

**BEFORE WAIKATO REGIONAL COUNCIL
HEARINGS PANEL**

UNDER the Resource Management Act 1991 (**RMA**)

IN THE MATTER OF Proposed Plan Change 1 to the Waikato Regional
Plan and Variation 1 to that Proposed Plan Change:
Waikato and Waipa River Catchments

Helen Marie Marr

**PRIMARY EVIDENCE ON BEHALF OF THE AUCKLAND/WAIKATO &
EASTERN REGION FISH AND GAME COUNCILS (“FISH & GAME”)**

SUBMITTER ID: 74985

Hearing Block 2

Dated: 3 May 2019

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QUALIFICATIONS AND EXPERIENCE

- 1.1 My full name is Helen Marie Marr. I have the qualifications and experience set out in the evidence I presented at Block 1 on the Plan Change 1 ('PC1') hearings, dated 15 February 2019.
- 1.2 I have read the Environment Court's Code of Conduct for Expert Witnesses, and I agree to comply with it. I confirm that the issues addressed in this brief of evidence are within my area of expertise.
- 1.3 I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed. I have specified where my opinion is based on limited or partial information and identified any assumptions I have made in forming my opinions.

2 SUMMARY STATEMENT

- 2.1 In my opinion, in order to achieve the objectives of PC1 and give effect to the Vision and Strategy, point source discharges ought to be explicitly included in the overall water quality framework of PC1. PC1 should set out the total catchment load of contaminants in the river that enables the objectives to be achieved. PC1 should then set out how much of

that load is to be allocated to diffuse discharges from farming, and how much to point source discharges (including those from infrastructure and industry).

- 2.2 The appropriate allocation for industry and infrastructure that recognises their benefits should be embedded in that overall allocation framework of the plan. In my opinion the current wording of Policy relating to point source amounts to a policy 'tail wind' for point source discharges for regionally significant infrastructure and regionally significant industry (RSI&I) which is not supported by the Waikato Regional Policy Statement (WRPS) and will not assist in achieving the Vision and Strategy. Policy for point source discharges does not give enough emphasis to achieving the freshwater objectives of the plan.
- 2.3 Policy 11 allows for offsets for residual adverse effects from infrastructure. It currently does not include all the best practice principals for offsetting endorsed by the Court. I recommend that Policy 11 and the definition of offset be amended to add reference to providing for a net gain, demonstrated rigorously, that is clearly additional to gains made without the offset.
- 2.4 The nitrogen reference point restriction in PC1 and the GFP approach recommended in the s42A report will both act to entrench a grandparented approach to land use. While a grandparenting regime is very effective at achieving a maintenance or reduction in the amount of nitrogen reaching waterbodies, it is inefficient and creates unfairness.
- 2.5 A grandparenting type approach rewards existing polluters by allowing their land use to continue (albeit with some policy aspirations for reductions) and restricts owners of good land from developing that land to its potential.
- 2.6 The proposed and recommended rules to manage farming rely heavily on Farm Environment Plans (FEP). I support in principle a management plan type of approach for farming, but it is critical that the objectives of the FEP are set out in a perfectly clear manner in both PC1 and any resource consent that follows, and that the FEP is prepared appropriately, including using clear unambiguous wording that can be used to assess compliance. Without these features the FEP approach will not achieve the objectives of the plan. Unfortunately, I am not able to ascertain with certainty if the proposed FEP framework achieves these goals, as the evidence, caucusing and hearing for the content of FEPs has yet to occur. I will return to that topic in Hearing Stream 3.
- 2.7 I do not support the recommended changes to separate the hybrid land use and discharge rules for farming into separate land use rules and a permitted activity for the associated discharge. Hybrid rules and their implementation are common features in many plans including the Waikato Regional Plan, so I can see no 'practical implementation' issues that

cannot be overcome by a sensible and pragmatic approach to consent administration. Having the rules separated creates a practical nonsense and cannot comply with the requirements of section 70 of the RMA to avoid significant adverse effects for permitted activities.

- 2.8 I recommend changes to the wording of the rules addressing changes in land use. The recommended provisions appear to have some inadvertent loopholes for conversions from woody vegetation to low intensity land use, and for conversion to more intensive land uses that occur in the future. I have recommended some changes to the rules to fill these loopholes.
- 2.9 The management of riparian areas, setbacks for cultivation and stock access to waterbodies are inextricably linked. Appropriate setbacks for cultivation and fencing in PC1 need to be cognisant of the benefits of appropriately vegetated riparian margins, and at the very least, not hinder future requirements for riparian vegetation by requiring fences too close to waterbodies and at best, facilitate, encourage or require appropriate vegetation in riparian areas for its many ecosystem health and stream management benefits.

3 SCOPE OF EVIDENCE

- 3.1 I have been asked by Auckland/Waikato & Eastern Region Fish and Game Councils (**Fish & Game**) to prepare evidence in relation to their submissions on Plan Change 1 (**PC1**) for Hearing Block 1.
- 3.2 This evidence addresses submissions on the following areas:
- Appropriate policy for point source discharges
 - Policy and rules controlling farming
 - Management of cultivation
 - Stock exclusion from waterbodies

4 EVIDENCE

- 4.1 I deal with the overarching issue of appropriate terms of resource consents first. I then turn to the specific provisions dealing with point source discharges and management of farming activities.

5 Appropriate policy for point source discharges

- 5.1 The proposed approach in PC1 leaves allocation decisions entirely to later decisions on individual consent applications. This 'case by case' approach will lead to a 'first in first

served' allocation scenario where there is a very real risk that individual consent decisions will result in over allocation, and that over allocation will be 'locked in' through long term consent terms.

- 5.2 The result of that will be that at the next plan review, with allocation for point source discharges locked in for a long term through resource consents, the necessary reductions in contaminant loads will have to come from further reductions in diffuse discharges – farming. This may result in farming being asked to do more than their fair share.
- 5.3 In my opinion, in order to achieve the objectives of PC1 and give effect to the Vision and Strategy, point source discharges ought to be explicitly included in the overall water quality framework of PC1. As I stated in my evidence for Hearing Stream 1, and as I set out later in this evidence in relation to managing farming, PC1 should set out the total catchment load of contaminants in the river that enables the objectives to be achieved. PC1 should then set out how much of that load is to be allocated to diffuse discharges from farming, and how much to point source discharges (including those from infrastructure and industry). The appropriate allocation for industry and infrastructure that recognises their benefits appropriately should be embedded in that overall allocation framework of the plan. Policy should then guide resource consent decisions to ensure that the maximum allocations are not exceeded.
- 5.4 A comprehensive allocation approach with the elements I describe above is the only way to ensure that decisions made on individual applications will 'add up' to achieve the desired outcome in the river.
- 5.5 I appreciate it is a challenge to provide a comprehensive contaminant allocation framework. If the hearing panel is not minded to do that, in my opinion PC1 should at a minimum include more balanced policy settings for point source discharges. I discuss those policies next.
- 5.6 Policy 10**
- 5.7 Fish and Game sought deletion of Policy 10 or its inclusion as a consideration in Policy 12¹.
- 5.8 Policy 10 sets an unqualified direction to decision makers to 'provide for' regionally significant infrastructure and regionally significant industry ('RSI&I') when deciding resource consents for point source discharges. To 'provide for' means "to cause (something) to be available or to happen in the future²". In my opinion policy that states

¹ PC1-10884

² Merriam Webster Dictionary

that RSI&I are to be 'provided for' sets an expectation that those discharges should be able to continue in the future, which is a presumption that they are appropriate.

- 5.9 Policy 10 is perhaps 'qualified' when read alongside Policy 11, which requires the use of the Best Practicable Option (BPO). However, Policy 10 is not qualified by reference to the water quality attribute state objectives, in Policy 12, because Policy 12 only requires a decision maker to 'consider' the contribution of a point source discharge to those goals, and to 'take into account' the relative contribution of the discharge to that catchment.
- 5.10 In my opinion the current wording of Policy 10 and that wording relative to the qualifying water quality concerns amounts to a policy 'tail wind' for point source discharges for RSI&I. It creates a presumption that a point source discharge for RSI&I will be granted consent provided they use the BPO. Other discharges, including diffuse discharges do not have this presumption of appropriateness that Policy 10 provides.
- 5.11 The s42A report argues that there is sufficient direction in the RPS to justify specific policy direction for RSI&I³ and for this direction to be different than that for farming. I disagree.
- 5.12 The Waikato Regional Policy Statement ('WRPS') policies relating to regionally significant infrastructure ('RS infrastructure') are concerned with the management of land use to enable efficient use and operation of that infrastructure. They do not direct any particular approach to managing the adverse effects of discharges that result from RS infrastructure compared to other discharges. The general approach to managing adverse effects in the WRPS applies, that is, to:
- seek to achieve the freshwater objectives,
 - provide for land-based mitigation and other mitigations, and
 - provide for off-setting where adverse effects cannot be avoided or remedied⁴.
- 5.13 I do not find anything in the WRPS that indicates that RS Infrastructure occupies a special place in the scheme of managing cumulative adverse effects on water quality.
- 5.14 Regionally significant industry ('RS Industry') has a slightly different framework in the RPS. Specific policy⁵ recognises that RS Industry should be provided for by (for example) recognising its value and benefits. That policy also recognises that the adverse effects of RS Industry must be avoided, remedied and mitigated. Importantly, that policy:

³ S42A report paragraph 1055 to 1058

⁴ RPS Implementation method 8.3.1 for example.

