TUD-O4: Regulation of takes, uses and diversions of *water**

The regulation of takes, uses and diversions of *water** in a manner that:

1. recognises and provides for the Values and management objectives in RP-SCHED2, and
2. provides for the objectives and policies of RPS-LF-FW as they relate to surface *water** and groundwater use and allocation.

Policies

LF-TUD-P13: Consent decision-making for takes and uses of surface *water** and groundwater

When making decisions on *resource consent*[^] applications under s104-104D RMA, and setting consent *conditions*[^], for takes and uses of surface *water** or groundwater the Regional Council must:

1. seek to avoid any adverse *effects** on other lawful activities, particularly on other surface *water** takes, including takes allowed by s14(3)(b) of the RMA, and groundwater takes from properly-constructed, efficient and fully-functioning *bores** (as described in RP-LF-TUD-P16 and RP-LF-TUD-P17),
2. enable non-consumptive uses of *water** including the use and recycling of *water**, and
3. have regard to the objectives and policies of RPS-RMIA, RPS-EIT, RPS-LF, RPS-ECO, RPS-HCV, RPS-NATC, RPS-NFL, RPS-HAZ, and RP-IP to the extent that they are relevant to the activity.

LF-TUD-P14: Consideration of alternative *water** sources

When making decisions on consent applications to take surface *water**, the opportunity to utilise alternative sources such as groundwater, *water** storage, *water** harvesting (including during periods of high flow in a *river**) and the recycling of *water** must be considered.

LF-TUD-P15: Consent decision-making for diversions and drainage

When making decisions on *resource consent*[^] applications, and setting consent *conditions*[^], for the diversion of *water**, including diversions associated with drainage, the *Regional Council*[^] must:

1. manage *effects** on *rare habitats**, *threatened habitats** and *at-risk habitats** in accordance with RPS-CE and the relevant objective and policies in RPS-NFL,
2. manage *effects** on the natural character of *water bodies** in accordance with RPS-CE,
3. seek to avoid any adverse *effects** on any other lawful activity, particularly on other surface *water** takes, including those allowed by s14(3)(b) of the RMA and groundwater takes from properly-constructed, efficient and fully-functioning *bores** (as described in RP-LF-TUD-P16 and RP-LF-TUD-P17), and
4. have regard to the objectives and policies of RPS-RMIA, RPS-EIT, RPS-LF, RPS-ECO, RPS-HCV, RPS-NATC, RPS-NFL, RPS-HAZ, and RP-IP to the extent that they are relevant to the activity.

LF-TUD-P16: *Bore** construction and management

1. New *bores** must be sited to ensure adequate separation from existing *bores**, and to avoid an over-concentration of *bores** in a particular area, wherever practicable, to avoid adverse *effects** on the reliability of supply from properly-constructed, efficient and fully-functioning existing *bores**.
2. New *bores** must generally be constructed, and *bore** logs and other records prepared, in accordance with the NZS 4411:2001 Environmental Standard for Drilling of Soil and Rock.
3. New *bores** must be designed to ensure a high degree of efficiency with respect to *bore** development, *bore** depth and diameter, and screen depth and length.
4. *Bores** must be used in a manner that prevents:
 - a. *Contaminants** from entering the *bore** from the *land** surface
 - b. the wastage of *water** in artesian situations.
5. *Bores** that are no longer required must be decommissioned in general accordance with the NZS 4411:2001 Environmental Standard for Drilling of Soil and Rock.

LF-TUD-P17: *Effects** of groundwater takes on other groundwater takes

1. Consent applications to take groundwater must include pumping tests and hydrogeological assessments in order to determine the likely impact on existing groundwater takes in the vicinity.
2. Consent *conditions^* restricting the rate and duration of pumping must be imposed on new takes of groundwater where this is necessary to avoid significant drawdown impacts on existing groundwater takes from properly-constructed, efficient and fully-functioning *bores** in the vicinity. A groundwater take is considered to be from a properly-constructed, efficient and fully-functioning *bore** in circumstances where the *bore** penetrates the aquifer from which *water** is being drawn at a depth sufficient to enable *water** to be drawn all year (ie., the *bore** depth is below the range of

seasonal fluctuations in groundwater level), the pump and *bore** are adequately maintained, the *bore** is of sufficient diameter and is screened to reasonably minimise drawdown, and the *bore** has a pump capable of drawing *water** from its base to the *land** surface.

3. Consent *conditions*[^] specifying short-term restrictions on the rate and duration of pumping may also be imposed on new takes of groundwater where this is necessary to avoid significant drawdown impacts on existing *bores** that are not properly-constructed, efficient and fully-functioning, in order to allow sufficient time for such *bores** to be *upgraded** or replaced.
4. The Regional Council may encourage consent *applicants*[^] to consider the option of providing *water** to neighbouring properties in circumstances where this would be more practical than meeting the requirements of (2) or (3).

LF-TUD-P18: *Effects** of groundwater takes on surface *waterbodies**

The *effects** of groundwater takes on surface *waterbodies**, including *wetlands**, must be managed in the following manner:

1. An appropriate scientific method must be used to calculate the likely degree of connection between the groundwater and surface *water** at the location of the groundwater take.
2. Subject to (1), the potential adverse *effects** of groundwater takes on surface *water** depletion must be managed in accordance with Table 13.

Table 13 - Surface *water** depletion

Classification of Surface <i>Water*</i> Depletion <i>Effect*</i>	Magnitude of Surface <i>Water*</i> Depletion <i>Effect*</i>	Management Approach
Riparian	Any groundwater take screened within the geologically recent bed strata of a surface <i>waterbody*</i> .	The groundwater take is subject to the same restrictions as a surface <i>water*</i> take, unless there is clear hydrogeological evidence that demonstrates that the <i>effect*</i> of pumping will not impact on the surface <i>waterbody*</i> .
High	The surface <i>water*</i> depletion <i>effect*</i> is calculated as 90% or greater of the groundwater pumping rate after seven days of pumping, or 50% or greater of the average groundwater pumping rate after 100 days of pumping.	The groundwater take is subject to the same restrictions as a surface <i>water*</i> abstraction.
Medium	The surface <i>water*</i> depletion <i>effect*</i> is calculated as 20% or greater and less than 50% of the groundwater pumping rate after 100 days of pumping.	The calculated loss of surface <i>water*</i> is included in the surface <i>water*</i> allocation regime, but no specific minimum flow restrictions are imposed on the groundwater take.
Low	The surface <i>water*</i> depletion <i>effect*</i> is calculated as less than 20% of the groundwater pumping rate after 100 days of pumping.	The calculated loss of surface <i>water*</i> is not included in the surface <i>water*</i> allocation regime and no specific minimum flow restrictions are imposed on the groundwater take.

LF-TUD-P19: Saltwater intrusion

Saltwater intrusion along the coastal margins of the Region arising from groundwater takes must be managed by the following measures:

1. Consent *applicants*[^] wishing to take groundwater within 5 km of the coastal mean high water springs line must be required to carry out pumping tests and hydrogeological assessments in order to determine the level of drawdown at the coast and the likelihood of inducing saltwater intrusion.
2. In cases where saltwater intrusion might occur, the consent application may be declined or the amount of *water*^{*} that can be taken must be limited to an amount that restricts the likelihood of saltwater intrusion.
3. In addition, consents to take groundwater within 5 km of the coastal mean high water springs line must contain *conditions*^{*} relating to the monitoring of electrical conductivity and the restriction or suspension of takes if specified electrical conductivity thresholds are reached or exceeded. These monitoring requirements and electrical conductivity thresholds will be determined on a case-by-case basis.

LF-TUD-P20: Monitoring requirements of consent holders

Water^{*} takes must generally be subject to the following monitoring requirements:

1. the installation of a pulse-count capable *water*^{*} meter on all *water*^{*} takes that are allowed by way of a *resource consent*[^], in order to monitor the amount of *water*^{*} taken
2. the installation of a Regional Council compatible telemetry system on surface *water*^{*} takes greater than 750 m³/d, and on groundwater takes greater than 750 m³/d where the groundwater is highly interconnected with surface *water*^{*}
3. the installation of a Regional Council compatible telemetry system on other groundwater takes greater than 4,000 m³/d
4. Appropriate *water*^{*} quality monitoring, including conductivity monitoring on groundwater takes located within 5 km of the coast, or on a nearby monitoring *bore*^{*}
5. the installation of a Regional Council compatible telemetry system on consented surface *water*^{*} takes where:
 - a. the amount of *water*^{*} taken, when assessed in combination with all other *water*^{*} takes upstream, exceeds 15% of the estimated one-day mean annual low flow, or
 - b. the amount of *water*^{*} taken from a *Water Management Sub-area*^{*} as identified in RP-SCHED1 exceeds 15% of the one-day mean annual low flow for that *Sub-area*^{*}.

LF-TUD-P21: Transfer of *water permits*[^]

On the application of any consent holder, the transfer of a permit to take *water*^{*} will generally be approved in terms of s136(2)(b)(ii) of the RMA, providing:

1. the transferred take is exercised within the same *Water Management Area*^{*} as the original consent,

2. the rate and quantity of *water** taken are consistent with the provisions of RPS-AIR regarding the need for *water** and efficient use of *water**,
3. the transferred take complies with all relevant *water** allocation requirements of RPS-AIR at the site of transfer, and
4. there are no more than minor adverse *effects** on any other take or use of *water**.

Rules – takes and uses of *water**

The requirements specified in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 also apply, as rules, in addition to the following rules (including in relation to activities within and near *natural wetlands**). One Plan users must refer to the Regulations and they should be read in conjunction with the following rules. Where there is conflict between the provisions of the Regulations and any of the following rules, the more stringent provision will apply.

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
LF-TUD-R39 Minor takes and uses of surface <i>water*</i>	The take or use of surface <i>water*</i> pursuant to s14(2) and s14(3)(b) RMA.	Permitted	1. The rate of take must not exceed: a. 400 l/ha per day for animal farming up to a maximum of 30 m³/day per <i>property*</i> b. 15 m³/day per <i>property*</i> where the <i>water*</i> is for any other use. The rates of take allowed under (a) and (b) cannot be added: the maximum allowable rate of take under this rule is 30 m³/day per <i>property*</i>. 2. The rate of take must not exceed 2.0 l/s. 3. An intake screen with a mesh aperture size not exceeding 3 mm in diameter must be used and the intake velocity must not exceed 0.3 m/s. 4. The take must not be from a <i>rare habitat*</i>, <i>threatened habitat*</i> or <i>at-risk habitat*</i>. 5. The <i>water*</i> must be used on the <i>property*</i>. 6. The Regional Council must be notified in writing of the location of the take, the maximum instantaneous rate of take and the intended use of <i>water*</i>.	

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
LF-TUD-R40 Minor takes and uses of groundwater	The take or use of groundwater pursuant to s14(2) and s14(3)(b) RMA.	Permitted	- The rate of take must not exceed: 400 l/ha per day for animal farming up to a maximum of 50 m³/day per <i>property</i>* 50 m³/day per <i>property</i>* where the water is for any other use. The rates of take allowed under a. and b. cannot be added: the maximum allowable rate of take under this <i>rule</i>[^] is 50 m³/day per <i>property</i>* - The take must not be located within 50 m of any other <i>bore</i>* on any other <i>property</i>* - The take must not be located within 100 m of any <i>river</i>* or <i>lake</i>*, or within 200 m of any <i>wetland</i>* that is a <i>rare habitat</i>* or <i>threatened habitat</i>* - The take must not be from any <i>rare habitat</i>*, <i>threatened habitat</i>* or <i>at-risk habitat</i>* - The take must not lower the <i>water</i>* level in any <i>wetland</i>* that is a <i>rare habitat</i>* or <i>threatened habitat</i>* - There must be a means of controlling the rate of flow where a <i>bore</i>* would otherwise be free-flowing, and <i>water</i>* must not be allowed to run to <i>waste</i>. - The <i>water</i>* must be used on the <i>property</i>* - The Regional Council must be notified in writing of the location of the take, the maximum instantaneous rate of take and the intended use of <i>water</i>*	
LF-TUD-R41 Use of heat or energy from surface water*	The use of heat or energy from surface <i>water</i> * pursuant to s14(2) RMA.	Permitted		
LF-TUD-R42 Bore* and groundwater testing	The take and use of groundwater for <i>bore</i> * or groundwater testing purposes pursuant to s14(2) RMA, , as an <i>ancillary activity</i> *, any <i>discharge</i> * of groundwater or <i>contaminants</i> * into <i>water</i> * or onto or	Permitted	- The Regional Council must be notified in writing at least 5 <i>working days</i>[^] prior to commencement of the test. - The rate of take must not exceed 60 l/s. - The duration of any single test must not exceed 7 days.	

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
	into <i>land</i> * pursuant to ss15(1) or 15(2A) RMA.		4. The activity must be carried out in accordance with the NZS 4411:2001 Environmental Standard for Drilling of Soil and Rock. 5. The take must not be from any <i>rare habitat</i>*, <i>threatened habitat</i>* or <i>at-risk habitat</i>*. 6. The take must not lower the <i>water</i>* level in any <i>wetland</i>* that is a <i>rare habitat</i>* or <i>threatened habitat</i>*. 7. Where the <i>discharge</i>* is into <i>water</i>* the <i>discharge</i>* must not: a. change the receiving <i>water</i>* temperature by more than 3°C after <i>reasonable mixing</i>* b. cause erosion of the <i>bed</i>* of the receiving <i>waterbody</i>* c. alter the natural course of the receiving <i>waterbody</i>* d. cause visibly noticeable iron flocculation in the receiving <i>waterbody</i>*. 8. Where the <i>discharge</i>* is onto <i>land</i>* the <i>discharge</i>* must not increase <i>land</i>* instability or the risk of erosion. 9. The <i>discharge</i>* must not cause or contribute to flooding on any other <i>property</i>*. 10. Following completion of the test, the <i>bore</i>* must be covered and secured as soon as practicable. 11. Records of all pumping and recovery tests must be kept by the <i>owner</i>^, including the location of the pumped <i>bore</i>* and any monitoring <i>bores</i>*, the flow rate during pumping, the <i>water</i>* level at the pumped <i>bore</i>* and any monitoring <i>bores</i>*, and the time at which all measurements are taken. These records must be forwarded to the Regional Council within 1 month of completion of the tests.	
LF-TUD-R43 Takes and uses of surface water* complying with core allocations	Except as permitted by RP-LF-TUD-R39, the take or use of surface <i>water</i>* from a <i>river</i>* pursuant to s14(2) RMA. Advice Note: Information regarding the volume of core allocation that is still available	Controlled	1. <i>Water</i>* must only be taken when the <i>river</i>* is above its minimum flow, as assessed in accordance with RP-SCHED3. 2. The amount of <i>water</i>* taken, when assessed in combination with all other <i>water</i>* takes must not exceed the relevant cumulative core allocation limits set out in RP-SCHED3. 3. The amount of <i>water</i>* taken from a <i>river</i>* must not lower the <i>water</i>* level in any <i>wetland</i>* that is a <i>rare habitat</i>* or <i>threatened habitat</i>*.	Control is reserved over: 1. the volume and rate of <i>water</i>* taken, and the timing of the take 2. the location of take 3. intake velocity and screening requirements

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
	may be found on the Regional Council's website.		4. The take must not be from any <i>rare habitat*</i> , <i>threatened habitat*</i> or <i>at-risk habitat*</i> .	4. measures to avoid, remedy or mitigate any adverse <i>effects*</i> on the Values of the <i>waterbody*</i> at and below the point of take 5. <i>effects*</i> on the natural flow regime, the magnitude of the median flow and the frequency of flushing flows 6. the efficiency of <i>water*</i> use 7. <i>effects*</i> on other <i>water*</i> takes 8. <i>effects*</i> on <i>rare habitats*</i> , <i>threatened habitats*</i> , <i>at-risk habitats*</i> and Sites of Significance - Aquatic 9. compliance with minimum flow requirements 10. duration of consent 11. review of consent <i>conditions</i> [^] 12. compliance monitoring. <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).
LF-TUD-R44 Replacement consents for takes	The take, use or diversion of surface <i>water*</i> pursuant to s14(2) RMA by existing consented hydroelectricity	Controlled	1. The consent application is to replace existing consents that are expiring and there is no increase to the existing volume or rate of take or diversion.	Control is reserved over:

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
and uses of surface water* by existing hydroelectricity schemes	generation schemes for which replacement consents are sought.		2. The take must not be from any <i>rare habitat*</i> , <i>threatened habitat*</i> or <i>at-risk habitat*</i> .	1. the volume and rate of <i>water*</i> taken and the timing of the take 2. the location of take 3. intake velocity and screening requirements 4. measures to avoid, remedy or mitigate any adverse <i>effects*</i> on the Values of the <i>waterbody*</i> at and below the point of take 5. measures to avoid, remedy or mitigate any adverse <i>effects*</i> on the instream geomorphological components of natural character of the <i>waterbody*</i> 6. <i>effects*</i> on <i>rare habitats*</i>, <i>threatened habitats*</i> and <i>at-risk habitats*</i> and Sites of Significance - Aquatic 7. compliance with minimum flows 8. measures to avoid, remedy or mitigate adverse <i>effects*</i> on <i>tangata whenua</i>[^] matters 9. duration of consent 10. review of consent <i>conditions</i>[^] 11. compliance monitoring.