⁵ RPS Policy 4.4

- puts RS Industry *alongside* primary production activities,
- provides for the benefits of primary production to be recognised in the same way, and
- recognises that there are competing demands for resources.

5.15 RPS policy does not give RS Industry primacy over primary production or environmental goals.

5.16 The lack of meaningful definition for RS Industry is also extremely problematic in my opinion. The definition from the RPS is very vague and open to interpretation. I do not think it is appropriate for this to be copied into PC1, particularly if it is linked to such a strong presumption of appropriateness as the current policy suite in Policies 10-13 contains. The RPS definition essentially enables any industry to argue that they are regionally significant, potentially giving every point source discharge the presumption of appropriateness.

5.17 As I have stated earlier, in my opinion the most effective and efficient policy framework would be to include point source discharges in a comprehensive overall allocation framework for contaminants in Waikato and Waipā catchments. However, at a minimum the current framework should at least ensure that:

- point source discharges are contributing to the achievement of the water quality objectives and
- the improvement in water quality is proportionate to their contribution to the contaminants.

5.18 In my opinion policies 10 and 12 should be combined to provide a more balanced framework. I have set out my recommended changes to the policies and rules in detail in Appendix 1.

5.19 Recommendation

Delete Policy 10 and amend Policies 12 and 13 as follows:

Policy 12: ~~Additional considerations for~~ Considering point source discharges in relation to water quality targets/Te Kaupapa Here 12: He take anō hei whakaaro ake mō ngā rukenga i ngā pū tuwha e pā ana ki ngā whāinga ā-kounga wai

When deciding a resource consent application, cConsider the contribution made by a point source discharge to the nitrogen, phosphorus, sediment and microbial pathogen catchment loads and the impact of that contribution on the likely achievement of the short term water quality

~~attribute states[^] targets[^] in Table 3.11-1 Objective 3 or the progression towards the 80-year water quality attribute states[^] targets[^] in Objective 1 Table 3.11-1, taking into account:~~

aa. The benefits of the continued operation of regionally significant infrastructure and regionally significant industry; and

- a. The relative proportion of nitrogen, phosphorus, sediment or microbial pathogens that the particular point source discharge contributes to the catchment load; and
- b. Past ~~technology~~ upgrades undertaken to ~~model, monitor and~~ reduce the discharge of nitrogen, phosphorus, sediment or microbial pathogens within the previous consent term; and
- c. ~~The ability~~ Whether it is appropriate to stage future mitigation actions to allow investment costs to be spread over time ~~and to meet the water quality attribute states[^] targets[^] specified above;~~ and
- d. ~~The diminishing return on investment in treatment plant upgrades in respect of any resultant reduction in nitrogen, phosphorus, sediment or microbial pathogens when treatment plant processes are already achieving a high level of contaminant reduction through the application of the Best Practicable Option*.~~

Policy 13: Point sources consent duration/Te Kaupapa Here 13: Te roa o te tukanga tonu whakaetanga mō te pū tuwha

When determining an appropriate duration for any point source discharge consent granted consider the following matters:

- a. The appropriateness of a longer consent duration ~~A consent term exceeding 25 years, where the applicant demonstrates that the discharge is consistent with achieving the water quality attribute states set out in Table 3.11-1 the approaches set out in Policies 11 and 12 will be met; and~~
- ab the risk of a longer consent duration where the discharge is not consistent with achieving the water quality attribute states set out in Table 3.11-1 or where future regional plan changes or regional plans are likely to provide a comprehensive approach to allocation of both point and nonpoint source discharges; and
- b. The magnitude and significance of the investment made or proposed to be made in contaminant reduction measures and any resultant improvements in the receiving water quality; and
- c. The need to provide appropriate certainty of investment where contaminant reduction measures are proposed (including investment in treatment plant upgrades or land based application technology).

5.20 Policy 11

5.21 Policy 11 deals with two matters, the best practicable option for discharges, and offsetting. I support the officers recommendation to separate these into two paragraphs to add clarity.

5.22 Fish and Game made submissions on the offsetting part of Policy 11. Fish and Game sought changes to both Policy 11 and to the definition of offsetting⁶. Fish and Game sought that the policy be made more consistent with best practice for offsetting, including:

- stating when offsetting is not appropriate,
- that it provide for net gain, and
- that the offset be in the same sub-catchment⁷.

5.23 Fish and Game sought that the definition of offset include the key principles of offsetting from best practice guidance⁸.

5.24 The section 42A report recommends changes to strengthen the hierarchy for offsetting. It is a key best practice principle for offsetting that effects are avoided if possible, and if avoidance is not possible they are mitigated and only then may an offset be used for effects that cannot reasonably be avoided or mitigated. I support the recommended changes to insert this hierarchy more appropriately into Policy 11.

5.25 I understand that recent case law⁹ references with approval the approach to offsetting set out in the Horizons Regional Council One Plan, as being consistent with international best practice principles for offsets and the purpose of the RMA.

5.26 The One Plan offset policy addressing the principles of offsets is Policy 13-4(d).

“An offset assessed in accordance with b(iii) or (c)(iv), must:

- i. provide for a net indigenous biological diversity[^] gain within the same habitat type, or where that habitat is not an area of significant indigenous vegetation or a significant habitat of indigenous fauna, provide for that gain in a rare habitat* or threatened habitat* type, and*
- ii. reasonably demonstrate that a net indigenous biological diversity[^] gain has been achieved using methodology that is appropriate and commensurate to the scale and intensity of the residual adverse effect[^], and*
- iii. generally be in the same ecologically relevant locality as the affected habitat, and*
- iv. not be allowed where inappropriate for the ecosystem or habitat type by reason of its rarity, vulnerability or irreplaceability, and*

⁶ I note the definition of offset is not dealt with in the s42A report, perhaps in error.

⁷ PC1-10887

⁸ PC1-11018

⁹ *Oceana Gold NZ Limited v RFBPS* [2019] NZEnvC 41

- v. *have a significant likelihood of being achieved and maintained in the long term and preferably in perpetuity, and*
- vi. *achieve conservation outcomes above and beyond that which would have been achieved if the offset had not taken place.”*

5.27 While this policy deals specifically with biodiversity effects and offsets, I believe the principles are still relevant for freshwater.

5.28 Policy 11 and the definition of offset do not include the principles (set out in best practice guidance and in case law) that:

- the offset should provide a net gain,
- the gain should be demonstrated with a level of rigour commensurate to the effect,
- some effects or impacts cannot be off set, and
- the concept of ‘additionality’ – that is that the gains made by the offset would not have been achieved without the offset.

5.29 I believe all the relevant principles should be included in Policy 11 or the definition. I have recommended wording for the policy and the definition of offset below.

5.30 Recommendation

Amend Policy 11 as follows:

Policy 11: Application of Best Practicable Option and mitigation or offset of effects to point source discharges/Te Kaupapa Here 11: Te whakahāngai i te Kōwhiringa ka Tino Taea me ngā mahi whakangāwari pānga; te karo rānei i ngā pānga ki ngā rukenga i ngā pū tuwha

Require any person undertaking a point source discharge of nitrogen, phosphorus, sediment or microbial pathogens to water or onto or into land in the Waikato and Waipa River catchments to, as a minimum, adopt the Best Practicable Option* to avoid or mitigate the adverse effects of the discharge, ~~at the time a resource consent application is decided.~~

~~Where it is not practicable to avoid or mitigate all any adverse effects, cannot be reasonably avoided, they should be mitigated, and where they cannot be reasonably mitigated, an offset measure may~~ should be proposed provided for in an alternative location or locations to the point source discharge, for the purpose of ensuring positive effects on the environment to lessen any residual adverse effects of the discharge(s) that will or may result from allowing the activity provided that the:

- a. Primary discharge does not result in any significant or toxic adverse effect at the point source discharge location; and

- b. Offset measure is for the same contaminant; and
- c. Offset measure occurs preferably within the same sub-catchment in which the primary discharge occurs and if this is not practicable, then a sub-catchment within the same Freshwater Management Unit^Δ or a Freshwater Management Unit^Δ located upstream; and
- d. Offset measure remains in place for the duration of the consent and is secured by consent condition or another legally binding mechanism so that it offsets the residual adverse effect for at least the duration of effect; and
- e. Offset measure provides for a net decrease in the amount of the relevant contaminant in the receiving environment.

And amend the definition of offset as follows:

Offset/s: For the purpose of Chapter 3.11 means for a specific contaminant/s a measurable conservation action, demonstrated through robust and appropriate methodology, that reduces the intensity, extent and/or duration of residual adverse effects on water quality and achieves conservation outcomes above and beyond that which would have been achieved if the offset had not taken place.

6 Policy and rules controlling farming

- 6.1 Fish and Game made multiple submissions on the policy and rule framework for managing farming. In particular, the submission supported controlling farming through rules, and sought amendment to the policies and rules to require cumulative adverse effects of multiple farms in particular catchments to be considered. This includes through methods such as a sub-catchment nitrogen load limit¹⁰, and its allocation to land based on science defined limits¹¹. Fish and Game also supported submissions from Beef and Lamb and the Director-General seeking allocating of nitrogen loads to land based on the natural capital of that land¹².
- 6.2 In response to submissions from all parties, the s42A report recommends large changes to the policy rule framework for farming. Many of those changes improve the framework in my opinion, for example;
- clarifying the activity status of rules,
 - controlling intensification activities such as winter grazing, feedlots and cropping, and

¹⁰ PC1-10879, V1PC1-251, PC1-10876

¹¹ PC1-10875

¹² FSPC1-374 (Director General) and FSPC1-308 (Beef and Lamb)

- removing the permitted activity status for farms in a certified industry scheme.
- 6.3 In the interests of reducing the volume of evidence, I do not go into detail on the changes made in the s42A report that I support.
- 6.4 Some of the changes made in the s42A report in my opinion reduce the effectiveness of the policy and rule framework in the achieving the objectives of PC1 and giving effect to the RPS, NPSFM and Vision and Strategy. In particular, separating the rules into separate land use and permitted discharge rules,
- 6.5 I also have concerns about the efficiency and effectiveness of the PC1 framework as a whole.
- 6.6 The following sections of my evidence deal with these matters in turn.
- 6.7 Efficiently and effectively managing cumulative effects of farming in PC1**
- 6.8 The cumulative or collective contribution by individual properties to environmental degradation makes the management of farming to achieve environmental outcomes a difficult problem to address. How do you control the individually minor activities of an individual farm to address a catchment wide problem? How do you ensure that each farm is 'doing its share' and that no one is required to do more than their share?
- 6.9 Cumulative effects are best managed collectively through a well-structured plan framework that clearly sets out the goals and the contribution each individual must make to achieving that goal. PC1 in both its proposed and recommended forms, fails to do this. Concepts like 'Good Farm Practice' will likely fail to achieve the equitable reductions in contaminants that are necessary to achieve instream outcomes, because there is so much uncertainty in what is required of each individual.
- 6.10 GFP, like the NRP restrictions in PC1, also essentially entrenches a grandparented approach to land use. While a grandparenting regime is very effective at achieving a maintenance or reduction in the amount of nitrogen reaching waterbodies it is inefficient and creates unfairness.
- 6.11 A grandparenting type approach rewards existing polluters by allowing their land use to continue (albeit with some policy aspirations for reductions) and restricts owners of good land from developing that land to its potential. This shortcoming is recognised in the policy framework that allows land returned under Te Tiriti o Waitangi settlements and multiple owned Māori land to operate outside the grandparented/reductions framework. However,

Māori owned land is not the only land that may have been under-developed and that is likely to be affected by this feature of PC1.

- 6.12 Despite attempting to reduce the overall discharge of contaminants from farming, fundamentally PC1 locks in existing land use patterns and fails to provide a clear, certain, equitable and transparent framework for reducing the loss of contaminants to restore the Waikato and Waipā Rivers. In my opinion a likely outcome of the current or recommended framework is uneven imposition of GFPs and a likely failure to achieve short term goals for the waterbodies. This is because those individuals who are committed to improving practice will do so, and those who are not will have FEPs prepared which provide the minimum change required to gain consent. This will result in uneven application of GFPs and as a result, uneven and uncertain improvements in water quality outcomes.
- 6.13 The s42A report recommends removing the requirement to comply with an NRP from the permitted activity rules and the strongly worded matter of control from the rules, and replace it with a regime which relies on an NRP being specified in the FEP and reductions achieved by reliance on implementing GFP. GFP is defined as essentially 'whatever the industry thinks is GMP'. This is extremely uncertain. It is unclear how much, if any change will be required and how much, if any impact this will have on improving water quality. For example, will only no or low cost mitigations be required? Will this result in higher cost but extremely effective mitigation being ignored because of a reluctance to impose costs on an individual farmer?
- 6.14 I anticipate that the conditions placed on consents sought under this framework will be either be based on accepting the FEP at face value or an expensive review of each FEP will have to be undertaken to ensure that the mitigations and management practices recommended in the FEP are in fact good or best practice for the property. Neither of these is a good or efficient option for the management of farming.
- 6.15 The necessary, in my opinion, alternative to this, is for PC1 to clearly state in the plan the reductions in each contaminant in each sub-catchment necessary to achieve the objectives of PC1. Resource consent applications for each property in a sub-catchment should be received and processed at a similar time, with consent requirements staged based on catchment priorities. Each and all applications should be assessed as to the extent that individually and collectively they will achieve the required outcomes. Resource consent conditions should allocate the required change equitably amongst all the contributing discharges (and this should include point source discharges as I discuss earlier in this evidence). This should be secured as resource consent conditions specifying particular management actions or restrictions for each property. Collective actions and global sub-catchment consent applications should be actively encouraged by the PC1

framework. Groups of farmer working together, or collective actions such as edge of field mitigations or offsetting by retirement of land should be considered. This is much more likely to lead to efficient use of land than the 'first up best dressed' individual approach promoted by PC1.

6.16 I appreciate it is a challenge to provide a comprehensive contaminant allocation framework. If the hearing panel is not minded to do that, in my opinion PC1 should at a minimum include appropriate clear and directive policy that will achieve the outcomes sought in the objectives. This should include ensuring that each farm property is contributing to the achievement of the water quality objectives and that the improvement in water quality is proportionate to both the reduction in contaminants required in the sub-catchment and their particular contribution to the contaminants.

6.17 I have made comment on and recommended changes below to the specific wording of the policies and rules relating to farming. I have provided this with the intention of assisting the panel to amend PC1 to be as good as possible within the current framework. However, to be clear, I do not support the current framework, as I do not believe it is effective at achieving the objectives of PC1 or that it is the most efficient way of achieving the outcomes it will actually achieve (I do not support a grandparenting approach to allocating contaminant discharges).

6.18 Separating the rules into separate land use and permitted discharge rules

6.19 PC1 as notified contained rules controlling farming that are combined land use and associated discharge rules, or 'hybrid' rules.

6.20 The s42A report recommends separating the land use and discharge components of the rules. This will create land use rules with detailed conditions on how the land use will be undertaken, including the level of discharge of contaminants allowed, and a generic permitted discharge rule.

6.21 The s42A report discusses this briefly¹³ highlighting concerns about uncertainty and the precedent of separate rules in the Taupō catchment rules.

6.22 The s42A report argues that a hybrid rule "...creates uncertainty, particularly as to what kind of activity is being authorised by a resource consent." The report does not discuss what this uncertainty is. In my opinion it is clear and logical that a consent applicant would seek and be granted both land use consents and discharge permits for the associated discharges.

¹³ Paragraphs 298 and 299

- 6.23 When considering the rules for the Taupō catchment, the Court identified several matters set out in the RMA that apply to discharge consents, but not to land use consents. Some of these sections require specific considerations before granting a discharge permit that do not apply to a land use consent. For example s105 requires the consent authority to have regard to the nature of the discharge and the sensitivity of the receiving environment to adverse effects when considering a discharge permit. This requirement does not exist for land use consents. While those matters are required considerations for a discharge permit, they are not excluded from consideration for land use consents. As the activities are so inter-related (as I discuss later in this evidence) in my opinion it is not unreasonable to consider them for a combined application. In my opinion it would be a worse outcome to *not* require the decision makers to consider those key matters related to discharges when considering a consent application for farming.
- 6.24 In my experience it is not uncommon for plans to control both land use and associated discharges in the same rule, and it is not unusual for activities to be granted land use and associated discharge permits in the same decision document with associated resource consent conditions.
- 6.25 Waikato Regional Plan itself contains examples of hybrid rules. For example, Rule 4.2.8.2 is a controlled activity rule for bridges which do not meet the permitted activity rule¹⁴. This rule controls section 13 beds of river activities (the use, erection, reconstruction, placement, alteration or extension of a bridge and bed disturbance) and section 15 discharges ('any discharge of sediment associated with construction activities'). Presumably resource consents are issued under this rule and others like it without creating excessive uncertainty.
- 6.26 Other regional plans control farming and associated discharges as hybrid rules. For example, the Horizons Regional Council One Plan and the Hawkes Bay Regional Council rules for the Tukituki catchment. These are both hybrid rules and consents issued under them contain both land use and discharge permits.
- 6.27 In my opinion separating the use of land for farming from its associated and inevitable discharge creates a practical nonsense. The activity of the land use and the resulting discharges are inextricably linked. If the two were controlled by separate rules which both required a consent a council would not allow the two consent applications to be made separately, they would inevitably be bundled and considered together. It is the management of the land that results in or mitigates the discharge of contaminants. A separate land use consent must contain conditions about the associated discharges or

¹⁴ Rule 4.2.8.1 which itself is also a hybrid rule

mitigations to reduce contaminant discharges. In my mind this creates more confusion than the hybrid alternative – a land use rule that contains conditions to control discharges is less straight forward in my mind than a hybrid rule and consent.