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
				Resource consent applications under this rule will be notified to those parties who are adversely affected in relation to the matters over which control is reserved. This clause does not preclude full public notification at the council's discretion in accordance with the RMA.
LF-TUD-R45 Existing essential takes and uses of surface water* complying with core allocations taken at or below the minimum flow	Except as regulated by RP-LF-TUD-R39 or RP-LF-TUD-R43, the take, use or diversion of surface <i>water*</i> pursuant to s14(2) RMA at or below the minimum flow by essential takes complying with RPS-LF-FW-P22(4) (a) existing as at 31 May 2007 provided: - The amount of <i>water*</i> taken must not exceed 250 litres per person per day for domestic needs 70 litres per animal per day for drinking <i>water*</i> 70 litres per animal per day for existing dairy shed washdown - The take must not be from any <i>rare habitat*</i>, <i>threatened habitat*</i> or <i>at-risk habitat*</i>. Advice note: the <i>effect*</i> of any permitted takes will not be taken into consideration when assessing activities under this rule.	Discretionary		

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
LF-TUD-R46 Other takes and uses of water*	The take or use of surface <i>water*</i> or groundwater pursuant to s14(2) RMA, which is not regulated by any other <i>rules^</i> in this chapter or which does not comply with the <i>permitted activity^</i> or <i>controlled activity^ rules^</i> in this chapter, or the take or use of groundwater at a rate exceeding 50 m ³ /day per <i>property*</i> , except takes for <i>bore*</i> or groundwater testing permitted under RP-LF-TUD-R42.	Discretionary		
LF-TUD-R47 Takes and uses of surface water* not complying with core allocations or takes and uses of water* taken at or below minimum flow	Except as regulated by RP-LF-TUD-R39, RP-LF-TUD-R44 or RP-LF-TUD-R46, the take or use of surface <i>water*</i> from a <i>river*</i> pursuant to s14(2) RMA: 1. which, when assessed in combination with all other <i>water*</i> takes, exceeds the relevant cumulative core allocation limits set out in RP-SCHED3, or 2. which is taken at or below the minimum flow (unless the take is a permitted or essential take complying with RP-LF-TUD-R45) This rule does not include takes in circumstances where <i>water*</i> is only taken when the river flow is greater than the median flow (these are a discretionary activity under RP-LF-TUD-R46). Advice Note: Information regarding the volume of cumulative core allocation that is still	Non-complying		

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
	available may be found on the Regional Council's website.			

Rule guide:

Takes or uses of *water** from *rare habitats**, *threatened habitats** or *at-risk habitats** are regulated by RP-ECO-R1 and RP-ECO-R2.

Takes or uses of *water** from *water** storage facilities that are not within a *waterbody** do not require a resource consent.

Rules – diversions of *water** including drainage

The requirements specified in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 also apply, as rules, in addition to the following rules (including in relation to activities within and near *natural wetlands**). One Plan users must refer to the Regulations and they should be read in conjunction with the following rules. Where there is conflict between the provisions of the Regulations and any of the following rules, the more stringent provision will apply.

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
LF-TUD-R48 Lawfully established diversions, including existing drainage	The take, diversion or <i>discharge*</i> of surface <i>water*</i> and, as an <i>ancillary activity*</i> , any damming of <i>water*</i> , or <i>discharge*</i> of sediment or other <i>contaminants*</i> in the <i>water*</i> into <i>water*</i> or onto or into <i>land*</i> pursuant to s14(2) and ss15(1) or 15(2A) RMA arising from: - a diversion that was lawfully established as at the date of this <i>rule^</i> becoming <i>operative^</i>, or - a diversion that has been lawfully established by way of <i>resource consent^</i> after the <i>operative^</i> date of this <i>rule^</i>	Permitted	- The diversion or <i>discharge*</i> must be to the same <i>Water Management Sub-area*</i> to which the <i>water*</i> would naturally flow, except diversions associated with existing <i>land*</i> drainage. <i>Effects*</i> on <i>land*</i> instability, erosion risk, flooding and soil resources (including drained peat soils) must remain the same as or similar in character, intensity and scale to those which existed before this <i>rule^</i> became <i>operative^</i>. - The diversion must not prevent the passage of fish in <i>waterbodies*</i> containing fish. - For diversions lawfully established by way of a <i>resource consent^</i>, the diversion must continue to comply with all <i>conditions^</i> of the consent.	

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
	including, as an <i>ancillary activity</i>*, diversions to the <i>operation</i>* of existing drainage networks. Advice Note: This <i>rule</i>[^] means that, once diversions have been lawfully established, including diversions for <i>land</i>* drainage purposes, their continued <i>operation</i>* is permitted under this <i>rule</i>[^]. No ongoing consent is required for the <i>operation</i>* of existing diversions provided the <i>conditions</i>[^] of this <i>rule</i>[^] are met.			
LF-TUD-R49 New drainage	The take, diversion or <i>discharge</i> * of drainage <i>water</i> *, and, as an <i>ancillary activity</i> *, any damming of <i>water</i> *, or <i>discharge</i> * of sediment or other <i>contaminants</i> * in the drainage <i>water</i> * into <i>water</i> * or onto or into <i>land</i> * pursuant to s14(2) and ss15(1) or 15(2A) RMA arising from the establishment and <i>operation</i> * of new <i>land</i> * drainage.	Permitted	1. The diversion or <i>discharge</i>* must not cause or exacerbate the flooding of any <i>property</i>*, unless the flooding is in accordance with an approved Regional Council drainage scheme design. 2. The diversion or <i>discharge</i>* must not cause any scouring or erosion of any <i>land</i>* or <i>waterbody</i>* beyond the point of <i>discharge</i>*. 3. The diversion or <i>discharge</i>* must not alter the natural course of any natural <i>waterbody</i>*. 4. There must be no diversion or <i>discharge</i>* to or from any natural <i>lake</i>[^], <i>rare habitat</i>*, <i>threatened habitat</i>* or <i>at-risk habitat</i>*, or reach of <i>river</i>* or its <i>bed</i>* with a RP-SCHED2 Value of Natural State. 5. The activity must not result in the lowering of <i>water</i>* levels in any <i>wetland</i>* that is a <i>rare habitat</i>* or <i>threatened habitat</i>*. 6. The diversion or <i>discharge</i>* must be to the same <i>Water Management Area</i>* to which the drainage <i>water</i>* would naturally flow. 7. The diversion or <i>discharge</i>* must not cause, after <i>reasonable mixing</i>*, any of the following <i>effects</i>* in the receiving <i>waterbody</i>*: a. the production of conspicuous <i>oil</i>* or grease films, scums or foams, or floatable or suspended materials	

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
			b. any conspicuous change in the colour or visual clarity of the receiving <i>water</i>* c. any emission of objectionable odour d. the rendering of <i>fresh water</i>* unsuitable for consumption by farm animals e. the natural temperature of the receiving <i>water</i>* to change by more than 3°C f. toxicity to aquatic ecosystems. 8. The diversion or <i>discharge</i>* must not, after <i>reasonable mixing</i>*, cause the dissolved oxygen of the receiving <i>waterbody</i>* to fall below 80% saturation concentration, unless the dissolved oxygen is already below this limit in which case the <i>discharge</i>* must not lower it further. 9. The activity must not be to any <i>historic heritage</i>* identified in any <i>district plan</i>[^] or <i>regional plan</i>[^].	
LF-TUD-R50 New diversions	The following activities where they are associated with the establishment and <i>operation</i>* of a new diversion, except as expressly provided for by other <i>rules</i>[^] within this Plan: 1. the take, diversion or <i>discharge</i>* of <i>water</i>* and, as an <i>ancillary activity</i>*, any damming of <i>water</i>* pursuant to s14(2) and ss15(1) or 15(2A) RMA 2. as an <i>ancillary activity</i>*, any <i>discharge</i>* of sediment or other <i>contaminants</i>* in the <i>water</i>* into <i>water</i>* or onto or into <i>land</i>* pursuant to ss15(1) or 15(2A) RMA 3. as an <i>ancillary activity</i>*, any excavation or disturbance of the <i>bed</i>* of a <i>river</i>* pursuant to ss13(1) and 13(2) RMA.	Permitted	1. The activity must involve: a. a diversion of groundwater, b. a diversion from or within an <i>artificial watercourse</i>*, c. a diversion from or within an existing drain that is within the RMA definition of "<i>river</i>[^]", or d. a diversion wholly contained within the <i>bed</i>* of a <i>river</i>* provided the diversion is no more than two times the <i>bed</i>* width of the <i>river</i>* in any 2 km length of <i>river</i>[^] in any 12 month period and must not exceed a length of 20 metres. 2. The activity must not involve the diversion of <i>water</i>* associated with new drainage which is regulated under RP-LF-TUD-R49. 3. The diversion must not be located within 200 m of any <i>wetland</i>* that is a <i>rare habitat</i>* or <i>threatened habitat</i>* and must not lower the <i>water</i>* level in any <i>wetland</i>* that is a <i>rare habitat</i>* or threatened habitat*. 4. The diversion must not be to or from any <i>rare habitat</i>*, <i>threatened habitat</i>* or <i>at-risk habitat</i>*.	

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
			5. The diversion must not increase <i>land*</i> instability or the risk of erosion. 6. The diversion must not cause or contribute to flooding on any other <i>property*</i> . 7. The diversion must not adversely affect any lawfully established <i>water*</i> take or use which existed at the time that the diversion commenced. 8. The diversion must not prevent the passage of fish in <i>waterbodies*</i> containing fish. 9. The diversion must not be undertaken where any <i>infrastructure^</i> is located in, on, under or over the <i>bed*</i> within 1 km upstream or downstream of the diversion. 10. Any realigned <i>bed*</i> must have at least the same capacity as the original <i>bed*</i> to carry the diverted flow. 11. For diversions of surface <i>water*</i> from an <i>artificial watercourse*</i> or drain, the diverted <i>water*</i> must not cause a reduction in the <i>water*</i> quality of any downstream <i>waterbody*</i> . 12. As an <i>ancillary activity*</i> , any <i>discharge*</i> of sediment must not, after <i>reasonable mixing*</i> , cause a conspicuous change in the colour or visual clarity of the receiving <i>water*</i> . 13. The construction of a new diversion located within a <i>river*</i> must comply with the general <i>conditions^</i> listed in Section 17.3 Table 15.	
LF-TUD-R51 Diversions that do not comply with permitted activity^ and controlled activity^ rules^	Any diversion pursuant to s14(2) RMA that does not comply with one or more <i>conditions^</i> , standards or terms of a <i>permitted activity^</i> or <i>controlled activity^</i> in this chapter, but which is not expressly classified as a discretionary <i>activity^</i> , or <i>prohibited activity^</i> .	Discretionary	1. The diversion must not be to or from any <i>rare habitat*</i> , <i>threatened habitat*</i> or <i>at-risk habitat*</i> .	

Rule Guide:

Diversions in *rare habitats**, *threatened habitats** and *at-risk habitats** are regulated by RP-ECO-R1 and RP-ECO-R2.

Diversions of surface *water** allocated to existing consented hydroelectricity generation schemes are dealt with in RP-LF-TUD-R44.

Rules – *bore** drilling and *bore** sealing

The requirements specified in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 also apply, as rules, in addition to the following rules (including in relation to activities within and near *natural wetlands**). One Plan users must refer to the Regulations and they should be read in conjunction with the following rules. Where there is conflict between the provisions of the Regulations and any of the following rules, the more stringent provision will apply.

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
LF-TUD-R52 The drilling, construction or alteration of any <i>bore*</i> and, as an ancillary activity*, any discharge* of water* or contaminants*	The drilling, construction or alteration of any <i>bore*</i> pursuant to s9(2) RMA that extends below the seasonally highest groundwater level and, as an <i>ancillary activity*</i> , any <i>discharge*</i> of <i>water*</i> or <i>contaminants*</i> into <i>water*</i> or onto <i>land*</i> pursuant to ss15(1) or 15(2A) RMA.	Controlled	1. The activity must not be within any <i>rare habitat*</i> , <i>threatened habitat*</i> or <i>at-risk habitat*</i> .	Control is reserved over: 1. compliance with the NZS 4411:2001 Environmental Standard for Drilling of Soil and Rock and any other relevant standard 2. <i>bore*</i> location, size (including diameter of the <i>bore*</i> casing) and depth 3. <i>bore*</i> screening depth and type 4. backflow prevention 5. information requirements including <i>bore*</i> logs, piezometric levels, groundwater tests, and <i>bore*</i> construction details 6. duration of consent 7. review of consent <i>conditions</i> [^] 8. compliance monitoring 9. the matters in RP-LF-LW-P12.

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
				Resource consent applications under this rule 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).
LF-TUD-R53 Unsealed bores*	Pursuant to ss9(2), 14(2), 15(1) or 15(2A) RMA any <i>bore*</i> that: 1. is no longer used and is unsealed, or 2. is in use and is constructed in a manner that allows <i>contaminants*</i> to enter the <i>bore*</i> from the <i>land*</i> surface, or allows the wastage of <i>water*</i> in artesian situations.	Prohibited		

Rule Guide:

The drilling, construction or alteration of any *bore** and, as an *ancillary activity**, any *discharge** of *water** or *contaminants** in *rare habitats**, *threatened habitats** and *at-risk habitats** is regulated by RP-ECO-R1 and RP-ECO-R2.

LF – AWBD – Activities in *artificial watercourses**, *beds* of rivers** and *lakes**, and damming

Objectives

LF-AWBD-O5: Regulation of *structures** and activities in *artificial watercourses** and in the *beds* of rivers** and *lakes**, and damming

The regulation of *structures** and activities in *artificial watercourses** and in the *beds* of rivers** and *lakes**, and damming, in a manner that:

1. safeguards life supporting capacity, and recognises and provides for the Values and management objectives in RP-SCHED2, and
2. has regard to the objectives and policies of RPS-AIR that relate to *structures** and activities in *artificial watercourses** and in the *beds* of rivers** and *lakes**, and damming.

LF-AWBD-O6: Fish passage

The passage of fish is maintained, or is improved, by instream *structures^*, except where it is desirable to prevent the passage of some fish species in order to protect desired fish species, their life stages, or their habitats.

Policies

LF-AWBD-P22: Consent decision-making for activities in, on, under or over the *beds* of rivers** and *lakes** (including modified watercourses but excluding *artificial watercourses**)

When making decisions on *resource consent^* applications, and setting consent *conditions^*, for activities in, on, under or over the *bed^* of a *river^* or *lake^* (including modified watercourses but excluding *artificial watercourses**) the Regional Council must:

1. have regard to the extent to which the activity is consistent with best management practices,
2. seek to avoid where reasonably practicable any adverse *effects** on any other lawful activity in, on, under or over the *bed* of the river* or lake**, including existing *structures**,
3. have regard to whether the activity is of a temporary nature or is associated with necessary *maintenance** work,

4. have regard to the objectives and policies of RPS-RMIA, RPS-EIT, RPS-LF, RPS-ECO, RPS-HCV, RPS-NATC, RPS-NFL, RPS-HAZ, and RP-IP to the extent that they are relevant to the activity, and
5. have regard to the matters in RP-LF-LW-P12.