- 6.28 There is a significant difference between the permitted rule proposed in the s42A report and the permitted rule in the Taupō catchment or the Canterbury Land and Water Plan (another plan that uses this split land use and discharge approach) – and that is the breadth of discharges captured by the rule.
- 6.29 The Taupō discharge rules permit the discharge of nitrogen, effluent and fertiliser. Permitted rules in Canterbury permit the discharge of nutrients only. PC1 aims to manage the discharge of a much wider suite of contaminants than either of these: nitrogen, phosphorus, sediment and microbial contaminants¹⁵.
- 6.30 Discharges of all these contaminants would be permitted provided the land use is authorised¹⁶. Consents can be granted under PC1 with a wide degree of discretion and are likely to rely on a FEP to define and control the land use activities. The discharges are then permitted, based on controls that are unknown at this time. This is a large amount of uncertainty for an activity that cumulatively has significant adverse effects. This is in contrast to rules in Canterbury and Taupo which have specific numeric nitrogen limits that must be complied with in the land use rules.
- 6.31 I also have concerns about the legality of the permitted discharge rule recommended in the s42A report. Section 70 of the RMA restricts the use of a permitted activity rule for discharges to circumstances where the council is satisfied that certain effects will not arise:
- “(c) the production of conspicuous oil or grease films, scums or foams, or floatable or suspended materials:*
 - (d) any conspicuous change in the colour or visual clarity:*
 - (e) any emission of objectionable odour:*
 - (f) the rendering of fresh water unsuitable for consumption by farm animals:*
 - (g) any significant adverse effects on aquatic life...”*
- 6.32 These restrictions apply to discharges that cause these effects by themselves or in combination with the same, similar, or other contaminants. This means cumulative adverse effects are relevant.
- 6.33 The officers may have attempted to ‘write their way out’ of the restrictions in s70 by adding as a condition of the rule that certain adverse effects are not caused. There are two

¹⁵ Permitted and Non-complying under Rule 3.11.5.9

¹⁶ Under Rule 3.11.5.8

problems with this recommended approach. The first is that it does not include all the restrictions from s70. Clause (e) relating to objectional odour is absent from the list. More importantly, the consideration of the discharge in combination with other discharges is absent. This means that only individual and not cumulative effects have been restricted.

6.34 Evidence has been presented at this hearing that changes in visual clarity and significant effects on aquatic life have been and are being measured in the Waikato and Waipā catchments. Even if the rule is amended to include all the restrictions from s70, because of existing cumulative effects the requirements of s70 will not be met. The rule cannot comply with the law.

6.35 Even if there was an argument that some discharges could comply because the tests in s70 could be complied with, this assessment would require a catchment understanding of discharges and of cumulative adverse effects. It is often the case that it is the cumulative discharges that are the cause of adverse effects, not just one farm but many farms in a sub-catchment that cause an effect and sometimes many sub-catchments contributing to effects in the main stem of a river or estuary. It is not something that can be assessed at an individual farm level and is not a good candidate for a permitted activity. Cumulative effects are best assessed at the catchment level, by a body such as the regional council, not by individuals. Ideally this assessment would then be reflected in the regional plan framework through a comprehensive regime that allocates allowable discharges to individuals and achieves the desired catchment outcome, as I have discussed earlier in this evidence.

6.36 Reliance on FEPs to achieve outcomes

6.37 The proposed and recommended rules rely on the FEP to define the actions and outcomes required on farms. Because the content of the FEP and their objectives are to be the subject future caucusing and hearing, I am unable to ascertain if an FEP as prescribed by PC1 will be an effective method for achieving the objectives of the plan.

6.38 The use of management plans in resource consents is a reasonably common practice for large or complex activities. It allows the resource consent to set the outcome sought, and requires management plans to be prepared that demonstrate how that outcome will be achieved. For example a resource consent involving large earthworks may state in conditions that sediment run off from the earthworks must be managed so that stormwater discharges to the stream do not cause a specified change in clarity in a rainfall event. The consent then specifies that a sediment and stormwater management plan must be prepared in accordance with a particular set of guidelines to demonstrate how that outcome will be achieved on site. The management plan is submitted to the council so

that it can be reviewed to ensure it achieves the outcomes set out in the consent. Further consent conditions require management to be consistent with the management plan, and compliance can be assessed against the actions set out in the management plan.

6.39 In principle, I support the use of an FEP as a type of management plan to set out how a particular farm will achieve the objectives of the resource consent. However, in order to be effective the approach must contain particular key elements:

- the resource consent needs to clearly state the environmental outcome sought
- the FEP needs to be prepared appropriately
- the management actions set out in the FEP must achieve the outcome and
- those management actions must be set out in a clear and unambiguous way, that it is possible to assess compliance against.

6.40 Many farm plans I have seen in the past use wording that is unclear and ambiguous to describe mitigation measures. For example 'feed the crop furthest away from the waterbody first to maintain a buffer, if practicable' or 'use best practice cultivation techniques'. This type of language is not capable of consistent interpretation and it is difficult to assess whether or not the FEP has been complied with.

6.41 While a framework that relies on an FEP is potentially very useful, it is unclear at this time if the FEP framework in PC1 includes all the necessary components to be effective. I will return to this topic in Hearing Block 3.

6.42 Managing properties on the basis of risk

6.43 Both the proposed and recommended rules manage farming activities by their level of risk of contaminant loss. Permitted activities do not require FEPs to tailor risk management, but instead require that certain high risk activities are not undertaken on the property.

6.44 In principle, this is a sensible approach. If targeted correctly it can ensure that low risk activities can proceed with minimum regulation, while higher risk activities receive a higher level of scrutiny.

6.45 In order to be effective, it is important that high and low risk activities are identified appropriately.

6.46 Dr Eivers supports a risk based approach to regulation and has provided evidence that there are two categories of higher risk activities;

- those that are a high risk of contaminant loss where ever they occur on the property (Dr Eivers' Grade A - High Risk CSAs) and

- those that are a high risk if they occur in close proximity to waterbodies (Dr Eivers' Grade B – Moderate to Low Risk CSAs).

6.47 Based on Dr Eivers' evidence I recommend that the thresholds and activities in the permitted activity rule be replaced with reference to those CSAs and thresholds. This would provide a much more robust definition of risk and enable tailored response through an FEP.

6.48 Recommendation

6.49 Amend the exclusions for Rule 3.11.5.1 to refer to CSAs:

Rule 3.11.5.2 - Permitted Activity Rule – Small and Low Intensity farming activities

The use of land for farming activities ~~(excluding commercial vegetable production) and the associated diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens onto or into land in circumstances which may result in those contaminants entering water where the property area is greater than 4.1 hectares, and has more than 6 stock units per hectare or is used for arable cropping,~~ is a permitted activity subject to the following conditions:

A. For all properties:

2A. The farming activities do not form part of an enterprise; and

2B. No commercial vegetable production occurs; and

2C. No dairy farming or grazing of dairy cattle occurs; and

2D. There are no Grade A CSAs on the property; and

2E. There are no Grade B CSAs that are within 10 metres of a waterbody on the property.

7 Management of sediment and riparian vegetation

7.1 Dr Daniel explains in his evidence for this Hearing that recent work undertaken in the Waikato Region has shown that sediment and riparian management are 2 of the 4 main factors influencing ecosystem health, with sediment management being the most significant factor. Dr Daniel and Dr Canning gave evidence in Hearing Stream 1 about the impact of both deposited and suspended sediment on ecosystem health, including its influence on trout populations. This is particularly an issue in the Waipā and headwater catchments.

7.2 Managing deposited and suspended sediment is critical to maintaining healthy aquatic ecosystems and achieving the aims of the WRPS, the NPSFM and the Vision and Strategy.

7.3 Dr Eivers discusses in her evidence that the key measures to reduce sediment reaching streams are management of critical source areas, stock access to water, and riparian vegetation. These topics are linked to the provision of vegetated riparian margins, as I will discuss next in my evidence.