LF-AWBD-P23: Consent decision-making for activities in *artificial watercourses**

When making decisions on *resource consent*^ applications, and setting consent *conditions*^, for activities on *land** in an *artificial watercourse** the *Regional Council* must:

1. have regard to the purpose for which the *artificial watercourse** was established,
2. in circumstances where the *artificial watercourse** joins a *river** or *lake**, have regard to the policies relating to the *beds** of *rivers** and *lakes** in Section 5.4.4,
3. seek to avoid, remedy or mitigate adverse *effects** on any significant ecosystems intrinsic to the *artificial watercourse**,
4. manage the activity in accordance with (1), (3) and (4) of RP-LF-AWBD-P22, and
5. have regard to the matters in RP-LF-LW-P12.

LF-AWBD-P24: Gravel extraction

Having regard to RPS-LF-FW-P25 to RPS-LF-FW-P28, activities in, on, under or over the *beds** of *rivers** and *lakes** that enable gravel extraction will generally be allowed provided that:

1. The long term average annual volume of gravel available for extraction from those *rivers** and *river** reaches listed in Table 14 must be limited to the quantities stated in the table, unless:
 - a. there is a demonstrable *river** management need to increase or decrease this volume, or
 - b. the gravel extraction is necessary to decrease the risk of flooding or damage to *structures**, or
 - c. future information establishes that actual sustainable rates of gravel extraction are higher or lower than those in Table 14 taking into account the cumulative volumes being extracted, the natural rates of replenishment and the *effects**, including cumulative *effects**, of extraction.
2. For any *river**^ or *river**^ reach not specified in Table 14, the *effects**^ of the cumulative volume of gravel being extracted on an annual basis in the *river**^ reaches must be considered, including matters in relation to:
 - a. the natural rates of gravel replenishment,
 - b. the *effects**, including cumulative *effects**, of the gravel extraction,
 - c. demonstrable *river** management needs, and

d. the need to decrease the risk of flooding or damage to *structures**.

3. For the purposes of this policy “annual” is defined as 1 July to 30 June the following year.

Table 14 - Long term average annual allocable volumes of gravel

River or Reach	Volume (m³)
Kawhatau River	20,000
Makino Stream	3,000
Mākuriiti Stream	3,000
Manawatū River	
• From 1 km upstream of Ngawapurua Bridge to source	20,000
• 1 km upstream to 2.5 km downstream of Ngawapurua Bridge	No extraction
• 2.5 km downstream of Ngawapurua Bridge to Ballance Bridge	15,000
• Manawatū Gorge to Karere Rd	2,500
• Karere Rd to Hamilton's Line	15,000
• Hamilton's Line to Ōroua confluence [2007 to 2009]	20,000
• Hamilton's Line to Ōroua confluence [2009 onwards] the 2 km aggrading reach between 39 Miles (NZMS 260 S24:212-832) and Benchmark 643 (NZMS 260 S24:226-830)	17,500
• Hamilton's Line to Ōroua confluence [2009 onwards] the 2 km aggrading reach between BM 604 (NZMS 260 S24:206-833) and BM 622 (NZMS 260 S24:207-826)	35,000
Mangahao River	15,000
Mangatainoka River	15,000
Ōhau River	
• Upstream of a point 1 km above SH 1 bridge	5,000
• Downstream of a point 1 km above SH 1 bridge	10,000
Ōroua River	
• Upstream of Menzies Ford	10,000
• Downstream of Menzies Ford	55,000
Pohangina River	25,000
Rangitikei River	
• Makahikatoa Stream to Mangarere Road bridge	15,000
• Mangarere Road bridge to Rewa	25,000

River or Reach	Volume (m³)
• Rewa to 7 km downstream of SH 1 bridge	30,000
• 7 km downstream of SH 1 bridge to mouth	100,000
South East Ruahine Streams	
• Kūmeti	3,000
• Mangaatua	5,000
• Mangapapa	2,000
• Mangatera	500
• Mangatewaiiti	2,000
• Mangatewainui	4,000
• Ōruakeretaki	5,000
• Otamaraho	2,000
• Otamarahu	1,000
• Rokaiwhana	10,000
• Raparapawai	3,000
• Tamaki	20,000
Turakina River	3,000
Whangaehu River	8,000
Whanganui River	7,000

LF-AWBD-P25: Rivers*

The loss of river[^] extent and values is avoided, unless the Regional Council is satisfied that:

1. there is a *functional need** for the activity in that location; and
2. the effects of the activity are managed by applying the *effects management hierarchy**.

General conditions for permitted activities and controlled activities involving the *beds** of *rivers** and *lakes**

The table below sets out general conditions for activities involving the *beds** of *rivers** and *lakes**. These general conditions are referred to in a number of the permitted activity and controlled activity rules in this chapter. The table sets out general conditions for all *rivers** and *lakes** under the Value of Life-supporting Capacity (this Value applies to all *rivers** and *lakes** as shown in RP-SCHED2). It then sets out additional conditions for other Values that apply to specific reaches of *rivers**, as listed in RP-SCHED2. RP-SCHED2 must be referred to in order to identify the locations of the *Water Management Sub-areas** to which these other Values apply, and whether they are therefore relevant to a particular activity.

The requirements specified in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 also apply, in addition to the following conditions. One Plan users must refer to the Regulations and they should be read in conjunction with the following conditions. Where there is conflict between the provisions of the Regulations and any of the following conditions, the more stringent requirement will apply.

Table 15 - General conditions[^] for permitted activities[^] and controlled activities[^] involving the beds* of rivers* and lakes*

Value	Condition
Life-supporting Capacity conditions [^] which apply to all waterbodies* and their beds*	1. The activity must not adversely reduce the ability of the waterbody* or its bed* to convey flood flows, floating debris or sediment, except for a period of not more than 12 consecutive hours during construction. 2. There must be no discharge* of contaminants*, other than sediment and other contaminants* inherent to the water* or bed*, into the river* or lake* except where the discharge* is explicitly allowed by the activity description of a rule[^] in this chapter. 3. Any discharge* of sediment into water* directly caused by the activity, that causes the visual clarity standards in RP-SCHED5 to be breached, must not be undertaken for more than 24 hours in total across 5 consecutive days. There must be no more than one activity per river* per property* in any 12 month period. 4. Any discharge* of sediment into water* under (3) must not, after reasonable mixing*, cause any conspicuous change in the colour of water* in the receiving water* or any change in horizontal visibility greater than the target set in the visual clarity % change column of RP-SCHED5, more than 12 hours after completion of the activity. 5. Any materials used must be necessary for the activity and must not be toxic to aquatic ecosystems. 6. Any materials no longer required as part of the activity, including any temporary structures*, must not be stored in or on the bed* of any river* or lake* and must be removed after completion of the activity. 7. Refuelling of machinery must not take place in any area where spills may enter surface water*. 8. The activity must be undertaken in a manner that provides for the safe passage of fish both upstream and downstream, including past any structure*. 9. Any diversion of water* required for works, as an ancillary activity*, to a structure* must be temporary, must be within the bed* of the river*, must not exceed 100 m in length, must not be between catchments, must not involve a lake*, and the diversion channel must have sufficient capacity to carry the same flow as the original channel. 10. Upon completion of any channel bank works, the banks must be reinstated to a natural contour and revegetated. 11. Any straightening or channelling of a river* must not exceed a length equal to two times the bed* width of the river* in any 2 km length of river* in any 12 month period. 12. There must be no removal of instream woody debris less than 2 m³ in size unless this is required to reduce the risk of flooding or erosion.
Riparian (applies to all reaches in waterbodies* and their beds* with a RP-SCHED2 Value of Sites of Significance - Riparian)	13. For the purpose of minimising disturbance to nesting dotterels 1 August to 31 December (inclusive), gravel extraction and bed* disturbance on gravel beaches must only take place: a. within 7 days following a flood of the area of beach that is the subject of the activity, or b. where the extraction or disturbance commenced at the same location prior to 1 August and has not been interrupted for more than 7 days.
Inanga Spawning	14. The use of mobile machinery in or on the bed* of a river* or lake* in a manner that disturbs the bed* must not take place 1 February to 1 May (inclusive).

Value	Condition
(applies to all reaches in <i>water bodies</i> * and their <i>beds</i> * with a RP-SCHED2 Value of Inanga Spawning)	
<i>Whitebait</i> * Migration (applies to all reaches in <i>waterbodies</i> * and their <i>beds</i> * with a RP-SCHED2 Value of <i>Whitebait</i> * Migration)	15. The use of mobile machinery in or on the <i>bed</i> * of a <i>river</i> * or <i>lake</i> * in a manner that disturbs the <i>bed</i> * of the active flowing channel must not take place 15 August to 30 November (inclusive).
Trout Spawning (applies to all surface water management areas and their <i>beds</i> * with a RP-SCHED2 reach Value of Trout Spawning for this provision)	16. The use of mobile machinery in or on the <i>bed</i> * of a <i>river</i> * or <i>lake</i> * in a manner that disturbs the <i>bed</i> * of the active flowing channel must not take place 1 May to 30 September (inclusive).
Trout Fishery (applies to all reaches in <i>waterbodies</i> * and their <i>beds</i> * with a RP-SCHED2 Value of Trout Fishery)	17. Activities must not result in suspended sediment that causes the visual clarity standards in RP-SCHED5 to be breached during Saturdays, Sundays and public holidays 1 December to 28 February (inclusive).
Contact Recreation (applies to all reaches in <i>waterbodies</i> * and their <i>beds</i> * with a RP-SCHED2 Value of Contact Recreation)	18. Existing public access to or along a <i>river</i> * or <i>lake</i> * must not be rendered unsafe by the activity. 19. Existing public access to or along a <i>river</i> * or <i>lake</i> * may be rendered unavailable where this is necessary for public safety or for the purpose of undertaking the activity, provided the public access is re-opened as soon as practicable. 20. Activities must not result in suspended sediment that causes the visual clarity standards in RP-SCHED5 to be breached at reaches with a RP-SCHED2 Value of Contact Recreation, during Saturdays, Sundays and public holidays 1 December to 28 February (inclusive).
Existing <i>Infrastructure</i> [^]	21. Excavation, drilling, tunnelling or other disturbance of the <i>bed</i> * of a <i>river</i> * must not take place within 500 m upstream or downstream of any flow-recording site. ⁶ 22. Excavation, drilling, tunnelling or other disturbance of the <i>bed</i> * of a <i>river</i> * must not take place within 20 m upstream or downstream of a high pressure gas transmission pipeline identified by a <i>district plan</i> [^] or <i>regional plan</i> [^] or by a marker ⁷ on the bank of the <i>river</i> *.

⁶ Further information on the location of flow-recording sites can be obtained by either visiting the Regional Council's website (www.horizons.govt.nz) or by contacting the Regional Council's Hydrology Department.

⁷ High pressure transmission gas pipelines are normally indicated by white triangle marker posts or yellow pipeline warning signs. If you are unsure about a pipeline being present, please contact your *Territorial Authority**.

Rules – special *river** and *lake**

The requirements specified in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 also apply, in addition to the following conditions. One Plan users must refer to the Regulations and they should be read in conjunction with the following conditions. Where there is conflict between the provisions of the Regulations and any of the following conditions, the more stringent requirement will apply.

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
LF-AWBD-R54 Structures* and disturbances involving a reach of <i>river</i>* or its <i>bed</i>* with RP-SCHED2 Values of Natural State, Sites of Significance - Aquatic and Sites of Significance - Cultural	Except as prohibited by RP-LF-AWBD-R56 any of the following activities pursuant to s13(1) RMA within: 1. a reach of <i>river</i>* or its <i>bed</i>* with a RP-SCHED2 Value of Natural State a. The erection, placement or extension of any <i>structure</i>* in, on, under or over the <i>bed</i>* except for lines, cables and ropeways that are suspended above the <i>water</i>* and do not require a support <i>structure</i>* in, on, over or under the <i>bed</i>* of the <i>river</i>* b. Any excavation, drilling, tunnelling or other disturbance of the <i>bed</i>* including gravel extraction - and, as an <i>ancillary activity</i>*, any: a. damming or diversion of <i>water</i>* pursuant to s14(2) RMA b. <i>discharge</i>* of <i>water</i>* or sediment into <i>water</i>* or onto or into <i>land</i>* pursuant to ss15(1) or 15(2A) RMA c. deposition of substances in or on the <i>bed</i>* pursuant to s13(1). 2. Sites of Significance - Aquatic and Sites of Significance - Cultural a. The erection, placement or extension of any <i>structure</i>* in, on, under or over	Discretionary		

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
	the <i>bed*</i>, except for lines, cables and ropeways that are suspended above the <i>water*</i> and do not require a support <i>structure*</i> in, on, over or under the <i>bed*</i> and except for those activities regulated by RP-LF-AWBD-R67 b. Any excavation, drilling, tunnelling or other disturbance of the <i>bed*</i>, except for those activities regulated by Rules RP-LF-AWBD-R58 and RP-LF-AWBD-R67 and, as an <i>ancillary activity*</i>, any: a. damming or diversion of <i>water*</i> pursuant to s14(2) RMA b. <i>discharge*^</i> of <i>water*</i> or sediment into <i>water*</i> or onto or into <i>land*</i> pursuant to ss15(1) or 15(2A) RMA c. deposition of substances in or on the <i>bed*</i> pursuant to s13(1).			
LF-AWBD-R55 Reclamation and drainage of regionally significant lakes*	Any reclamation or drainage of the <i>bed*</i> of the following <i>lakes*</i> pursuant to s13(1) RMA, excluding any existing (as at 31 May 2007) reclamations and drainage: 1. Lake Horowhenua 2. Lake Papaitonga 3. Pukepuke Lagoon and, as an <i>ancillary activity*</i>: a. excavation, drilling, tunnelling or other disturbance of the <i>bed*</i> pursuant to s13(1) RMA b. damming or diversion of <i>water*</i> pursuant to s14(2) RMA	Non-complying		

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
	c. <i>discharge*</i> of <i>water*</i> or sediment into <i>water*</i> or onto or into <i>land*</i> pursuant to ss15(1) or 15(2A) RMA d. deposition of substances in or on the <i>bed*</i> pursuant to s13(1).			
LF-AWBD-R56 Damming of protected rivers*	The erection or placement of a dam <i>structure*</i> pursuant to s13(1) RMA in or on the <i>bed*</i> of the following <i>rivers*</i>, and , as an <i>ancillary activity*</i>, any damming of <i>water*</i> pursuant to s14(2) RMA: 1. the Manganui o te Ao River and its tributaries, the Makatote River, the Mangaturuturu River, the Waimarino Stream and the Orautoha Stream 2. the Rangitikei River itself and all its tributaries above the confluence of the Makahikatoa Stream, the Rangitikei River itself from the confluence of the Makahikatoa Stream to the Mangarere Bridge, the Whakaurekau River and all its tributaries and the Kawhatau River and all its tributaries, namely the Pouranaki River and the Mangakokeke Stream 3. the Hautapu River above its confluence with the Oraukura Stream and its tributaries, the Irirangi Stream and the Waiouru Stream	Prohibited		

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
	4. the main stem of the Mākuri River and the Mākuri-iti Stream 5. the Mangatainoka River and its tributaries, the Mākākahi River (and its Bruce Stream tributary), the Mangaroa, Mangamaire, Makotukutuku and Mangaraupiu Streams, and an unnamed tributary entering the Mangatainoka River at map reference NZMS 260 T25:368-654 6. the main stem of the Whanganui River from its source at map reference NZMS 260 T19:383-286 to the boundary of the coastal marine area, and the main stem of the Whakapapa River and the main stems of its tributaries the Whakapapaiti and Whakapapanui Streams 7. the main stem of the Manawatū River through the Manawatū Gorge from the Ballance Bridge to the confluence of the Pohangina and Manawatū Rivers 8. the main stem of the Pohangina River from its source to its confluence with the Manawatū River near the Manawatū Gorge 9. the main stem of the Ōroua River from its source to its confluence with the Mangoira Stream at map reference NZMS 260 T22:578-378.			

Rules – use, *maintenance**, *upgrade**, removal and demolition of *structures**

The requirements specified in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 also apply, in addition to the following conditions. One Plan users must refer to the Regulations and they should be read in conjunction with the following conditions. Where there is conflict between the provisions of the Regulations and any of the following conditions, the more stringent requirement will apply.

Rule	Activity	Classification	Conditions /Standards/Terms	Control/Discretion Non-Notification
LF-AWBD-R57 Use of <i>structures*</i>	The use of a <i>structure*</i> located in, on, under or over the <i>bed*</i> of a <i>river*</i> or <i>lake*</i> pursuant to s13(1) RMA, and , as an <i>ancillary activity*</i>, any: 1. damming or diversion of <i>water*</i> pursuant to s14(2) RMA, excluding the damming of <i>water*</i> associated with dam <i>structures*</i> (which is regulated by RP-LF-AWBD-R60 and RP-LF-AWBD-R61 2. <i>discharge*</i> of <i>water*</i> or sediment into <i>water*</i> or onto or into <i>land*</i> pursuant to ss15(1) or 15(2A) RMA. Advice Note: For the avoidance of doubt, this <i>rule</i>[^] includes the “use” of a dam <i>structure*</i>, but excludes the damming of <i>water*</i> by a dam <i>structure*</i> (under s14(2) RMA).	Permitted		
LF-AWBD-R58 <i>Maintenance*</i> and <i>upgrade*</i> of <i>structures*</i>, and , as an <i>ancillary activity*</i>, any removal of <i>bed*</i> material and plants	1. <i>Structures*</i> - The <i>maintenance*</i> or <i>upgrade*</i> of a <i>structure*</i> located in, on, under or over the <i>bed*</i> of a <i>river*</i> or <i>lake*</i> pursuant to s13(1) RMA, and , as an <i>ancillary activity*</i>, any: a. excavation, drilling, tunnelling or other disturbance of the <i>river*</i> or <i>lake*</i> <i>bed*</i> pursuant to s13(1) RMA b. damming or diversion of <i>water*</i> pursuant to s14(2) RMA	Permitted	1. The activity must comply with the general <i>conditions</i>[^] listed in Table 15. 2. Any <i>discharge*</i> of removed <i>bed*</i> material or plants onto or into <i>land*</i> must comply with the <i>conditions</i>[^] of RP-LF-LW-R35, except for condition RP-LF-LW-R35 (3)(b) and condition RP-LF-LW-R35 (2) with regard to <i>cleanfill material*</i> and other inert materials such as concrete or brick, or material that would otherwise be <i>cleanfill material*</i> but containing up to 5% by weight putrescible matter.	

Rule	Activity	Classification	Conditions /Standards/Terms	Control/Discretion Non-Notification
	c. <i>discharge*</i> of <i>water*</i> or sediment into <i>water*</i> or onto or into <i>land*</i> pursuant to ss15(1) or 15(2A) RMA d. deposition of substances in or on the <i>bed*</i> of the <i>river*</i> or <i>lake*</i> pursuant to s13(1). 2. As an ancillary activity*, removal of bed* material and plants - The removal or other disturbance of <i>bed*</i> material pursuant to s13(1) or the disturbance, removal, damage, or destruction of plants pursuant to s13(2) RMA for the purpose of maintaining the functional integrity of a <i>structure*</i> located in, on, under or over the <i>bed*</i> of a <i>river*</i> or <i>lake*</i>, including flushing accumulated <i>bed*</i> material, and , as an <i>ancillary activity*</i>, any: a. damming or diversion of <i>water*</i> pursuant to s14(2) RMA b. <i>discharge*</i> of <i>water*</i> or sediment into <i>water*</i> or onto or into <i>land*</i> pursuant to ss15(1) or 15(2A) RMA c. deposition of removed <i>bed*</i> material or plants in or on the <i>bed*</i> pursuant to s13(1) RMA d. <i>discharge*</i> of removed <i>bed*</i> material or plants into <i>water*</i> or onto or into <i>land*</i> pursuant to ss15(1) or 15(2A) RMA e. deposition of substances in or on the <i>bed*</i> of the <i>river*</i> or <i>lake*</i> pursuant to s13(1).			

Rule	Activity	Classification	Conditions /Standards/Terms	Control/Discretion Non-Notification
LF-AWBD-R59 Removal and demolition of structures*	Except as regulated by RP-LF-AWBD-68, the removal or demolition of a <i>structure*</i> located in, on, under or over the <i>bed*</i> of a <i>river*</i> or <i>lake*</i> pursuant to s13(1) RMA, and, as an <i>ancillary activity*</i>, any: 1. excavation, drilling, tunnelling or other disturbance of the <i>river*</i> or <i>lake* bed*</i> pursuant to s13(1) RMA 2. damming or diversion of <i>water*</i> pursuant to s14(2) RMA 3. <i>discharge*</i> of <i>water*</i> or sediment into <i>water*</i> or onto or into <i>land*</i> pursuant to ss15(1) or 15(2A) RMA 4. deposition of substances in or on the <i>bed*</i> of the <i>river*</i> or <i>lake*</i> pursuant to s13(1).	Permitted	1. The activity must comply with the general <i>conditions*</i> listed in Table 15. 2. The Regional Council must be informed in writing of the removal or demolition of any of the following <i>structures*</i>, at least 10 <i>working days*</i> prior to the commencement of the removal or demolition: a. <i>access structures*</i> in or on the <i>bed*</i> of a <i>river*</i> or <i>lake*</i>, including bridges (other than temporary bridges for military training purposes), culverts and fords, where the catchment above the <i>structure*</i> is greater than 50 ha b. <i>structures*</i> occupying more than 5 m² of the <i>bed*</i> of a <i>river*</i> or <i>lake*</i> c. any device for the purpose of monitoring or recording <i>river*</i> levels or quality. 3. The activity must not take place in any <i>rare habitat*</i>, <i>threatened habitat*</i> or <i>at-risk habitat*</i>.	

Rule Guide:

Use, *maintenance** and *upgrade** - The rules above permit the ongoing use, *maintenance** and *upgrade** of *structures** once they are established (subject to conditions in the case of *maintenance** and *upgrade** activities). For *structures** requiring a consent to be established, this means that consents can be granted for a short duration. The rules are intended to avoid the need for resource users to hold long-term consents enabling the use or upkeep of *structures** once they are established.

The *discharge** of *contaminants** into *water** or into or onto *land**, other than *contaminants** specifically identified in the rules, is regulated by the rules in RP-LF-LW.

Rules – dams and damming

The requirements specified in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 also apply, in addition to the following conditions. One Plan users must refer to the Regulations and they should be read in conjunction with the following conditions. Where there is conflict between the provisions of the Regulations and any of the following conditions, the more stringent requirement will apply.

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
LF-AWBD-R60 New and existing small dams	All of the following activities, to the extent that they are relevant, for new and existing dam <i>structures</i>* and associated damming within <i>river</i>s*, within <i>artificial watercourses</i>* and on <i>land</i>*: - the erection, placement or extension of a dam in, on, under or over the <i>bed</i>* of a <i>river</i>* or within an <i>artificial watercourse</i>* or on <i>land</i>* pursuant to ss9(2) or 13(1) RMA - the damming of <i>water</i>* and, as an <i>ancillary activity</i>*, any take, diversion or <i>discharge</i>* of <i>water</i>* that is part of the normal <i>operation</i>* of a dam, pursuant to ss14(2) and 15(1) RMA - as an <i>ancillary activity</i>*, any excavation, drilling, tunnelling or other disturbance of the <i>bed</i>* of a <i>river</i>* pursuant to s13(1) RMA - as an <i>ancillary activity</i>*, any <i>discharge</i>* of <i>water</i>* or sediment into <i>water</i>* or onto or into <i>land</i>* pursuant to ss15(1) or 15(2A) RMA - any deposition of substances in or on the <i>bed</i>* of the <i>river</i>* or <i>lake</i>* pursuant to s13(1). Advice Note:	Permitted	- Any new dam must not be located in a <i>river</i>* prohibited by RP-LF-AWBD-R56 or regulated under RP-LF-AWBD-R54. - For a dam in a <i>river</i>*, the catchment area above the dam must be no greater than 50 ha. - The maximum <i>water</i>* depth must be less than 3 m (measured from the natural ground level at the upstream toe of the dam <i>structure</i>*). - A spillway must be constructed to enable the passage of a 200 year flood without the dam being overtopped. <i>Water</i>* impounded by the dam must not encroach onto adjoining <i>properties</i>*. - Dams in permanently flowing <i>river</i>s* and <i>artificial watercourses</i>* must maintain a residual flow out of the dam at all times including during filling of the dam. - For a dam located in a <i>river</i>*, the activity must comply with the general <i>conditions</i>[^] listed in Table 15. - For a dam located in an <i>artificial watercourse</i>*, the activity must comply with general conditions (1) to (11) in Table 15 as if these <i>conditions</i>[^] applied to an <i>artificial watercourse</i>*. - The activity must not take place in any <i>rare habitat</i>*, <i>threatened habitat</i>* or <i>at-risk habitat</i>*.	

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
	For the avoidance of doubt, any proposal to take <i>water*</i> that is impounded behind a dam <i>structure*</i> for any use other than that provided for in (2) must comply with the <i>rules^</i> set out in RP-LF.			
LF-AWBD-R61 Replacement consents for existing damming of water*	Any lawfully established damming of <i>water*</i> within a <i>river*</i>, within an <i>artificial watercourse*</i> or on <i>land*</i> for which replacement consents are sought and , as an <i>ancillary activity*</i>, any: 1. take, diversion or <i>discharge*</i> of <i>water*</i> that is associated with the existence of the dam <i>structure*</i>, pursuant to s14(2) or s15(1) or 15(2A) RMA, except as permitted by RP-LF-AWBD-R60 2. <i>discharge*</i> of <i>water*</i> or sediment into <i>water*</i> or onto or into <i>land*</i> pursuant to ss15(1) or 15(2A) RMA 3. deposition of substances in or on the <i>bed*</i> of the <i>river*</i> or <i>lake*</i> pursuant to s13(1). Advice Note: For the avoidance of doubt, any proposal to take <i>water*</i> that is impounded behind a dam <i>structure*</i> must comply with the <i>rules^</i> set out in RP-LF.	Controlled		Control is reserved over: 1. fish passage 2. <i>water*</i> levels, flow regimes and minimum flows 3. measures to manage <i>land*</i> stability and erosion 4. measures to assist with maintaining or achieving the RP-SCHED5 <i>water*</i> quality targets for the <i>Water Management Sub-areas*</i> 5. measures to avoid, remedy, or mitigate any adverse <i>effects*</i> on the Values of the <i>waterbody*</i> at and below the point of <i>discharge*</i> dam 6. measures to avoid, remedy or mitigate any adverse <i>effects*</i> on the instream geomorphological components of natural character of the <i>waterbody*</i> 7. management of dam failure 8. <i>effects*</i> on <i>rare habitats*</i>, <i>threatened habitats*</i> and <i>at-risk habitats*</i> and Sites of Significance - Aquatic

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
				9. measures to avoid, remedy, or mitigate adverse <i>effects*</i> on <i>tangata whenua</i> [^] values 10. duration of consent 11. review of consent <i>conditions</i> [^] 12. compliance monitoring 13. the matters in RP-LF-LW-P12. Resource consent applications under this rule will be notified to those parties who are adversely affected in relation to the matters over which control is reserved. This clause does not preclude full public notification of the Regional Council's discretion in accordance with the RMA.

Rule Guide:

All new and existing small dams are authorised if they comply with the conditions of RP-LF-AWBD-R60. The erection or placement of new large dams requires consent under RP-LF-AWBD-76. These large dams also require a building consent from the Regional Council under the Building Act 2004. The damming of *water** by existing large dams requires ongoing authorisation under s14(2) RMA. RP-LF-AWBD-R61 regulates the replacement of existing consents for the damming of *water** when those consents expire. The use, *maintenance** and *upgrade** of all dam *structures**, once they are established, are permitted by RP-LF-AWBD-R57 (use) and RP-LF-AWBD-R58 (*maintenance** and *upgrade**). The authorised use (RP-LF-AWBD-R57) specifically excludes damming regulated under s14(2) RMA as that is covered by RP-LF-AWBD-R60 and RP-LF-AWBD-R61. This means that the Regional Council has decided to accept the presence of existing dam *structures** (and has declined to give itself the discretion as to whether an existing dam *structure** should remain). However, for replacement consents for large dams, the Regional Council does retain control over the *effects** of damming *water** on fish passage, residual flow etc. in relation to the continued operation of the dam under RP-LF-LW-R37 (*discharges**) and RP-LF-TUD-R43 and RP-LF-TUD-R45 (takes), and in relation to the existence of the dam itself as listed in RP-LF-AWBD-61 (damming). These are the *effects** of concern to the Council.

The *discharge** of *contaminants** into *water** or into or onto *land**, other than *contaminants** specifically identified in the rules, is regulated by the rules in RP-LF.

The erection and placement of new dams and the damming of *water** within *rare habitats**, *threatened habitats** or *at-risk habitats** is regulated under RP-ECO-R1 and RP-ECO-R2.

Rules – other *structures**

The requirements specified in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 also apply, in addition to the following conditions. One Plan users must refer to the Regulations and they should be read in conjunction with the following conditions. Where there is conflict between the provisions of the Regulations and any of the following conditions, the more stringent requirement will apply.

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
LF-AWBD-R62 Lines, cables, pipelines and ropeways	The erection, placement, or extension of a line, cable, pipeline or ropeway in, on, under or over the <i>bed</i> * of a <i>river</i> * or <i>lake</i> * pursuant to s13(1) RMA, and , as an <i>ancillary activity</i> *, any: - excavation, drilling, tunnelling or other disturbance of the <i>bed</i>* of a <i>river</i>* or <i>lake</i>* pursuant to s13(1) RMA - damming or diversion of <i>water</i>[^] pursuant to s14(2) RMA <i>discharge</i>* of <i>water</i>* or sediment into <i>water</i>* or onto or into <i>land</i>* pursuant to ss15(1) or 15(2A) RMA - deposition of substances in or on the <i>bed</i>* of the <i>river</i>* or <i>lake</i>* pursuant to s13(1).	Permitted	- The activity and, as an <i>ancillary activity</i>*, any support <i>structures</i>* must either: - be wholly located over or under the <i>bed</i>*, or - occupy no more than 20 m² of the <i>bed</i>*. - The activity must not take place in, on, under or over a reach of a <i>river</i>* with a RP-SCHED2 Value of Natural State except for lines, cables and ropeways that are suspended over the <i>water</i>* and do not require a support <i>structure</i>* in, on, over or under the <i>bed</i>* of the <i>river</i>*. - The activity must comply with the general <i>conditions</i>[^] listed in Table 15. - The activity must not take place in any <i>rare habitat</i>* or <i>threatened habitat</i>*.	
LF-AWBD-R63 Culverts	The erection, placement, or extension of a culvert in, on, under or over the <i>bed</i> * of a <i>river</i> * or <i>lake</i> * pursuant to s13(1) RMA and , as an <i>ancillary activity</i> *, any: - excavation, drilling, tunnelling or other disturbance of the <i>river</i>* or <i>lake</i>* <i>bed</i>* pursuant to s13(1) RMA - damming or diversion of <i>water</i>* pursuant to s14(2) RMA <i>discharge</i>* of <i>water</i>* or sediment into <i>water</i>* or onto or into <i>land</i>* pursuant to ss15(1) or 15(2A) RMA	Permitted	- A new culvert must not be erected or placed in: - a <i>river</i>* or <i>lake</i>* regulated under RP-LF-AWBD-R56 - a reach of a <i>river</i>* with a RP-SCHED2 Value of Flood Control and Drainage, unless the work is undertaken by or on behalf of the Regional Council. - Where multiple culverts are placed side by side, the total cross-sectional area of the multiple culverts must not be less than that of a single culvert which complies with this <i>rule</i>[^]. - The culvert, associated fill and culvert placement must comply with the following dimensions: - a maximum culvert length of 20 m	