- 7.4 Management of critical source areas will largely be achieved through FEPs (which is the topic of Hearing Stream 3), and through the permitted activity rules, which I discuss earlier in this evidence. I address management of cultivation and stock access to water in the later sections of this evidence.
- 7.5 While vegetated riparian margins are not *required* by PC1 they are a valuable method of preventing or mitigating diffuse discharges to water which could form part of an FEP. Vegetated riparian buffers can also be either facilitated or discouraged by setback and fencing requirements set out in the plan. For these reasons I first discuss the importance of vegetated riparian buffers and provisions which support or encourage them, and then how they can be facilitated through the rules framework when discussing cultivation and stock access below.
- 7.6 Vegetated riparian margins**
- 7.7 Vegetated riparian margins are not required by PC1.
- 7.8 Fish and Game's submission sought that policy recognise and promote the benefits of progressively increasing riparian buffering of waterbodies¹⁷. Fish and Game also supported the Director General's submission to provide for at least 10 metre vegetated buffers from waterbodies¹⁸.
- 7.9 Dr Daniel sets out in his evidence the close links between good riparian vegetation and ecosystem health.
- 7.10 The s42A report does not discuss the benefits of *fenced riparian vegetation* as an option to achieve the objectives of PC1. At paragraph 908 the report rejects the benefits of riparian vegetation as an *alternative* to fencing waterbodies to exclude stock, but the report accepts that riparian vegetation options were not modelled by the council¹⁹. The s42A report is also (in my opinion) unnecessarily negative about the benefits of riparian vegetation, focussing instead on short term uncertainty during the establishment phase.
- 7.11 The s42A report does discuss the benefit of appropriate riparian vegetation as mitigation for microbial contamination and improved filtering and shading of the waterbody (which I understand decreases temperature and temperature fluctuations)²⁰. However, the s42A report does not discuss riparian vegetation in any more detail. There is no discussion on the merits of requiring or encouraging fenced riparian vegetation in PC1. In my opinion

¹⁷ PC1-12569 and PC1-12693

¹⁸ FSPC1-441

¹⁹ S42A para 909

²⁰ S42A report para 862 and 863

this is a significant oversight, both because of the significant benefits of riparian vegetation and because of the links between other provisions and the eventual or potential provision of riparian vegetation. To explain, PC1 requires stock proof barriers alongside waterbodies and these barriers could facilitate the establishment of riparian vegetation. However if they are not in appropriate places, or far enough back from the waterbody, their location may cause problems such as reduction in erosion protection (as described by Dr Eivers and Dr Daniel in their evidence) and where erosion of the stream bank occurs, the response can be instream works to protect the fence line, which exacerbates damage to riparian and instream habitat (as described by Dr Daniel in his evidence). Installing riparian fences in the wrong place now could be a future *impediment* to vegetated riparian margins as landowners will be naturally reluctant to replace a fence recently installed if requirements for riparian vegetation change in the future.

- 7.12 While provision of riparian vegetation and cultivation and stock access provisions have the opportunity to work together to achieve water quality benefits, restrictions on stock access and cultivation are not a substitute for provisions requiring vegetated riparian margins. A farm could comply with stock access and cultivation requirements and still have no vegetated riparian margins – waterbodies could be grazed to their boundary by sheep or goats, leaving only short grass on the margins – and the property would still comply with the rules. Dr Eivers demonstrates in her evidence how stock can push under fences to graze to the waters edge. In order to gain the benefits of vegetated riparian margins these must be provided for specifically in the PC1.
- 7.13 I acknowledge that FEPs could provide for riparian vegetation as a method of mitigating contaminant loss. However, in my opinion riparian vegetation is so important for ecosystem health and such an effective mitigation option, it should be encouraged or required more specifically. This includes through policy, through compulsory minimum requirements in rules and through more specific consideration and implementation through FEPs.
- 7.14 Dr Eivers has provided evidence on the significant benefits of vegetated riparian margins in mitigating adverse environmental effects, even taking into account the cost of providing those riparian margins.
- 7.15 In my opinion Policy 1 and Policy 2 should include requirements to establish vegetated riparian margins in some areas and specific consideration of their use as a mitigation tool in other circumstances.

7.16 Recommendation

7.17 Add a clauses to Policy 1 to provide for riparian buffer and vegetation where appropriate:

ca. Where cattle, horses, deer or pigs are not excluded from waterbodies, ensure that access of stock to waterbodies does not cause adverse effects on the waterbody including conspicuous pugging and exacerbated erosion, and where a resource consent is required for the activity use consent conditions to require mitigation measures to address the damage to habitat and discharge of contaminants, such as the provision of additional vegetated riparian buffers; and

d. Providing riparian buffers (with appropriate riparian vegetation where necessary) adjacent to rivers, streams, drains, wetlands and lakes to reduce overland flow of contaminants and improve the habitat quality of rivers and streams; and

7.18 Add a clause to Policy 2 to specifically provide for riparian vegetation as a mitigation tool where stock are not excluded from waterbodies:

a2. Where stock exclusion from waterbodies is not carried out in accordance with Schedule C, the actions that will be undertaken on the land to minimise stock access to water (for example, low stocking rates adjacent to waterbodies, provision of alternative water supply and shade) and to mitigate the effect of stock access to water where it occurs (for example, riparian planting in other places).

7.19 Management of cultivation

7.20 The proposed provisions of PC1 managed cultivation through a restriction on cultivating within 5 metres of a waterbody and on slopes greater than 15° for permitted activity farming²¹, and through provisions in the FEP directing a minimum 5m setback between cultivated areas and water bodies²² for activities requiring an FEP.

7.21 Fish and Game's submission sought more stringent restrictions on sediment discharges including diffuse sediment discharges from farming²³ and also specifically sought more stringent cultivation setbacks based on erosion susceptibility²⁴. Fish and Game also supported the Director General's submission to provide for at least 10 metre vegetated buffers from waterbodies²⁵ (which would as a consequence also setback activities like cultivation).

7.22 The changes to the rules recommended in the s42A report retains the restriction on cultivating slopes greater than 15° for permitted activities but removes the 5 metre setback for cultivation on flatter land²⁶. Permitted activities do not require an FEP so there is no opportunity for the requirements of Schedule 1 of PC1 to have effect on these properties.

²¹ Conditions 4(c) and (e) of Rule 3.11.5.2

²² Schedule 1 (f)(ii)(d)

²³ PC1-11007

²⁴ PC1-11007

²⁵ FSPC1-441

²⁶ Through the recommended deletion of condition 4(c)(i).

- 7.23 If Dr Eivers' list of Grade A CSAs is adopted into Rule 3.11.5.2 as I have recommended, this issue will be addressed because cultivation is included in the list and properties using cultivation for cropping will require an FEP through the resource consent process. If that recommendation is not adopted in the hearing panel's decision, I recommend that the requirement to set back cultivation from a waterbody is re-instated in the permitted activity rules (the proposed rule and the new permitted activity rule recommended in the s42A report). Farms that are permitted activities do not require an FEP, so we cannot rely on a future FEP for those properties to specify minimum cultivation setbacks.
- 7.24 For properties where resource consent and an FEP is required, the s42A report recommends "strong guidance about setbacks" should be provided in Schedule 1 FEP requirements. I accept that site specific setbacks should be guided by an FEP, and that the contents of Schedule 1 will be the subject of future caucusing and hearings. However, I note at this time that compulsory minimums will be required and that 'strong guidance' is unlikely to be sufficient to address the potential adverse effects sediment runoff resulting from cultivation.
- 7.25 Policies 1 and 2 should also include clear directive guidance about cultivation setbacks to guide decisions on resource consents. Unless there is clear guidance decisions will be made on a case by case basis and this may lead to inadequate setbacks and inconsistencies in the setbacks applied between different properties even if they have similar land use and type. This guidance should be consistent with the content of the FEP. As the content of the FEP is not clear at this time, I have not recommended specific wording for this provision at this time. I will return to that topic in Hearing Stream 3.

7.26 Stock exclusion from waterbodies

- 7.27 Fish and Game supported the rules in PC1 that required stock exclusion from waterbodies in accordance with Schedule C. Fish and Game sought amendments to include constructed barriers²⁷, and sought amendments to definitions to clarify the definition of livestock crossing structure to make it clear it could not be used as a loophole to allow stock access to water bodies²⁸.
- 7.28 Fish and Game supported the submission of the Director-General on Schedule C²⁹ to include intermittent waterbodies in the list of waterbodies from which stock must be excluded, and to require fencing setbacks of 10 metres for permanent rivers, lakes and outstanding waterbodies, and 5 metres for intermittent rivers and wetlands.