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
	4. deposition of substances in or on the <i>bed*</i> of the <i>river*</i> or <i>lake*</i> pursuant to s13(1).		b. for circular culverts a culvert diameter of 0.3 m to 1.2 m (inclusive) c. for non-circular culverts a width and <i>height*</i> of 0.3 m to 1.2 m each (inclusive) d. a maximum fill <i>height*</i> of 2 m above the top of the culvert unless a spillway is constructed to enable the passage of a 200 year flood without the fill being overtopped e. a minimum culvert installation depth below the <i>bed*</i> of 20% of the width of the culvert. 4. The culvert must be positioned so that its alignment and gradient are the same as the <i>river*</i>. 5. The culvert must be constructed to allow: a. the flow from a 5% annual exceedance probability (20 year return period) flood event without overtopping, unless the overtopping flows to a specifically designed spillway b. the flow from a 2 year return period flood event without any flow impediment. 6. The culvert inlet and outlet must be protected against erosion. 7. All practicable steps must be used to minimise the release of sediment during construction. 8. The culvert must be constructed and maintained to avoid any aggradation or erosion of the <i>bed*</i>. 9. The culvert must be kept clear of accumulated debris. 10. The activity must comply with the general <i>conditions*</i>[^] listed in Table 15. 11. The activity must not take place in any <i>rare habitat*</i>, <i>threatened habitat*</i> or <i>at-risk habitat*</i>.	
LF-AWBD-R64	The erection, placement, or extension of any <i>structure*</i> that is not regulated by any other <i>rule*</i> [^]	Permitted	1. A new <i>structure*</i> must not be erected or placed in: a. a <i>river*</i> or <i>lake*</i> regulated under RP-LF-AWBD-R54	

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
Other structures* including bridges, fords and other access structures*	in this chapter in, on, under or over the <i>bed*</i> of a <i>river*</i> or <i>lake*</i> pursuant to s13(1) RMA and any ancillary: 1. excavation, drilling, tunnelling or other disturbance of the <i>river*</i> or <i>lake*</i> <i>bed</i> pursuant to s13(1) RMA 2. damming or diversion of <i>water*</i> pursuant to s14(2) RMA 3. <i>discharge*</i> of <i>water*</i> or sediment into <i>water*</i> or onto or into <i>land*</i> pursuant to ss15(1) or 15(2A) RMA 4. deposition of substances in or on the <i>bed*</i> of the <i>river*</i> or <i>lake*</i> pursuant to s13(1). Advice Note: For the avoidance of doubt, this <i>rule</i>[^] excludes the erection, reconstruction, placement, alteration, or extension of any dam in, on, under or over the <i>bed*</i> of any <i>river*</i> or <i>lake*</i>, within an <i>artificial watercourse*</i> or on <i>land*</i>. Dams are regulated by RP-LF-AWBD-R54, RP-LF-AWBD-R56, RP-LF-AWBD-R57, RP-LF-AWBD-58, RP-LF-AWBD-60 and RP-LF-AWBD-R76.		b. a reach of a <i>river*</i> with a RP-SCHED2 Value of Flood Control and Drainage, unless the work is undertaken by or on behalf of the Regional Council. 2. For bridges and other access <i>structures*</i>, except fords and temporary bridges for military training purposes that are removed within 2 weeks of their erection, located in, on, under or over the <i>bed*</i> of a <i>river*</i> or <i>lake*</i>, the catchment area above the <i>structure*</i> must be no greater than 200 ha. 3. For all <i>structures*</i> located in, on, under or over the <i>bed*</i> of a <i>river*</i> or <i>lake*</i>, the <i>structure*</i> must occupy a <i>bed*</i> area no greater than 20 m² except for: a. <i>whitebait*</i> and maimai <i>structures*</i> which must not exceed 5 m² b. fords which must occupy a <i>bed*</i> area no greater than 40 m² c. temporary bridges for military training purposes that are removed within 2 weeks of their erection. 4. The <i>structure*</i> must be constructed and maintained to avoid any aggradation or scouring of the <i>bed*</i> that may inhibit fish passage. 5. The activity must comply with the general <i>conditions</i>[^] listed in Table 15. 6. The activity must not take place in any <i>rare habitat*</i>, <i>threatened habitat*</i> or <i>at-risk habitat*</i>.	
LF-AWBD-R65 Recording sites*	The erection, placement or extension of a device for the purposes of monitoring or recording <i>river*</i> levels or quality in, on, under or over the <i>bed*</i> of a <i>river*</i> or <i>lake*</i> pursuant to s13(1) RMA and , as an <i>ancillary activity*</i>, any: 1. excavation, drilling, tunnelling or other disturbance of the <i>river*</i> or <i>lake*</i> <i>bed*</i> pursuant to s13(1) RMA	Permitted	1. The device must occupy a <i>bed*</i> area no greater than 20 m². 2. The device must be constructed and <i>maintained*</i> to avoid any aggradation or scouring of the <i>bed*</i> that may inhibit fish passage. 3. The device may divert up to 30 m³ of <i>water*</i> per day for the purpose of measuring <i>water*</i> quality or quantity, provided the <i>water*</i> is returned to the <i>waterbody*</i> within 50 m of the diversion point.	

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
	2. damming or diversion of <i>water</i> * pursuant to s14(2) RMA 3. <i>discharge</i> * of <i>water</i> * or sediment into <i>water</i> * or onto or into <i>land</i> * pursuant to ss15(1) or 15(2A) RMA 4. deposition of substances in or on the <i>bed</i> * of the <i>river</i> * or <i>lake</i> * pursuant to s13(1).		4. The activity must comply with the general <i>conditions</i> [^] listed in Table 15. 5. The Regional Council must be informed in writing at least 10 <i>working days</i> [^] prior to the commencement of the activity taking place. 6. The activity must not take place in any <i>rare habitat</i> *, <i>threatened habitat</i> * or <i>at-risk habitat</i> *.	
LF-AWBD-R66 Bridges and culverts constructed to comply with RP-LF-LW-R14, RP-LF-LW-R15, RP-LF-LW-R17 AND RP-LF-LW-R18.	The erection, placement or extension of a culvert or bridge in, on, under or over the <i>bed</i> * of a <i>river</i> * or <i>lake</i> * pursuant to s13 RMA in order to comply with RP-LF-LW-R14, RP-LW-R15, RP-LF-LW-R17 and RP-LF-LW-R18 and, as an <i>ancillary activity</i> *, any: - excavation, drilling, tunnelling or other disturbance of the <i>river</i>* or <i>lake</i>* <i>bed</i>* pursuant to s13(1) RMA - damming or diversion of <i>water</i>* pursuant to s14(2) RMA <i>discharge</i>* of <i>water</i>* or sediment into <i>water</i>* or onto or into <i>land</i>* pursuant to ss15(1) or 15(2A) RMA - deposition of substances in or on the <i>bed</i>* of the <i>river</i>* or <i>lake</i>* pursuant to s13(1).	Controlled	- The proposed activity is required in order to comply with RP-LF-LW-R14, RP-LF-LW-R15, RP-LF-LW-R17 and RP-LF-LW-18 but is unable to meet one or more of the <i>conditions</i>[^] of RP-LF-AWBD-R58, RP-LF-AWBD-R63 or RP-LF-AWBD-R64. - The activity must not take place in any <i>rare habitat</i>*, <i>threatened habitat</i>* or <i>at-risk habitat</i>*.	Control is reserved over: - measures to avoid, remedy or mitigate the <i>effects</i>* of any non-compliance with the <i>conditions</i>[^] of RP-LF-AWBD-58, RP-LF-AWBD-63 or RP-LF-AWBD-64 - duration of consent - review of consent <i>conditions</i>[^] - compliance monitoring - the matters in RP-LF-LW-P12.

Rule Guide:

The *discharge** of *contaminants** into *water** or into or onto *land**, other than *contaminants** specifically identified in the rules, is regulated by the rules in RP-LF.

Activities within *rare habitats**, *threatened habitats** or *at-risk habitats** are regulated by RP-ECO-R1 and RP-ECO-R2.

Rules – activities within *rivers** with a RP-SCHED2 Value of Flood Control and Drainage

The requirements specified in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 also apply, in addition to the following conditions. One Plan users must refer to the Regulations and they should be read in conjunction with the following conditions. Where there is conflict between the provisions of the Regulations and any of the following conditions, the more stringent requirement will apply.

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
LF-AWBD-R67 Activities undertaken by or on behalf of the Regional Council in <i>rivers*</i> with a RP-SCHED2 Value of Flood Control and Drainage	The following activities within a reach of a <i>river*</i> with a RP-SCHED2 Value of Flood Control and Drainage, where they are undertaken by or on behalf of the Regional Council: - the erection, placement, or extension of any <i>structure*</i> in, on, under or over the <i>bed*</i> of a <i>river*</i> pursuant to 13(1) RMA - the excavation, drilling, tunnelling or other disturbance (including gravel extraction) of the <i>bed*</i> of a <i>river*</i> pursuant to s13(1) RMA - any damming or diversion of <i>water*</i> pursuant to s14(2) RMA - any <i>discharge*</i> or deposition of plants, removed <i>bed*</i> material, rock, shingle, earth, <i>cleanfill material*</i> and other inert materials such as concrete or brick, or material that would otherwise be <i>cleanfill material*</i> but containing up to 5% by weight putrescible matter, <i>water*</i> or sediment into <i>water*</i> or onto or into <i>land*</i> pursuant to ss13(1), 15(1) or 15(2A) RMA - the damage, destruction, disturbance or removal of plants or parts of plants pursuant to s13(2) RMA.	Permitted	- The activity must be undertaken in accordance with the Environmental Code of Practice for River Works (Horizons Regional Council, June 2010). - The activity must not involve: - an activity prohibited under RP-LF-AWBD-R56 - an activity regulated under RP-LF-AWBD-R54, except to the extent that the activities may be carried out in specified Sites of Significance - Aquatic and Sites of Significance - Cultural in accordance with (1).	
LF-AWBD-R68	Except as regulated by RP-LF-AWBD-R58, the following activities pursuant to ss 9(2) and 13(1)	Discretionary		

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
Activities affecting RP-SCHED2 Value of Flood Control and Drainage	RMA in, on or under an <i>artificial watercourse</i>* or a reach of a <i>river</i>* with a RP-SCHED2 Value of Flood Control and Drainage or adjacent <i>land</i>^A as defined in (10) to (13): - the planting of a tree or <i>shrub</i> - the erection, placement or extension of any building or other <i>structure</i>* (including accessways) - the erection, placement or extension of a fence perpendicular to a <i>river</i>* or <i>artificial watercourse</i>* - the erection, placement or extension of a fence greater than 1.2 m high parallel to a <i>river</i>* or <i>artificial watercourse</i>* - the deposition of any rock, shingle, earth, debris or other <i>cleanfill material</i>* and other inert materials such as concrete or brick, or material that would otherwise be <i>cleanfill material</i>* but containing up to 5% by weight putrescible matter - any excavation, drilling, tunnelling or other disturbance likely to undermine the functional integrity of a stopbank or <i>river</i>* control <i>structure</i>* - any <i>land disturbance</i>* that impedes access required for <i>maintenance</i>* of a <i>river</i>* or drainage scheme - the <i>upgrade</i>*, reconstruction, alteration, extension, removal or demolition of any <i>structure</i>* that is maintained by the Regional Council for the purposes of flood control or erosion protection or drainage and, as an <i>ancillary activity</i>*, any:			

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
	a. excavation, drilling, tunnelling or other disturbance of the <i>river*</i> or <i>lake* bed*</i> pursuant to s13(1) RMA b. damming or diversion of <i>water*</i> pursuant to s14(2) RMA c. <i>discharge*</i> of <i>water*</i> or sediment into <i>water*</i> or onto or into <i>land*</i> pursuant to ss15(1) or 15(2A) RMA d. deposition of substances in or on the <i>bed*</i> of the <i>river*</i> or <i>lake*</i> pursuant to s13(1) e. <i>land disturbance*</i> pursuant to s9(2) RMA where the activities listed in (1) to (8) are undertaken in any of the following areas: 9. within the <i>bed*</i> of a <i>river*</i> or within an <i>artificial watercourse*</i> 10. on a stopbank 11. on any strip of <i>land*</i> between an <i>artificial watercourse*</i> or <i>bed*</i> of a <i>river*</i> and 8 m inland of the landward toe of a stopbank 12. for areas without stopbanks, anywhere within 10 m of an <i>artificial watercourse*</i> or the <i>bed*</i> of a <i>river*</i> 13. Only <i>land*</i> use activities described under (6) and (7) are controlled under this <i>rule</i>[^] on <i>land*</i> described under (10) and (11) on and adjacent to the Manawātū River secondary stopbank located between Ruahine Street at Fitzroy Bend and Ruamahanga Crescent. The other listed <i>land*</i> use activities are not controlled in that area.			

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
	This <i>rule</i> [^] does not apply to activities undertaken by or on behalf of the Regional Council.			

Rule Guide:

The *discharge*^{*} of *contaminants*^{*} into *water*^{*} or into or onto *land*^{*}, other than *contaminants*^{*} specifically identified in the rules, is regulated by the rules in RP-LF.

Rules – gravel extraction, *bed** disturbances and plants

The requirements specified in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 also apply, in addition to the following conditions. One Plan users must refer to the Regulations and they should be read in conjunction with the following conditions. Where there is conflict between the provisions of the Regulations and any of the following conditions, the more stringent requirement will apply.

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
LF-AWBD-R69 Small-scale gravel extraction	The excavation or other disturbance of the <i>bed</i>* of a <i>river</i>* or <i>lake</i>* for the purpose of extracting gravel and other <i>bed</i>* material, pursuant to s13(1) RMA and , as an <i>ancillary activity</i>*, any: 1. damming or diversion of <i>water</i>* pursuant to s14(2) RMA 2. <i>discharge</i>* of <i>water</i>* or sediment into <i>water</i>* or onto or into <i>land</i>* pursuant to ss15(1) or 15(2A) RMA 3. deposition of substances in or on the <i>bed</i>* of the <i>river</i>* or <i>lake</i>* pursuant to s13(1).	Permitted	1. The activity must not take place in a <i>river</i>* or <i>lake</i>* regulated under RP-LF-AWBD-R54. 2. The amount of gravel and <i>bed</i>* material extracted must not exceed 50 m³ in any 12 month period. 3. The gravel or other material must only be extracted from an area of <i>river</i>* <i>bed</i>* that is not covered by flowing <i>water</i>* at the time of extraction. 4. The activity must comply with the general <i>conditions</i>*^ listed in Table 15. 5. The activity must not take place in any <i>rare habitat</i>*, <i>threatened habitat</i>* or <i>at-risk habitat</i>*.	
LF-AWBD-R70 Other minor <i>bed</i>* disturbances	Except as regulated by other <i>rules</i>*^ in this chapter, the excavation, drilling, tunnelling or other disturbance of the <i>bed</i>* of a <i>river</i>* pursuant to s13(1) RMA and , as an <i>ancillary activity</i>*, any: 1. damming or diversion of <i>water</i>* pursuant to s14(2) RMA 2. <i>discharge</i>* of <i>water</i>* or sediment into <i>water</i>* or onto or into <i>land</i>* pursuant to ss15(1) or 15(2A) RMA 3. deposition of substances in or on the <i>bed</i>* of the <i>river</i>* or <i>lake</i>* pursuant to s13(1). Advice Note: For the avoidance of doubt, this <i>rule</i>*^ does not include gravel extraction.	Permitted	1. The activity must not take place in a <i>river</i>* regulated under RP-LF-AWBD-R54. 2. The activity must comply with the general <i>conditions</i>*^ listed in Table 15. 3. The activity must not take place in any <i>rare habitat</i>*, <i>threatened habitat</i>* or <i>at-risk habitat</i>*.	