²⁷ PC1-1102

²⁸ PC1-11017

²⁹ FSPC1-441

- 7.29 Restricting stock access to water is a key method for reducing direct inputs of faecal matter to water, and will aid in improving water quality for contact recreation. Excluding stock from waterbodies prevents stock exacerbating stream bank erosion and destroying riparian vegetation and instream habitat and is a key method for reducing sediment and phosphorus in waterbodies.
- 7.30 As noted earlier, restricting stock access to water will not be effective at reducing the overland flow of faecal matter into waterbodies. In order to reduce overland flow of contaminants, riparian margins with appropriate vegetation are required.
- 7.31 Dr Eivers sets out in her evidence the importance of small and intermittent waterbodies as key vectors for contaminated runoff to permanent waterbodies. Based on this evidence I support the s42A report recommendation to include intermittently flowing waterbodies to Schedule C and require stock be excluded from them.
- 7.32 I support the s42A report recommendation to specify the minimum setbacks for fences in Schedule C. The s42A report recommends those setbacks change based on the slope of the surrounding land. Based on the evidence of Dr Eivers, the setbacks of 1 to 3 metres for most waterbodies recommended in the s42A report are too narrow to provide an effective riparian buffer, or for the majority of the benefits of vegetated riparian margins (that may result from fencing riparian margins) to accrue. A minimum setback of 5 metres is required to account for the effects of flooding and erosion and stock grazing under fences so that adequate buffers are provided.
- 7.33 If livestock access is permitted in some areas (for example hill country areas, or for occasional stock crossing as suggested as an option for Schedule C in the s42A report) or if exemptions are sought through a resource consent, there needs, in my opinion, to be an effects based condition to limit the extent of that access so that it is not causing significant adverse effects. A performance condition restricting visible pugging or erosion of the bed or banks of the waterbody is practical. Similar conditions are used in other regional plans (for example the Canterbury Land and Water Plan, and the Proposed Natural Resources Plan for the Greater Wellington Region). I recommend that a similar performance condition be included in Schedule C, and reference should be included in Policy 1.
- 7.34 Schedule C restricts access to the bed of a waterbody unless they are using a livestock crossing structure. Fish and Game sought that the definition of 'livestock crossing structure' be amended so that it did not allow stock to pass through water³⁰. The submission identifies that concrete platforms across the bed of the stream, such as fords,

³⁰ PC1-11017

would allow stock to walk through the flow of the stream, and as such adverse effects would not be avoided.

7.35 I agree that the definition of 'livestock crossing structure' in the plan is open to interpretation that may allow stock access to water. I do not agree that the recommendation in the s42A report resolves this issue. There may be a question as to whether stock on a concrete platform constructed on top of the bed are actually on the bed of the river, or are above it as the concrete platform provides some kind of 'insulation' above that bed. This kind of interpretation loophole can be avoided by making it clear stock must be above the bed and not be able to access the water, or to be more specific to specifically limit the crossing to a bridge or culvert.

7.36 Recommendation

7.37 **Amend the definition of Livestock crossing structure:** means a lawfully established structure installed to allow that enables¹⁶⁰ livestock to cross a water body such that the livestock do not enter or have access to the bed of the water body or any water (flowing or still) within the water body.

7.38 **Add a clause to Policy 1 relating to address adverse effects from stock access to waterbodies:**

ca. Where cattle, horses, deer or pigs are not excluded from waterbodies, ensure that access of stock to waterbodies does not cause adverse effects on the waterbody including conspicuous pugging and exacerbated erosion, and where a resource consent is required for the activity use consent conditions to require mitigation measures to address the damage to habitat and discharge of contaminants, such as the provision of additional vegetated riparian buffers; and

7.39 **Add provisions to Schedule C addressing adverse effects from stock access to waterbodies:**

Where cattle, horses, deer or pigs are not excluded from waterbodies, the access of stock to waterbodies must not cause conspicuous pugging and exacerbated erosion on bed or the banks of the waterbody.

8 Policy 1

8.1 The recommended change in focus of Policy 1 to reduction of catchment wide diffuse discharges is an improvement. However, this ought to be linked to the overall objective of the plan. That is, to reduce diffuse discharges to achieve the short, medium and long term water quality attributes states in Table 3.11.1.

8.2 Clause (a) presumably is the policy that leads to permitted activity rules for low intensity farming. I recommend making this clear in the policy. If it is not clear it may be used as policy support to grant resource consents for land use change, on the basis that it has a 'low level of contaminant discharge' for the particular type of activity.

8.3 For similar reasons, I do not support the s42A report recommendation to remove the words 'provided those discharges do not increase'. Removing this wording leaves the door open

to granting consents for activities that increase current discharges, but that otherwise use good farming practice.

- 8.4 The term 'low level' of contaminant discharges in clause (a) is ambiguous and should be linked to the phrase used in the rules, which is 'low intensity'.
- 8.5 I recommend including specified timeframes for farmers with a Nitrogen Reference Point (NRP) greater than the 50th and 75th percentile to achieve the required reductions in nitrogen in clause (b1). This should be linked to the timeframes in the plan for achieving the water quality goals in the objectives and Table 3.11.1.
- 8.6 Recommended clause (b2) appears to contradict recommended clause (a1). Clause (a1) requires GFP or better and clause (b2) appears to provide for exceptions to that. I am not aware of any reason why GFP should be adopted as a minimum standard on any farm. I recommend this clause be deleted.
- 8.7 Clauses (b3) and (b4) replace Policy 6 which dealt with applications to change land use to more intensive land uses. However, in my opinion combining it into Policy 1 adds confusion. Because it's not clear in the recommended provisions that the requirement for clear and enduring reductions before consent will be granted is related to changes in land use, the policy now reads as if all farms are required to meet this criteria. This would mean that a farm already operating at best practice which cannot practicably reduce its discharges further will fail to meet the policy and could be declined. I do not think this is the intention. I recommend the clauses either be left as a separate Policy 6, or are amended to make it clear they apply to changes in land use.
- 8.8 Whether the clauses are included in Policy 1 or separated into Policy 6, the policy needs to be more clear and less open-ended by removing the word 'generally'. Exceptions are provided for Māori land under Policy 16 but I can think of no other circumstances when a consent for increased discharges of contaminants should be granted. I recommend removing the word 'generally'. I also recommend removing the double up created by recommended clause (b4) providing the same but opposite direction.
- 8.9 Fish and Game's submission sought increased emphasis on vegetated riparian margins and increased setbacks to reduce sediment discharges. This is discussed in more details in relation to the specific requirements around stock access, cultivation and riparian management earlier in this evidence. The policies should reflect this direction, and I recommend additional clauses to the policies to achieve that.

8.10 Recommendation

8.11 Changes to Policy 1 and 2 are shown in Appendix 1.

9 Rules

9.1 In addition to the big picture issues discussed earlier in this evidence, I recommend some amendments to the rules as recommended by the s42A report to ensure they are clear and effective.

9.2 Rule 3.11.5.1 for small and low intensity farms, does not include restrictions on the conversion of land to higher intensity land uses, as the other rules in PC1 do. It is not necessary to include restrictions on conversions to commercial vegetable production or dairy farming as these activities are already restricted by the conditions of the rule. However, there is no restriction on the conversion of woody vegetation to farming activities. Farming activities, even small or low intensity ones have higher discharges of nitrogen, phosphorus, sediment and microbial pathogens than woody vegetation. Removing woody vegetation and converting to agriculture will more than likely result in an increase in contaminant discharges. It would be inconsistent with the policy framework to allow this as a permitted activity, and so I recommend an additional condition be added to Rule 3.11.5.1 to address this.

9.3 Recommendation

9.4 Amend Rule 3.11.5.1 to include a condition:

[D. There have been less than a cumulative net total of 4.1 hectares of change in the use of land from that which was occurring at 22 October 2016 within a property or enterprise from woody vegetation to farming activities.](#)

9.5 Activity Status for default rule 3.11.5.6

9.6 The default rule for farming activities that do not meet the conditions of the other rules (other than commercial vegetable production which is the subject of a separate hearing) in PC1 is a restricted discretionary activity and recommended in the s42A report to be a discretionary activity.

9.7 Fish and Game's submission sought this default rule be a non-complying activity.

9.8 The default rule in PC1 captures all farming activities that do not prepare an FEP in accordance with the plan. As PC1 relies so heavily on the FEP to set appropriate standards for farming activities, including compliance with the NRP and requirement to

use GFP, an activity that does not comply with the FEP requirements could potentially be an activity that is completely inconsistent with the objectives and policies of the plan.

9.9 In my opinion the plan should send a clear signal, through activity status that this type of activity is not appropriate.

9.10 I recommend a catch all rule for farming activities that do not have an appropriate FEP to be non-complying activities. Farming activities that do not meet other conditions of the preceding rules (such as not having all streams fenced) can remain a discretionary activity as recommended in the s42A report.

9.11 Changes in land use

9.12 PC1 provided for changes in land use of more than 4.1 hectares to be a non-complying activity. The s42A report recommends changes that alter this wording to refer instead to not complying with conditions relating to changes in land use in the preceding rules. In my opinion there is an inadvertent gap in the rules when presented in this way. The conditions about land use change in the preceding rules are backward looking, as they refer to changes in land use that have already occurred. This is useful as the rules will not have effect for some years, and they need to exclude changes in land use that have already occurred.