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
LF-AWBD-R71 Plants	Except as regulated by other <i>rules</i>[^] in this chapter, the introduction, planting, removal or destruction of a plant in or on the <i>bed</i>[*] of a <i>river</i>[*] or <i>lake</i>[*] pursuant to s13(1) or s13(2) RMA, and, as an <i>ancillary activity</i>[*], an: 1. excavation, drilling, tunnelling or other disturbance of the <i>bed</i>[*] of a <i>river</i>[*] or <i>lake</i>[*] pursuant to s13(1) RMA 2. damming or diversion of <i>water</i>[*] pursuant to s14(2) RMA 3. <i>discharge</i>[*] of <i>water</i>[*] or sediment into <i>water</i>[*] or onto or into <i>land</i>[*] pursuant to ss15(1) or 15(2A) RMA 4. deposition of substances in or on the <i>bed</i>[*] of the <i>river</i>[*] or <i>lake</i>[*] pursuant to s13(1).	Permitted	1. A pest plant, as listed in the Regional Pest Plant Management Strategy, must not be introduced or planted. 2. The activity must not involve the planting of a tree or <i>shrub</i> in a reach of a <i>river</i>[*] with a RP-SCHED2 Value of Flood Control and Drainage, as regulated by RP-LF-AWBD-R52 3. The activity must not involve the removal or destruction of plants in Lake Papaitonga, Pukepuke Lagoon or Lake Horowhenua except for a radius of 500 m from the Lake Horowhenua outlet weir (which is permitted by this <i>rule</i>[^]). 4. The activity must comply with the general <i>conditions</i>[^] listed in Table 15. 5. The activity must not take place in any <i>rare habitat</i>[*], <i>threatened habitat</i>[*] or <i>at-risk habitat</i>[*].	
LF-AWBD-R72 Other gravel extraction	Except as regulated by RP-LF-AWBD-R54 and RP-LF-AWBD-R69, the excavation or other disturbance of the <i>bed</i>[*] of a <i>river</i>[*] or <i>lake</i>[*] for the purpose of extracting gravel and other <i>bed</i>[*] material, pursuant to s13(1) RMA and including any ancillary: 1. damming or diversion of <i>water</i>[*] pursuant to s14(2) RMA 2. <i>discharge</i>[*] of <i>water</i>[*] or sediment into <i>water</i>[*] or onto or into <i>land</i>[*] pursuant to ss15(1) or 15(2A) RMA 3. deposition of substances in or on the <i>bed</i>[*] of the <i>river</i>[*] or <i>lake</i>[*] pursuant to s13(1) 4. <i>discharges</i>[*] to air pursuant to s15(2A) RMA.	Discretionary	1. The activity must not take place in any <i>rare habitat</i>[*], <i>threatened habitat</i>[*] or <i>at-risk habitat</i>[*].	

Rule Guide:

Gravel extraction that cannot meet the conditions set out in RP-LF-AWBD-R72 is a discretionary activity RP-LF-AWBD-R76.

The *discharge*^{*} of *contaminants*^{*} into *water*^{*} or into or onto *land*^{*}, other than *contaminants*^{*} specifically identified in the rules, is regulated by the rules in RP-LF.

Activities undertaken in *rare habitats**, *threatened habitats** or *at-risk habitats** are regulated under RP-ECO-R1 and RP-ECO-R2.

Rules – activities in artificial *watercourses** and non-natural *lakes**

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
LF-AWBD-R73 Minor activities involving artificial watercourses*	Any: 1. damming or diversion of <i>water</i>* pursuant to s14(2) RMA 2. <i>discharge</i>* of <i>water</i>*, sediment, <i>artificial watercourse</i>* material or plants into <i>water</i>* or onto or into <i>land</i>* pursuant to ss15(1) or 15(2A) RMA associated with any of the following activities within an <i>artificial watercourse</i>*: 3. the <i>maintenance</i>*, <i>upgrade</i>*, or extension of a <i>structure</i>* or part of a <i>structure</i>* in, on, under or over <i>land</i>* within an <i>artificial watercourse</i>* 4. the removal of <i>artificial watercourse</i>* material or plants for the purpose of maintaining the functional integrity of a <i>structure</i>*, including flushing accumulated material 5. the <i>discharge</i>* of removed <i>artificial watercourse</i>* material or plants onto or into <i>land</i>* 6. the excavation, drilling, tunneling, or other disturbance of the <i>land</i>* within an <i>artificial watercourse</i>* 7. the introduction, planting, removal or destruction of a plant in or on <i>land</i>* within an <i>artificial watercourse</i>* 8. the deposition of any substance in or on <i>land</i>* within an <i>artificial watercourse</i>*. This <i>rule</i>[^] does not include the damming of an <i>artificial watercourse</i>* pursuant to s14(2) RMA.	Permitted	1. The activity must comply with the general conditions (1) to (11) and (21), (22) and (17) in Table 15 as if these <i>conditions</i>[^] applied to an <i>artificial watercourse</i>*. 2. The activity must not involve an activity restricted by RP-LF-AWBD-R68. 3. Any <i>discharge</i>* of removed material or plants onto or into <i>land</i>* (being <i>land</i>* that is not within an <i>artificial watercourse</i>*) must comply with the <i>conditions</i>[^] of RP-LF-LW-R35, except for conditions RP-LF-LW-R35(1) and RP-LF-LW-R35(3)(b). 4. The activity must not take place in any <i>rare habitat</i>*, <i>threatened habitat</i>* or <i>at-risk habitat</i>*. 5. All reasonable steps shall be taken to return any stranded fish back into the <i>artificial watercourse</i>*.	

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
	That activity is addressed by RP-LF-AWBD-R60 and RP-LF-AWBD-R61.			
LF-AWBD-R74 Bed* disturbance of non-natural lakes* to maintain their function	Except as permitted by other <i>rules</i>[^] in this chapter, the disturbance or removal of <i>bed</i>* material or plants for the purpose of maintaining the functional integrity of a non-natural <i>lake</i>*, pursuant to ss13(1) or 13(2) RMA and , as an <i>ancillary activity</i>*, any: 1. excavation, drilling, tunnelling or other disturbance of the <i>bed</i>* pursuant to s13(1) RMA 2. damming or diversion of <i>water</i>* pursuant to s14(2) RMA 3. <i>discharge</i>* of <i>water</i>* or sediment into <i>water</i>* or onto or into <i>land</i>* pursuant to ss15(1) or 15(2A) RMA 4. deposition of removed <i>bed</i>* material or plants in or on the <i>bed</i>* pursuant to s13(1) RMA 5. <i>discharge</i>* of removed <i>bed</i>* material or plants onto or into <i>land</i>* or into <i>water</i>* pursuant to ss15(1) or 15(2A) RMA.	Controlled	1. The activity must comply with the general conditions (1) to (11) and (21), (22) and (17) in Table 15. 2. Any <i>discharge</i>* of removed <i>bed</i>* material or plants onto or into <i>land</i>* must comply with the <i>conditions</i>[^] of RP-LF-LW-R35 except condition RP-LF-LW-R35(3)(b). 3. The activity must not take place in any <i>rare habitat</i>*, <i>threatened habitat</i>* or <i>at-risk habitat</i>*.	Control is reserved over: 1. <i>effects</i>* on <i>water</i>* quality 2. <i>effects</i>* on inflow rates of sediment 3. <i>effects</i>* on aquatic habitats 4. the nature, scale, timing and duration of the activity undertaken 5. duration of consent 6. review of consent <i>conditions</i>[^] 7. compliance monitoring 8. the matters in RP-LF-LW-P12.

Rule Guide:

The *discharge** of *contaminants** into *water** or into or onto *land**, other than *contaminants** specifically identified in the rules, is regulated by the rules in RP-LF.

Activities within *rare habitats**, *threatened habitats** or *at-risk habitats** are regulated by RP-ECO-R1 and RP-ECO-R2.

Rules – activities that do not comply with permitted activity, controlled activity or restricted discretionary activity rules and all other s13(1) RMA activities not covered by this chapter

The requirements specified in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 also apply, in addition to the following conditions. One Plan users must refer to the Regulations and they should be read in conjunction with the following conditions. Where there is conflict between the provisions of the Regulations and any of the following conditions, the more stringent requirement will apply.

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
LF-AWBD-R75 Activities that do not comply with permitted activity[^] general conditions[^]	Any activity that does not comply with RP-LF-AWBD-R58 condition (1), RP-LF-AWBD-R59 condition (1), RP-LF-AWBD-R60 condition (7), RP-LF-AWBD-62 condition (3), RP-LF-AWBD-63 condition (10), RP-LF-AWBD-R64 condition (5), RP-LF-AWBD-R65 condition (4), RP-LF-AWBD-R69 condition (4), RP-LF-AWBD-R70 condition (2), RP-LF-AWBD-R71 condition (4), including , as an <i>ancillary activity</i> [*] , any: 1. excavation, drilling tunnelling or other disturbance of the <i>bed</i>[*] pursuant to s13(1) RMA 2. damming or diversion of <i>water</i>[*] pursuant to s14(2) RMA 3. <i>discharge</i>[*] of <i>water</i>[*] or sediment into <i>water</i>[*] or onto or into <i>land</i>[*] pursuant to ss15(1) or 15(2A) RMA 4. deposition of substances in or on the <i>bed</i>[*] of the <i>river</i>[*] or <i>lake</i>[*] pursuant to s13(1).	Restricted Discretionary	The activity must comply with all other conditions, standards and terms of the applicable <i>permitted activity</i> [^] <i>rule</i> [^] .	Discretion is restricted to: 1. measures to avoid, remedy or mitigate the <i>effects</i>[*] of the activity in relation to any non-compliance with the matters listed in Table 15 2. duration of consent 3. review of consent <i>conditions</i>[^] 4. compliance monitoring 5. the matters in RP-LF-LW-P12.
LF-AWBD-R76 Activities that do not comply with permitted activity[^], controlled activity[^]	Any activity that does not comply with one or more <i>conditions</i> [^] , standards or terms of a <i>permitted activity</i> [^] , <i>controlled activity</i> [^] or <i>restricted discretionary activity</i> [^] <i>rule</i> [^] in this chapter, but which is not expressly classified as	Discretionary		

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
or restricted discretionary activity[^] rules[^] and all other s13(1) RMA activities not covered by this chapter	a discretionary activity[^], non-complying activity[^] or prohibited activity[^] or is a s13(1) RMA activity not covered by this chapter, including , as an ancillary activity[*], any: 1. excavation, drilling, tunnelling or other disturbance of the <i>bed</i>[*] pursuant to s13(1) RMA 2. damming or diversion of <i>water</i>[*] pursuant to s14(2) RMA 3. <i>discharge</i>[*] of <i>water</i>[*] or sediment into <i>water</i>[*] or onto or into <i>land</i>[*] pursuant to ss15(1) or 15(2A) RMA 4. deposition of substances in or on the <i>bed</i>[*] of the <i>river</i>[*] or <i>lake</i>[*] pursuant to s13(1).			

Rule Guide:

The *discharge*^{*} of *contaminants*^{*} into *water*^{*} or into or onto *land*^{*}, other than *contaminants*^{*} specifically identified in the rules, is regulated by the rules in RP-LF

One Plan changes – applying the Definitions Standard

This guide outlines the amendments to One Plan provisions made by Plan Amendment 3 to give effect to the Definitions Standard (Standard) of the National Planning Standards.

Rows highlighted **orange** require a Schedule 1 plan change to give effect to the Standard. PA3 does not use these Standard definitions.

Rows highlighted **green** indicate where the One Plan uses a similar, but sufficiently different, term to the Standard, and no action has been taken.

Direct comparison between terms:

Standard Term	Standard definition	One Plan definition	Use in One Plan	Recommended approach	Chapter/s amendments apply to
Abrasive blasting	means the cleaning, smoothing, roughening, cutting or removal of part of the surface of any article by the use, as an abrasive, of a jet of sand, metal, shot or grit or other material propelled by a blast of compressed air or steam or water or by a wheel.	means the cleaning, smoothing, roughening, cutting or removal of part of the surface of any article by the use of a jet of sand, metal, shot, grit or any other abrasive material propelled by a blast of compressed air or mechanically via a rotary wheel, impeller or other means.	Rule 15-11	Replace One Plan definition with Standard definition	No consequential amendments required
Bore	(a) means any hole drilled or constructed in the ground that is used to – (i) investigate or monitor conditions below the ground surface; or (ii) abstract gaseous or liquid substances from the ground; or (iii) discharge gaseous or liquid substances into the ground; but it excludes test pits, trenches, soak holes and soakage pits.	means any hole, regardless of the method of formation, that: (a) is created for the purpose of accessing groundwater, oil or gas; or (b) is created for the purpose of exploring water, oil or gas resources <u>excluding piezometers installed for monitoring purposes.</u>	Issue 2-1 Table 2.1 5.1.1 5.1.3 Issue 5-2 Policy 5-20 5.7 Policy 13-3 Rule 13-8, 13-9 Rule 14-6, 14-7, 14-8, 14-9, 14-10, 14-11, 14-13, 14-16, 14-28 Rule 15-15 Policy 16-1, 16-3, 16-4, 16-5, 16-8 Rule 16-2, 16-4, 16-9, 16-14, 16-15 Rule 18-25	Requires Schedule 1 plan change	
Cleanfill area	means an area used exclusively for the disposal of cleanfill material	Cleanfill means a landfill that accepts only cleanfill material.	Policy 3-10 Method 3-1, 3-2	Replace 'Cleanfill' definition (and usage) in One Plan with 'Cleanfill area' definition in Standard	I have applied track changed consequential amendments to: • Ch 3
Cleanfill material	means virgin excavated natural material including clay, gravel, sand, soil and rock that are free of: a. combustible, putrescible, degradable or leachable components; b. hazardous substances and materials; c. products and materials derived from hazardous waste treatment, stabilisation or disposal practices; d. medical and veterinary wastes, asbestos, and radioactive substances; e. contaminated soil and other contaminated materials; and f. liquid wastes.	Cleanfill material means materials such as clay, soil and rock, and other inert materials such as concrete or brick that are free of: (a) combustible, putrescible (except that <u>cleanfill material may contain up to 5% by weight putrescible matter.</u>), degradable or leachable components; (b) hazardous substances (c) products or materials derived from hazardous waste treatment, hazardous waste stabilisation or hazardous waste disposal practices materials that may present a risk to human health (d) liquid waste.	Rule 14-21, 14-26, 14-27 Rule 17-5, 17-14, 17-15	Replace One Plan definition with Standard definition And Insert the following after 'cleanfill material' where appropriate: and other inert materials such as concrete or brick, or material that would otherwise be cleanfill material but contains up to 5% by weight putrescible matter.	I have applied track changed consequential amendments to: • Ch 14 • Ch 17
Cultivation	Means the alteration or disturbance of land (or any matter constituting the land including soil, clay, sand and rock), for the purpose of sowing, growing or harvesting of pasture or crops.	Cultivation means preparing land for growing pasture or a crop and the planting, tending and harvesting of that pasture or crop, but excludes: (a) direct drilling of seed (b) no-tillage practices (c) recontouring land (d) forestry (e) the clearance of woody vegetation and new tracking in a Hill Country Erosion Management Area.	4.1.1, 4.1.3 Issue 4-1 Objective 4-2 Policy 4-2 4.7 Objective 13-1 Policy 13-1, 13-2, 13-3 Rule 13-4, 13-6, 13-7, 13-8, 13-9 Hill Country Erosion Management Area Vegetation Clearance Note: Overarching definition is essentially the same, but standard definition does not include the exclusions in the One Plan definition.	Requires Schedule 1 plan change	

Dry abrasive blasting	Means abrasive blasting using materials to which no water has been added	Not defined	Ch 11 Ch 15	Insert Standard definition in One Plan (currently no definition)	No consequential amendments required – just formatting in Ch 11, Ch 15.
Fertiliser	means a substance or biological compound or mix of substance or biological compounds in solid or liquid form, that is described as, or held out to be suitable for, sustaining or increasing the growth, productivity or quality of soils, plants or, indirectly, animals through the application to plants or soil of any of the following: a. nitrogen, phosphorous, potassium, sulphur, magnesium, calcium, chlorine, and sodium as major nutrients; or b. manganese, iron, zinc, copper, boron, cobalt, molybdenum, iodine, and selenium as minor nutrients; or c. fertiliser additives to facilitate the uptake and use of nutrients; or d. non-nutrient attributes of the materials used in fertiliser. It does not include livestock effluent, human effluent, substances containing pathogens, or substances that are plant growth regulators that modify the physiological functions of plants.	means any substance or mix of substances that is described as or held to be suitable for sustaining or increasing the growth, productivity or quality of plants (or animals indirectly) through the application to plants and soils of: (a) the following major nutrients: nitrogen, phosphorous, potassium, sulphur, magnesium, calcium, chloride and sodium (b) the following minor nutrients: manganese, iron, zinc, copper, boron, cobalt, molybdenum, iodine and selenium (c) non-nutrient attributes of the materials used in fertiliser (d) fertiliser additives (e) gypsum and lime but does not include biosolids, animal effluent, compost or poultry farm litter or pig farm litter.	4.1.2 Method 4-3 5.1.4 Method 5-6? Rule 14-1, 14-2, 14-3, 14-5 Rule 15-14 Agrichemical definition Note: Definitions are very similar. One Plan definition includes gypsum and lime and excludes compost.	Requires Schedule 1 plan change	
Land disturbance	Means alternation or disturbance of the land , (or any matter constituting the land including, soil, clay, sand and rock), that does not permanently alter the profile, contour or height of the land	Land disturbance means the disturbance of the <i>land</i> [^] surface by any means including by blading, blasting, contouring, cutting of batters, filling, excavating, ripping, root raking, recontouring, or moving or removing soil or earth. <i>Vegetation clearance</i> [*] and <i>land disturbance</i> [*] excludes: (a) <i>cultivation</i> [*] (b) <i>forestry</i> [*] (c) clearance or disturbance by animals including grazing (d) activities undertaken for the sole purpose of establishing a fence line and not located within a <i>rare habitat</i> [*] , <i>threatened habitat</i> [*] or <i>at-risk habitat</i> [*] (e) the <i>maintenance</i> [*] or <i>upgrade</i> [*] of existing <i>tracks</i> [*] , <i>structures</i> [^] (including fences) or <i>infrastructure</i> [^] (f) maintaining shelterbelts (including cutting of shelterbelt roots) (g) activities associated with fruit tree or fruit vine plantations (h) activities undertaken for the purpose of protecting, maintaining or enhancing areas of rare habitat [*] , threatened habitat [*] or at-risk habitat [*] (i) clearance of vegetation that is fallen or dead and not located within a rare habitat [*] , threatened habitat [*] or at-risk habitat [*] that is forest [*] or scrub [*] in Schedule F (j) activities undertaken within the boundaries of any area of land [^] held or managed under the Conservation Act 1987 or any other Act specified in Schedule 1 to that Act (other than land [^] held for administrative purposes) that are consistent with a conservation management strategy, conservation management plan, or management plan established under the Conservation Act 1987 or any other Act specified in Schedule 1 to that Act (k) activities undertaken within the boundaries of the New Zealand Defence Force Waiouru Military Training Area, provided that those activities are undertaken in accordance with a management plan that has the same or similar outcome as an Erosion and Sediment Control Plan [*]	Objective 4-2 Policy 4-2 4.7 9.1 Objective 13-1 Policy 13-1, 13-2, 13-3 Rule 13-1, 13-2, 13-4, 13-6, 13-7, 13-8, 13-9 Rule 17-15 Erosion and Sediment Control Plan Hill Country Erosion Management Area Vegetation clearance	Requires Schedule 1 plan change	

		(l) clearance of thistles, ring ferns, carpet ferns, rushes, ink weed, briar rose, barberry, introduced pampas grass (other than toetoe), mingimingi, wilding pinus species, Japanese poplar, Japanese walnut and pest plants referred to in the Regional Council's Regional Pest Plant Management Strategy.			
Landfill	means an area used for, or previously used for, the disposal of solid waste. It excludes cleanfill areas	means a site where waste is disposed of by burying it, placing it upon land or other waste, but <u>excludes a farm dump</u> .	Policy 3-1, 3-11 3.7.3, 3.7.5 Policy 12-5 Rules 14-23, 14-26, 14-27	Replace One Plan definition with Standard definition And Insert the following after 'Landfill, where appropriate: (excluding farm dumps) .	I have applied track changed consequential amendments to: • Ch 3 • Ch 14
Wet abrasive blasting	means abrasive blasting using material to which water has been added	means abrasive blasting when water or a mixture of abrasive and water is added to the airflow carrying the abrasive material prior to the blasting nozzle exit, or when the blasting medium is predominantly a pressurised slurry.	Rule 15-12	Replace One Plan definition with Standard definition	No consequential amendments required

Defined terms that are used, similar or linked terms in the One Plan (may or may not be defined in One Plan)

Standard Term	Standard definition	One Plan context	Use in One Plan	Recommended approach	Chapter/s amendments apply to
Ancillary activity	means an activity that supports and is subsidiary to a primary activity	'Ancillary' used throughout Part II (regional plan) in policies and rules to describe activities associated with, but subsidiary to, the principal activity the provision relates to. E.g., Rule 13-1 controls small-scale land disturbance and <u>ancillary diversion of water and discharge of sediment</u> .	"Ancillary" used 112 times in RP ("Ancillary Activity" is not used). Used in rules in: Ch 13, 14, 16, 17, 18.	Change 'ancillary' to 'as an ancillary activity'	Consequential amendments made to: - Ch 11 - Ch 13 - Ch 14 - Ch 15 - Ch 16 - Ch 17 - Ch 18 - Definitions: 'Hill Country Erosion Management Area'
Aquifer	means a permeable geological formation, group of formations, or part of a formation, beneath the ground, capable of receiving, storing, transmitting and yielding water	Not defined. Used in relation to seawater intrusion of coastal aquifers, and groundwater and bores: - coastal aquifers (seawater intrusion): Issue 2-4, Table 2.1(o), Section 5.1.3, Objective 5-3 - groundwater/bores: section 5.1.3, Policy 16-5	Issue 2-4 Table 2.1 5.1.3 Objective 5-3 Policy 16-5	Requires Schedule 1 plan change	
Building	means a temporary or permanent moveable or immovable physical construction that is: a) partially or fully roofed, and b) is fixed or located on or in land, but excludes any motorised vehicle or other mode of transport that could be moved under its own power	'Building' used throughout the plan without being defined: Chapter 3: Policy 3-1(e), (f), AER Section 4.1.2	Building or Buildings used 32 times in RPS and RP.	Requires Schedule 1 plan change	
Drain	means any artificial watercourse, designed, constructed, or used for the drainage of surface or subsurface water , but excludes artificial watercourses used for the conveyance of water for electricity generation, irrigation, or water supply purposes	Artificial watercourse means a continually or intermittently flowing body of fresh water that does not meet the definition of river in s2 of the RMA. For the purposes of this plan, it includes an irrigation canal, water supply race, canal for the supply of water for hydroelectricity power generation and farm drainage canal; but excludes a non-natural lake. Drain used in: - Rules 13-1 condition (b), 13-4 condition (b) – interception drains; Policy 14-7 – stormwater drains; Rule 16-12 condition(a)(iii) and (k) - Glossary: 'new tracking' definition (water table drains) - Schedule B – Mana_1a subzone description "Manawatu River Tributary (drain)"; Mana_5a "Tamaki River Tributary (drain)"; Mana_9b, 9c; Mana_6; Mana_10c, 10d; Mana_11d; Mana_13a, 13c, 13d, 13f; Rang_4a, 4d; Whau_4; Tura_1; Ohau_1; West_9b; Hokio_1a, 1b, etc! - Also used widely as a proper name. Otherwise, drainage is widely used, and drained .	Rule 13-1: no issue Rule 13-4: no issue Policy 14-7: no issue Glossary 'new tracking' definition: no issue Rule 16-12: issue exists??	Requires Schedule 1 plan change	
Drinking water	means water intended to be used for human consumption; and includes water intended to be used for food preparation, utensil washing, and oral or other personal hygiene.	Used throughout the One Plan without being defined separately from water: - Chapter 5: section 5.3.1 (water quantity), Issue 5-1 Water Quality ('New Zealand drinking water standard'), Policy 5-1 – Table 5.2 (Water Supply Value definition), Schedule B - Chapter 14: Policy 14-7(a)(i), Rule 14-13 condition (e)(i) (both re discharges of domestic wastewater) - Drinking water for animals: Objective 5-3(a)(iii), Policy 5-1 – Table 5.2 (Stock Water Value definition), Policies 5-12 (multiple), 5-18, 14-7(a)(i), Rule 16-6, Schedule B PUBLIC WATER SUPPLY: Chapter 1, Issue 2 – Increasing water demand Policy 2-3(b) The mauri of water	The Standard definition will apply when used in the correct context (for humans). It won't apply when the One Plan makes reference to 'drinking water for livestock' or 'animal drinking water'. However, the RMA definition of water will still apply.	1. Amend a definition: Change the definition of 'Public Water Supply' in the One Plan, so that its drinking water definition is the same as the Standard. (Note: the definition align so no consequential amendments will result from this) And also 2. Add a definition: Insert the Standard definition of 'Drinking water'. Note: When referring to different contexts (e.g. drinking water for animals), don't use the definition.	No consequential amendments required. I have applied formatting changes in: Ch 5 Ch 14 In the glossary, I have made formatted consequential amendments to: 'public water supply'

Standard Term	Standard definition	One Plan context	Use in One Plan	Recommended approach	Chapter/s amendments apply to
		Policy 3-1(a)(ix) Regionally significant infrastructure Policy 5-12 (multiple); 5-18(iv) (multiple); Policy 15-1(e)(v), 15-2(d)(vii), Rule 15-2 condition (iv) Section 19.1 Glossary Very similar to the definition of drinking water included within the One Plan glossary term public water supply (means a reticulated publicly or privately owned drinking water[^] supply connecting at least two buildings and serving at least 1,500 person days per year (eg., 25 people for at least 60 days per year). Drinking water[^] is water[^] intended to be used for human consumption, food preparation, utensil washing, oral hygiene or personal hygiene.)			
Dust	means all non-combusted solid particulate matter that is suspended in the air, or has settled after being airborne. Dust may be derived from materials including rock, sand, cement, fertiliser, coal, soil, paint, animal products and wood.	Used throughout the One Plan without being defined, mainly in the context of discharges to air (including ancillary discharges): Policy 3-11 Landfill Management and section 15.3 (reference to document title) Chapter 7: Section 7.1, Policy 7-2 (Table 7.3), Methods 7-4 and 7-5 Chapter 14: Rule 14-6 condition (e), 14-7 condition (f), 14-8 condition (e) & matter of discretion (c), 14-9 condition (e), 14-10 condition (g), 14-22 condition (d) Chapter 15: Rule 15-11 condition (b), 15-14 condition (f), 15-15 condition (d), 15-16 condition (c)	Used throughout the One Plan without being defined, mainly in the context of discharges to air (including ancillary discharges): Chapter 7: Section 7.1, Policy 7-2 (Table 7.3), Methods 7-4 and 7-5 Chapter 14: Rule 14-6 condition (e), 14-7 condition (f), 14-8 condition (e) & matter of discretion (c), 14-9 condition (e), 14-10 condition (g), 14-22 condition (d) Chapter 15: Rule 15-6 condition (e) 15-7 condition (b), Rule 15-11 condition (b), 15-14 condition (f), 15-15 condition (d), 15-16 condition (c)	Insert the Standard definition (currently no definition) Insert the following after 'Dust' where appropriate as outlined below: and ash. Include in: Chapter 7: Section 7.1, Policy 7-2 (Table 7.3), Methods 7-4 and 7-5 Chapter 15: Rule 15-6 condition (e) 15-7 condition (b),	Consequential amendments made in 7.1, P 7-3, M 7-4 & 7-5, R 15-6 & 15-7. Formatting changes will need to occur in: Ch 7 Ch 14 Ch 15
Earthworks	means the alteration or disturbance of land , including by moving, removing, placing, blading, cutting, contouring, filling or excavation of earth (or any matter constituting land including soil, clay, sand and rock); but excludes gardening, cultivation, and disturbance of land for the installation of fence posts	Used throughout the One Plan without being defined, mainly in the context of land disturbance and/or forestry activities: - Chapter 4: sections 4.1.2 (accelerated erosion) and 4.1.3 (land and soil management), Issue 4-1 - Chapter 13: Policy 13-2, Rules 13-2, 13-3 - Section 6.1.4 (historic heritage); Glossary (erosion and sediment control plan, in context of Rule 13-3; forestry)	NEEDS CAREFUL CONSIDERATION, including relationship with other terms (land disturbance, cultivation, Earthworks is related to land disturbance (also a defined term in the Standard). Both begin with "alteration or disturbance of land". 4.1.2 – context is fine. 4.1.3 – context not ideal? Issue 4-1 - context not ideal? 6.1.4 – context is fine. 13-2 - context not ideal? Rule 13-2 - context not ideal? Rule 13-3 context is fine. Glossary (erosion and sediment control plan – context is fine.	Requires Schedule 1 plan change	
Educational facility	means land or buildings used for teaching or training by child care services, schools, and tertiary education services, including any ancillary activities.	'Education facility' used in One Plan – undefined. Chapter 5: Water allocation policies: Policies 5-12(d)(iv), 5-18(d)(ii) ('schools and other education facilities') Discharges – separation distances: Rules 14-8 condition (c), 14-9 condition (c), 14-10(e)(i), 14-11(c)(i) & (ii), 14-16(d)(i) Policies 15-1(e)(iii), 15-2(d)(iii), Rule 15-5 condition (d), Refers to 'small schools' in definition of domestic wastewater plus additional references to documents and a specific school. – n/a	'Education facility' used in One Plan – undefined.	Insert the Standard definition (currently no definition) And In policy 5-12(d)(iv) and 5-18(d)(ii), change "schools or other education facilities" to "educational facilities" And Change "education facility" to "educational facility" in 14-8(c), 14-9(c), 14-10(e)(i), 14-11(c)(i) & (ii), 14-16(d)(i), and 15-1(e)(iii), 15-2(d)(iii), Rule 15-15	I have applied track changed consequential amendments to: - Ch 5 - Ch 14 - Ch 15
Functional need	means the need for a proposal or activity to traverse, locate or operate in a particular environment because the activity can only occur in that environment	'Functional' used in the context of: 'functional factors' (Chapter 3 intro (energy) and Issue 3-2: "...functional, operational and technical	The Standard definition is consistent with the way "functional" is used in:	Requires Schedule 1 plan change	

Standard Term	Standard definition	One Plan context	Use in One Plan	Recommended approach	Chapter/s amendments apply to
		factors...”; Policy 3-3(c)(ii) ‘ functional constraints ’ (“...functional, operation and technical constraints...”) • ‘functional necessity’ (Policy 6-9, around natural character; Policies 8-4, 18-3, 18-5, 18-8 and 18-11, Rule 18-19, CMA; Policy 9-2, development in floodways and areas prone to flooding)	- Ch 3.1, 3.2 and 3.4 in the phrase: “...functional, operational and technical factors...” - Policy 6-9, 8-4, 9-2, 9.7, 18-3, 18-5, 18-8, rule 18-19, 18-11: “functional necessity”		
Operational need	means the need for a proposal or activity to traverse, locate, or operate in a particular environment because of technical, logistical or operational characteristics or constraints		The Standard definition is consistent with the way “operational” is used in Ch 3.1, 3.2 and 3.4 in the phrase: “...functional, operational and technical factors...” And Policy 3-3(c)	Requires Schedule 1 plan change	
Greywater	means liquid waste from domestic sources including sinks, basins, baths, showers and similar fixtures, but does not include sewage , or industrial and trade waste	“Greywater” appears 3 times in One Plan, and the context seems in keeping with the Standard definition. • Rule 14-13 • Rule 14-15 • Mentioned in Domestic Wastewater definition		Insert the Standard definition (currently no definition)	No consequential amendments required. Formatting changes will need to occur in: - Ch 14 - ‘Domestic Wastewater’ definition
Industrial and trade waste	means liquid waste, with or without matter in suspension, from the receipt, manufacture or processing of materials as part of a commercial, industrial or trade process, but excludes sewage and greywater.	‘Industrial waste’, ‘commercial waste’ and ‘trade waste’ are only used a few times in the One Plan, and not in any rules. In the cases they are used, they include solids and gases – as per the One Plan ‘waste’ definition. Therefore they aren’t used in the same context. Also, they are used as separate terms. They aren’t used in combination (whereby they would need to be replaced with the Standard term), so no change is required to the One Plan.		Insert the Standard definition (currently no definition) Note: This phrase isn’t used in the one plan, but it should appear in the definitions as it is used within the ‘wastewater’ definition.	I haven’t applied track changes to any chapters – no consequential amendments required. Note: Formatting change will need to be made in glossary for ‘wastewater’ when it’s added in – done.
Sewage	means human excrement and urine	Rule 14-16 controls discharges of human effluent for storage and treatment. ‘ Human effluent ’ in Rule 14-16 and 14-17 is a synonym for sewage and should be swapped out. Human sewage is discussed in policy 5-11 (and other places). Currently, the terms ‘sewage’ and ‘human sewage’ are used interchangeably in the One Plan.		Insert the Standard definition (currently no definition) And Change ‘human effluent’ to ‘sewage’ in 10 instances, including rule 14-16 and rule 14-17. And Change ‘untreated human effluent’ to ‘untreated sewage’ in definitions. And Change ‘human sewage’ to ‘sewage’ throughout One Plan (applicable in 12 instances).	I have applied track changed consequential amendments to: • Ch 2 • Ch 5 • Ch 8 • Ch 11 • Ch 14 And in the glossary: ‘untreated sewage’, ‘biosolids’, ‘critical infrastructure’
Wastewater	Means any combination of two or more of the following wastes: sewage , greywater , or industrial and trade waste .		TBC	Insert the Standard definition (currently no definition) And Continue to use the ‘domestic wastewater’ definition as applicable. Change the definition of ‘Domestic Wastewater’ in the One Plan: Domestic wastewater means <i>sewage wastewater</i> and greywater generated on the property from toilets, urinals, kitchens, bathrooms, showers, baths, basins, water closets and laundries. It includes such wastewater flows from facilities serving staff/ employees/ residents in institutional,	No consequential amendments required (except to ‘domestic wastewater’ definition - done). Changes made to ‘biosolids’ and ‘domestic wastewater’ definitions. Formatting changes apply to: Applies to: Ch 5 Ch 14