9.13 However, if a farmer is proposing to change land use in the future, it is not obvious which rule that future change in land use would be captured by. Potentially it is not covered by the rules as recommended at all, and would fall to be an innominate discretionary activity. This would be an inappropriate outcome, as the plans objectives and policies seek to limit changes in land management that would increase discharge of contaminants. In my opinion the plan should continue to send a strong message through activity status that increases in contaminant loss through intensification of land use is inappropriate except in the specific circumstances set out in the policy.

9.14 Recommendation

9.15 Reinstate provision addressing future conversions of land use in Rule 3.11.5.7:

Rule 3.11.5.7 - Non-Complying Activity Rule – Land Use Change

The use of land for farming and the associated diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens onto or into land in circumstances which may result in those contaminants entering water that does not meet [condition (5b) of Rule 3.11.5.3 or] condition (7) of Rule 3.11.5.4 is a non-complying activity.

Notwithstanding any other rule in this Plan, any of the following changes in the use of land from that which was occurring at 22 October 2016 within a property or enterprise located in the

Waikato and Waipa catchments, where prior to 1 July 2026 the change exceeds a total of 4.1 hectares:

1. Woody vegetation to farming activities; or
2. Any livestock grazing other than dairy farming to dairy farming; or
3. Arable cropping to dairy farming; or
4. Any land use to commercial vegetable production except as provided for under standard and term g. of Rule 3.11.5.5

is a non-complying activity (requiring resource consent) until 1 July 2026.

Notification:

~~Consent applications will be considered without notification, and without the need to obtain written approval of affected persons, subject to the Council being satisfied that the loss of contaminants from the proposed land use will be lower than that from the existing land use.]~~

Helen Marr

3 May 2019

Appendix 1 Track Change Plan Provisions

Proposed Waikato Regional Plan Change 1 – Waikato and Waipa River Catchments

Wording from PC1 shown in black text.

Changes from s42A report adopted in this version shown in black underline and ~~strike through~~

Changes recommended in Evidence of Helen Marr shown in blue text, underline and ~~strike through~~.

i. Policies/Ngā Kaupapa Here

Policy 1: Manage diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens/Te Kaupapa Here 1: Te whakahaere i ngā rukenga roha o te hauota, o te pūtūtae-whetū, o te waiparapara me te tukumate ora poto

~~Reduce~~ ~~Manage and require reductions in~~ catchment-wide and sub-catchment-wide diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens, by:

~~a1. Requiring all farming activities to operate at Good Farming Practice, or better; and~~

~~a2. Establishing, where possible, a Nitrogen Reference Point for all properties or enterprises; and~~

- a. Enabling through permitted activity rules, activities with a low level of risk of contaminant discharge to water bodies provided those discharges do not increase and and adverse effects, including cumulative effects, are avoided, remedied or mitigated; and
- b. Requiring, through the resource consent process, **farming activities** with moderate to high levels of contaminant discharge to water bodies to reduce their discharges proportionate to the amount of the 2016 discharge (those discharging more are expected to make greater reductions) and proportionate to the water quality improvements required in the sub-catchment; and
- b1. Calculating the 75th percentile and 50th percentile nitrogen leaching values and requiring farmers with a Nitrogen Reference Point greater than the 75th percentile to reduce nitrogen loss to below the 75th percentile within 3 years of consent being granted and farmers with a Nitrogen Reference Point between the 50th and 75th percentile to demonstrate real and enduring reductions of nitrogen leaching within 3 years of the consent being granted, with resource consents specifying an amount of reduction or changes to practices required to take place; and
- c. Progressively excluding cattle, horses, deer and pigs from rivers, streams, **drains**, wetlands and lakes; ~~and~~
- ca. Where cattle, horses, deer or pigs are not excluded from waterbodies, ensure that access of stock to waterbodies does not cause adverse effects on the waterbody including conspicuous pugging and exacerbated erosion, and where a resource consent is required for the activity use consent conditions to require mitigation measures to address the damage to habitat and discharge of contaminants, such as the provision of additional vegetated riparian buffers; and
- d. Providing riparian buffers (with appropriate riparian vegetation where necessary) adjacent to rivers, streams, drains, wetlands and lakes to reduce overland flow of contaminants and improve the habitat quality of rivers and streams; and
- e. Allocating diffuse discharges to land based on science defined limits and targets, and progressively phasing out the over allocation of contaminant discharges over time.

Policy 2: Tailored approach to reducing diffuse discharges from farming activities/Te Kaupapa Here 2: He huarahi ka āta whakahāngaihia hei whakaiti i ngā rukenga roha i ngā mahinga pāmu

Reduce ~~Manage and require reductions in catchment-wide and sub-catchment-wide~~ diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens from farming activities on properties ~~and enterprises, through Farm Environment Plans that:~~

- a1. Set out clear, specific and timeframed minimum standards for actions that reduce discharges of contaminants, including the use of Good or Best Farming Practice where this is appropriate; and
- a. ~~Take~~ Taking a tailored, risk based approach to define ~~mitigation management~~ actions on the land that will reduce ~~or mitigate~~ diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens, ~~with the mitigation actions to be specified in a Farm Environment Plan either associated with a resource consent, or in specific requirements established by participation in a Certified Industry Scheme; and~~
- a2. Where stock exclusion from waterbodies is not carried out in accordance with Schedule C, the actions that will be undertaken on the land to minimise stock access to water (for example, low stocking rates adjacent to waterbodies, provision of alternative water supply and shade) and to mitigate the effect of stock access to water where it occurs (for example, riparian planting in other places).
- b. ~~Undergo~~ Requiring the same level of rigour in developing, monitoring and auditing of ~~mitigation actions on the land that is set out in a Farm Environment Plan, whether the consent holder is a member of a Certified Sector Scheme or not it is established with a resource consent or through Certified Industry Schemes; and~~
- b2. Are flexible and able to be updated so that continuous improvement, new technologies and mitigation practices can be adopted, such that diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens further reduce over time.
- e. ~~Establishing a Nitrogen Reference Point for the property or enterprise; and~~
- d. ~~Requiring the degree of reduction in diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens to be proportionate to the amount of current discharge (those discharging more are expected to make greater reductions), and proportionate to the scale of water quality improvement required in the sub-catchment; and~~
- e. Requiring stock exclusion or mitigation measures where stock exclusion is not achieved, to be completed within 3 years following the dates by which a **Farm Environment Plan** must be provided to the Council, or in any case no later than 1 July 2026.

Policy 4: Future discharge reductions-Enabling activities with lower discharges to continue or to be established while signalling further change may be required in future/Te Kaupapa Here 4: Te tuku kia haere tonu, kia whakatūria rānei ngā tūmahi he iti iho ngā rukenga, me te tohu ake ākuanei pea me panoni anō hei ngā tau e heke mai ana

Manage ~~sub-catchment wide~~ diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens, and enable existing and new ~~low discharging activities to continue provided that cumulatively the achievement of Objective 3 is not compromised. Activities and uses currently defined as low dischargers may in the future need to~~ To recognise that future regional plan changes or regional plans are likely to require all farming activities make further reductions in the take mitigation actions that will reduce diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens in order for Objective 1 to be met.

Policy 5: Staged approach/Te Kaupapa Here 5: He huarahi wāwāhi

To recognise that:

- a. All farmers, businesses and communities will need to contribute to achieving the water quality attribute states in Table 3.11-1; and
- b. Changes in practices and activities need to start immediately; and
- c. The rate of change will need to be staged over the coming decades to minimise social, economic and cultural disruption and enable innovation and new practices to develop;
- c1 There is a need to make changes before 80 years if objectives are to be achieved within 80 years because of lag between actions on land and improvements in water quality; and
- d. Responding to the reasonably foreseeable effects of climate change will mean that different regulatory and non-regulatory responses may be needed in future.

Recognise that achieving the water quality attribute[^] targets[^] set out in Table 11-1 will need to be staged over 80 years, to minimise social disruption and ~~allow for enable~~ innovation and new practices to develop, while making a start on reducing discharges of nitrogen, phosphorus, sediment and microbial pathogens, and preparing for further reductions that will be required in subsequent regional plans.

Policy 6: Restricting land use change/Te Kaupapa Here 6: Te here i te panonitanga ā-whakamahinga whenua

Except as provided for in Policy 16, land use change consent applications that demonstrate are likely to result in an increase in the **diffuse discharge** of nitrogen, phosphorus, sediment or **microbial pathogens** will generally not be granted.

Land use change consent applications that demonstrate clear and enduring and meaningful decreases in existing **diffuse discharges** of nitrogen, phosphorus, sediment or **microbial pathogens** will generally may be granted if those decreases are proportionate to the amount of the 2016 discharge (those discharging more are expected to make greater reductions) and proportionate to the water quality improvements required in the sub-catchment.

Policy 8: Prioritised implementation/Te Kaupapa Here 8: Te raupapa o te whakatinanatanga

Prioritise the management of land and water resources by implementing Policies 2, 3 and 9, and in accordance with the prioritisation of areas set out in Table 3.11-2. Priority areas include:

- a. **Sub-catchments** where there is a greater gap between the water quality targets[^] in Objective 1 (Table 3.11-1) and current water quality; and
- b. Lakes Freshwater Management Units[^]; and
- c. Whangamarino Wetland.