Standard Term	Standard definition	One Plan context	Use in One Plan	Recommended approach	Chapter/s amendments apply to
				<i>commercial and industrial establishments and small schools (under 2,000 l/d), but excludes industrial and trade waste commercial and industrial wastes, large-scale laundry activities and any stormwater flows</i>	Definitions Schedule F
Groundwater	means water occupying openings, cavities, or spaces in soil or rocks beneath the surface of the ground	Used widely throughout the One Plan, without being defined. - Chapter 2: Issue 2-1; Table 2.1(e), (f) and (o), - Chapter 5: section 5.1.1 (scope), 5.1.2 (overview), 5.1.3 (water quantity), Issues 5-1 and 5-2, Objectives 5-2 and 5-3, Policies 5-1, 5-6, 5-7, 5-8, 5-10, 5-12, 5-18, 5-20 and 5-21, section 5.5 (methods – intro; Method 5-1), section 5.6 (AER), section 5.7 (explanations and principle reasons) - Chapter 14: Objective 14-1, Policies 14-2, 14-5 and 14-7, Rules 14-13, 14-19, 14-23 and 14-28 - Chapter 16: Objective 16-1, Policies 16-1, 16-2, 16-3, 16-5, 16-6 (including Table 16.1), 16-7 and 16-8, Rules 16-2, 16-4, 16-9, 16-12 and 16-14 - Rule 18-25 - Glossary: bore, Groundwater Management Zone - Schedule D Groundwater quantity - Table F.1 – ephemeral wetland, bog and fen wetland, seepage and spring wetland, swamp and marsh wetland, saltmarsh wetland	Used throughout the One Plan without being defined – 176 uses.	Requires Schedule 1 plan change	
Habitable room	means any room used for the purposes of teaching or used as a living room, dining room, sitting room, bedroom, office or other room specified in the Plan to be a similarly occupied room.	Non-habitable structures on production land used in Policy 9-2 as an exception (in context of controlling development on land prone to flooding). Not defined. Occupied structures used in Policy 9-2 provisions re mitigation. Not defined.	N/A – ‘non-habitable structures’ and ‘occupied structures’ are used in One Plan without being defined. But these are different terms and in different contexts.	I don’t think we need to insert this definition or take any action. A ‘room’ is different to a ‘structure’ so there’s nothing in the One Plan that requires a change.	No action required
Height	means the vertical distance between a specified reference point and the highest part of any feature, structure or building above that point.	Used in various contexts throughout the One Plan: - Section 6.7 (changing heights of turbines during repowering of wind farms in areas valued as natural features and landscapes) - Section 8.1.2 (The coastal resources – describing coast as high energy due to <i>wave height</i>) - Policy 9-2(f) (<i>flood height</i>) - Rule 15-6 condition (b) – chimney height in relation to roof heights - Rule 17-10 condition (c)(iii) (describing dimensions of non-circular culverts); condition (c)(iv) (describing amount of fill above the culvert) Glossary: canopy (height of trees will vary); tussockland (grass height of 10cm)	No change needed in relation to: - reference in section 6.7 - the height of a chimney in Rule 15-6: (b) - the height of fill above a culvert in Rule 17-10. - Doesn’t need defining in policy 9-2(f). Consequential amendments needed in other places: - Section 8.1.2 - Glossary: canopy tussockland When formatting: Apply the definition in Section 6.7, Rule 15-6, Rule 17-10 Don’t define it in Policy 9-2(f).	Insert the Standard definition (currently no definition) And In section 8.1.2, change “with wave heights commonly exceeding 3 metres.” to “ <i>with wave heights commonly exceeding 3 metres in vertical distance between the crest and the trough</i> ”. And In the glossary, change the definition of canopy from “...The height of the canopy layer will vary with the structure of the vegetation.” To “ <i>...The height above ground level of the canopy layer will vary with the structure of the vegetation</i> ”. And In the glossary, change the definition of tussockland from “...greater than 10 cm in height” to “ <i>...greater than 10 cm above ground level in height</i> ”.	Consequential amendments made to - Ch 8 - Definitions: ‘canopy’ and ‘tussockland’ - done Formatting changes will need to occur for: Ch 6 – done Ch 8 - done Ch 9 - done Ch 15 - done Ch 17 – done
Industrial activity	means an activity that manufactures, fabricates, processes, packages, distributes, repairs, stores, or disposes of materials (including raw, processed, or partly processed materials) or goods. It includes any ancillary activity to the industrial activity.	- Discharges from industrial or trade premises (RMA defined term) – Rules 14-18, 15-10, 15-14, 15-17, 18-35 and 18-36. Also rule guide for Rule 15-17 refers to industrial or trade premises but not as defined term - RPS: Sections 3.7.3 Waste (‘industrial waste’), 4.1.2 Accelerated erosion (‘industrial subdivisions’), 5.1.2 Overview (‘industrial sites’), 5.1.3 Water quantity (‘industrial use’, ‘industrial plants’), 5.1.4 Water quality	<i>Previous comment:</i> Industrial or trade premises refers to the facility rather than the activity. Not a synonym. Same applies where the terms <i>industrial subdivisions</i>, <i>industrial sites</i>, <i>industrial plant</i>,	Insert Standard definition And Change “industrial” to “industrial activity” in appropriate scenarios, e.g. change “ <i>...the establishment of industrial plants.</i> ” to “ <i>...the establishment of plants for industrial activities.</i> ”	Consequential amendments made to Ch 4 Ch 5 Ch 7 Ch 15 Formatting changes will need to occur for:

Standard Term	Standard definition	One Plan context	Use in One Plan	Recommended approach	Chapter/s amendments apply to
		(‘industrial’ as a threat to water quality), Section 7.1 Scope and background (‘industrial emissions’) Regional plan – Rule 15-14 (“distribution of... fuels used for industrial processing”; “manufacture of... industrial... equipment”), Rule 18-35 (“land zoned as industrial”); definitions for ‘biosolids’ (“industrial wastewater treatment plants”), ‘domestic wastewater’ (“industrial establishments”; “industrial wastes”), ‘persistent organic pollutants’ (“industrial chemicals”; “industrial processes”), ‘solid waste’ (“industrial... waste”). Surface water value (Schedule B, and Schedule I) industrial abstraction	<i>Industrial waste links to industrial and trade waste Standard defined term.</i> We don’t need to make changes where ‘industrial or trade premises’ is used – it’s a RMA defined term.	Note: I don’t think I need to amend ‘biosolids’ definition or ‘persistent organic pollutant’ definition.	Ch 4 Ch 5 Ch 7 Ch 15 Consequential amendments made to - Definitions: ‘domestic wastewater’ - done Note: Not certain but I don’t think consequential and formatting changes will need to be made in schedule B and I for ‘industrial abstraction’
Intensive indoor primary production	means primary production activities that occur within buildings and involve growing fungi, or keeping or rearing livestock (excluding calf-rearing for a specified time period) or poultry.	Intensive farming land uses – not a defined term. Described in Policy 14-5: <i>The following land uses have been identified as intensive farming land uses:</i> (i) Dairy farming (ii) Commercial vegetable growing (iii) Cropping (iv) Intensive sheep and beef.	‘Primary’ is not used in the One Plan in the same context.	Don’t insert definition. No action required.	No action required
Primary production	means: a) any aquaculture, agricultural, pastoral, horticultural, mining, quarrying or forestry activities; and b) includes initial processing, as an ancillary activity, of commodities that result from the listed activities in a); c) includes any land and buildings used for the production of the commodities from a) and used for the initial processing of the commodities in b) but excludes further processing of those commodities into a different product d)	Dairy farming means using any area of land greater than 4 ha for the farming of dairy cattle for milk production. This includes land used as a dairy cattle grazing runoff but excludes any dairy grazing arrangement. A dairy grazing arrangement is a third party commercial arrangement between the owner of dairy cattle and another landowner for the purpose of temporary grazing. Commercial vegetable growing means using an area of land greater than 4 ha for producing vegetable crops for human consumption. It includes the whole rotational cycle, being the period of time that is required for the full sequence of crops, including any pasture phase in the rotation. Fruit crops, vegetables that are perennial, dry field peas or beans are not included. Cropping means using an area of land in excess of 20 ha to grow crops. A “crop” is defined as cereal, coarse grains, oilseed, peanuts, lupins, dry field peas or dry field beans. This definition does not include crops fed to animals or grazed on by animals on the same property. Intensive sheep and beef farming refers to properties greater than 4 ha engaged in the farming of sheep and cattle, where any of the land grazed is irrigated.	‘Primary’ is not used in the One Plan in the same context.	Don’t insert definition. No action required.	No action required
Quarry	means a location or area used for the permanent removal and excavation of aggregates (clay, silt, rock or sand). It includes the area of aggregate resource and surrounding land associated with the operation of a quarry and which is used for quarrying activities.	Rules 14-18 condition (a)(iii), 18-35 condition (b)(iii), 18-36 condition (b)(iii) – in relation to discharges of stormwater from a quarry	Rules 14-18 condition (a)(iii), 18-35 condition (b)(iii), 18-36 condition (b)(iii) – in relation to discharges of stormwater from a quarry	Requires Schedule 1 plan change	
Quarrying activities	mean the extraction, processing (including crushing, screening, washing, and blending), transport, storage, sale and recycling of aggregates (clay, silt, rock, sand), the deposition of overburden material, rehabilitation, landscaping and cleanfilling of the quarry, and the use of land and accessory buildings for offices, workshops and car parking areas associated with the operation of the quarry.		This phrase is not used in the One Plan. “Quarry” is used in three rules as per above.	Insert the Standard definition (currently no definition) Note: This phrase isn’t used in the one plan, but it should appear in the definitions as it is used within the ‘quarry’ definition.	I haven’t applied track changes to any chapters – no consequential amendments required. Note: Formatting change will need to be made in glossary for ‘quarry’ – done.

Standard Term	Standard definition	One Plan context	Use in One Plan	Recommended approach	Chapter/s amendments apply to
Reclamation	means the manmade formation of permanent dry land by the positioning of material into or onto any part of a waterbody, bed of a lake or river or the coastal marine area, and a) Includes the construction of any causeway, but b) Excludes the construction of natural hazard protection structures such as seawalls, breakwaters or groynes except where the purpose of those structures is to form dry land.	- Rule 17-2 (reclamation and drainage of regionally significant lakes) - Section 18.4 (reclamation in the CMA)	- Rule 17-2 (reclamation and drainage of regionally significant lakes) - Section 18.4 (reclamation in the CMA)	Requires Schedule 1 plan change	
Rural industry	means an industry or business undertaken in a rural environment that directly supports, services, or is dependent on primary production	'Industry' used throughout the plan as a general term. Also in the context of 'industry-based standards'. 'Rural' also used as a general term (sections 7.1 Scope and background, 7.7.1 Ambient air quality. Also in Chapter 3 ('rural residential'), Policy 5-7 ('rural land'), Method 5-7 ('rural land uses'), fire training definition ('Rural Fire Authority')	'Rural industry' is not used in the One Plan in the same context. 'Industry' used throughout the plan as a general term. Also in the context of 'industry-based standards'. 'Rural' also used as a general term (sections 7.1 Scope and background, 7.7.1 Ambient air quality. Also in Chapter 3 ('rural residential'), Policy 5-7 ('rural land'), Method 5-7 ('rural land uses'), fire training definition ('Rural Fire Authority')	Don't insert definition. No action required.	No action required
Stormwater	means run-off that has been intercepted, channelled, diverted, intensified or accelerated by human modification of a land surface, or run-off from the surface of any structure, as a result of precipitation and includes any contaminants contained within.	Used widely throughout the One Plan, without being defined. Rules in Chapter 14 cover stormwater that is being discharged to land or an effluent pond, for example. - Policy 3-1, section 4.1.2 (accelerated erosion), Policy 12-5, Rules 18-35 and 18-36 - Chapter 5: Issue 5-1, Methods 5-5 and 5-6 - Chapter 9: footnote, Policies 9-2 and 9-5 - Chapter 14: Policy 14-7, Rules 14-11, 14-17, 14-18, 14-19, 14-23, 14-24, 14-26 and 14-27, section 14.6 (stormwater rules) Glossary: domestic wastewater, interceptor system	One Plan includes naturally flowing, 'unmodified' runoff and discharge as well? Check with Science and River Management Check all uses of "run-off" PITA	Requires Schedule 1 plan change	

Other changes:

Formatting changes where we need to:

- change the ^ to a * or
- define the term with an * where it is currently undefined but used in the same context

plus add the term to the definitions.

Term	Formatting changes applied to the following chapters
Bed	Done. Ch 1, 4, 5, 6, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, glossary, schedule B2, schedule E
Best practicable option	Done. Ch 5, 7, 14, 15, 18, glossary
Coastal water	Done. Ch 8, 18, glossary
Contaminant (and contaminants)	Done. Ch 2, 3, 4, 5, 7, 8, 11, 13, 14, 15, 16, 17, 18, glossary
Contaminated land	Done. Ch 3, 14, 18, glossary
Discharge	Done. Ch 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, glossary, Schedules B2, I , E
Effect	Done. Ch 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 13, 14, 15, 16, 17, 18, 19, glossary, Schedule E, F,
Environment	Done. Ch 1, 2, 3, 4, 7, 9, 10, 11, 12, 14, 15, 19, Glossary
Esplanade reserve	Done. Ch 19, glossary
Esplanade strip	Done. Ch 19, glossary
Fresh water	Done. Ch 5, 6, 8, 13, 14, 16, glossary, Sch I
Hazardous substance	Done. Ch 2, 10, 14, 15, glossary
Historic heritage	Done. Ch 2, 6, 8, 14, 15, 16, 18, glossary, Schedule G, Schedule I
Land	Done. Ch 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, Sch F, glossary
Natural and physical resources	Done. Ch 1, 2, 6, 9, glossary
Natural hazard	Done. Ch 1, 8, 9, 10, 13, 18, glossary
Noise	Done. Ch 11, 18, glossary
Raft	N/A – doesn't apply in the context of the one plan use
River	Done. Ch 1, 2, 4, 5, 6, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, Sch E, F, I, Glossary
Road	Done. Ch 3, 4, 14, 15, 19, glossary, Schedule B, Schedule F
Subdivision	Ch 2, 3, 4, 6, 8, 9, 14, 15, 19, glossary
Sustainable management	Done. Ch 3, 8, glossary
Territorial authority (and authorities)	Done. Ch 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 14, 15, 17, 19, Schedule I, glossary
Waterbody (and water body and water bodies)	Done. Ch 1, 4, 5, 6, 9, 13, 14, 15, 16, 17, Schedule B1, B2, glossary
Wetland	Done. Ch 1, 2, 4, 5, 6, 8, 13, 14, 15, 16, 18, glossary, Schedule F, Schedule G, Schedule I
Lake	Done. Ch 2, 4, 5, 6, 9, 11, 12, 13, 14, 15, 16, 17, 19, Sch E, F, glossary
Structure	Done. Ch 3, 5, 6, 8, 9, 11, 13, 15, 17, 18, Sch B2, glossary
Water	Done. Ch 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 13, 14, 15, 16, 17, 18, glossary, Schedule B1, B2, E, F, G, I