In addition to the priority **sub-catchments** listed in Table 3.11-2, the **75th percentile nitrogen leaching value** dischargers will also be prioritised for **Farm Environment Plans**.

~~**Policy 10: Provide for point source discharges of regional significance/Te Kaupapa Here 10: Te whakatau i ngā rukenga i ngā pū tuwha e noho tāpua ana ki te rohe**~~

~~When deciding resource consent applications for **point source discharges** of nitrogen, phosphorus, sediment and **microbial pathogens** to water or onto or into land, provide for the:~~

- ~~a. Continued operation of regionally significant infrastructure; and~~
- ~~b. Continued operation of regionally significant industry.~~

Policy 11: Application of Best Practicable Option and mitigation or offset of effects to point source discharges/Te Kaupapa Here 11: Te whakahāngai i te Kōwhiringa ka Tino Taea me ngā mahi whakangāwari pānga; te karo rānei i ngā pānga ki ngā rukenga i ngā pū tuwha

Require any person undertaking a point source discharge of nitrogen, phosphorus, sediment or microbial pathogens to water or onto or into land in the Waikato and Waipa River catchments to as a minimum, adopt the Best Practicable Option* to avoid or mitigate the adverse effects of the discharge, ~~at the time a resource consent application is decided.~~

~~Where it is not practicable to avoid or mitigate all any adverse effects; cannot be reasonably avoided, they should be mitigated, and where they cannot be reasonably mitigated, an offset measure may should be proposed provided for in an alternative location or locations to the point source discharge, for the purpose of ensuring positive effects on the environment to lessen any residual adverse effects of the discharge(s) that will or may result from allowing the activity provided that the:~~

- ~~f. Primary discharge does not result in any significant or toxic adverse effect at the point source discharge location; and~~

- g. Offset measure is for the same contaminant; and
- h. Offset measure occurs preferably within the same sub-catchment in which the primary discharge occurs and if this is not practicable, then a sub-catchment within the same Freshwater Management Unit^A or a Freshwater Management Unit^A located upstream, and
- i. Offset measure remains in place for the duration of the consent and is secured by consent condition or another legally binding mechanism so that it offsets the residual adverse effect for at least the duration of the effect, and
- j. Offset measure provides for a net decrease in the amount of the relevant contaminant in the receiving environment.

Offset/s: For the purpose of Chapter 3.11 means for a specific contaminant/s a measurable conservation action, demonstrated through robust and appropriate methodology, that reduces the intensity, extent and/or duration of residual adverse effects on water quality and achieves conservation outcomes above and beyond that which would have been achieved if the offset had not taken place

Policy 12: ~~Additional considerations for~~ Considering point source discharges in relation to water quality targets/Te Kaupapa Here 12: He take anō hei whakaaro ake mō ngā rukenga i ngā pū tuwha e pā ana ki ngā whāinga ā-kounga wai

When deciding a resource consent application, ~~c~~Consider the contribution made by a point source discharge to the nitrogen, phosphorus, sediment and microbial pathogen catchment loads and the impact of that contribution on the ~~likely~~ achievement of the short term water quality attribute states^A targets^A in Table 3.11-1Objective 3 or the progression towards the 80-year water quality attribute states^A targets^A in Objective 1Table 3.11-1, taking into account:

- aa. The benefits of the continued operation of regionally significant infrastructure and regionally significant industry;
and
- a. The relative proportion of nitrogen, phosphorus, sediment or microbial pathogens that the particular point source discharge contributes to the catchment load; and
- b. Past ~~technology~~ upgrades undertaken to ~~model, monitor and~~ reduce the discharge of nitrogen, phosphorus, sediment or microbial pathogens within the previous consent term; and
- c. ~~The ability~~Whether it is appropriate to stage future mitigation actions to allow investment costs to be spread over time and to meet the water quality attribute states^A targets^A specified above; ~~and~~
- d. ~~The diminishing return on investment in treatment plant upgrades in respect of any resultant reduction in nitrogen, phosphorus, sediment or microbial pathogens when treatment plant processes are already achieving a high level of contaminant reduction through the application of the Best Practicable Option*.~~

Policy 13: Point sources consent duration/Te Kaupapa Here 13: Te roa o te tukanga tono whakaaetanga mō te pū tuwha

When determining an appropriate duration for any point source discharge consent granted consider the following matters:

- b. The appropriateness of a longer consent duration ~~A consent term exceeding 25 years;~~ where the applicant demonstrates that the discharge is consistent with achieving the water quality attribute states set out in Table 3.11-1 ~~the approaches set out in Policies 11 and 12 will be met;~~ and
- ab the risk of a longer consent duration where the discharge is not consistent with achieving the water quality attribute states set out in Table 3.11-1 or where future regional plan changes or regional plans are likely to provide a comprehensive approach to allocation of both point and nonpoint source discharges
- b. The magnitude and significance of the investment made or proposed to be made in contaminant reduction measures and any resultant improvements in the receiving water quality; and
- c. The need to provide appropriate certainty of investment where contaminant reduction measures are proposed (including investment in treatment plant upgrades or land based application technology).

ii. Rules/Ngā Ture

3.11.5.1A Interim Permitted Activity Rule – Farming

Rule 3.11.5.1A – Interim Permitted Activity Rule – Farming

The use of land for farming, and the associated diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens onto or into land in circumstances which may result in those contaminants entering water which is not a permitted activity under Rule 3.11.5.2, is a permitted activity until:

1. The later of 1 September 2021 or 6 months after this Plan becomes operative, for properties in Priority 1 sub-catchments listed in Table 3.11-2, and all properties with a Nitrogen Reference Point greater than the 75th percentile nitrogen leaching value; and
2. The later of 1 March 2025 or 1 year after this Plan becomes operative for properties in Priority 2 sub-catchments listed in Table 3.11-2; and
3. 1 January 2026 for properties in Priority 3 sub-catchments listed in Table 3.11-2;
subject to the following conditions:
 1. The property is registered with the Council in conformance with Schedule A; and
 2. Cattle, horses, deer and pigs are excluded from water bodies in conformance with Schedule C; and
 3. No commercial vegetable production occurs; and
 4. A Nitrogen Reference Point is produced for the property in conformance with Schedule B; and
 5. Full electronic access to Overseer or any other software or system that models or records diffuse contaminant losses for the farming land use authorised by this rule is granted to the Council; and
6. There has been less than a cumulative net total of 4.1 hectares of change in the use of land from that which was occurring at 22 October 2016 within a property or enterprise from:
 1. Woody vegetation to farming activities; or
 2. Any farming activity other than dairy farming to dairy farming; or
 3. Any farming activity to Commercial Vegetable Production

Permitted Activity Rule – Small and Low Intensity farming activities/Te Ture mō ngā Mahi e Whakaaetia ana – Ngā mahi iti, ngā mahi pāiti hoki i runga pāmu

Rule 3.11.5.2 - Permitted Activity Rule – ~~Other~~ Low intensity farming activities

The use of land for farming activities (excluding commercial vegetable production) and the associated diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens onto or into land in circumstances which may result in those contaminants entering water where the property area is greater than 4.1 hectares, and has more than 6 stock units per hectare or is used for arable cropping, is a permitted activity subject to the following conditions:

- A. For all properties:
1. The property is registered with the Waikato Regional Council in conformance with Schedule A; and
 2. Cattle, horses, deer and pigs are excluded from water bodies in conformance with Schedule C ~~and Conditions 3(e) and 4(e) of this Rule;~~ and
 - 2A. The farming activities do not form part of an enterprise; and
 - 2B. No commercial vegetable production occurs; and
 - 2C. No dairy farming or grazing of dairy cattle occurs; and
 - 2D. There are no Grade A CSAs on the property; and
 - 2E. There are no Grade B CSAs that are within 10 metres of a waterbody on the property.

....

- D. There have been less than a cumulative net total of 4.1 hectares of change in the use of land from that which was occurring at 22 October 2016 within a property or enterprise from woody vegetation to farming activities.

Other parts of the rule as recommended in s42A report.

3.11.5.6A Discretionary Activity Rule

Rule 3.11.5.6A - Discretionary Activity Rule

The use of land for farming and the associated diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens onto or into land in circumstances which may result in those contaminants entering water that does not meet one or more of [conditions (1) to (4) ~~(5a)~~ of Rule 3.11.5.3 or conditions (1) to (3) or (6) of Rule 3.11.5.4 is a Discretionary activity.

3.11.5.6AB Non-Complying Activity Rule – Farming Activities that do not have a Farm Environment Plan prepared in accordance with Schedule 1

Rule 3.11.5.6AB – Non-Complying Activity Rule

The use of land for farming and the associated diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens onto or into land in circumstances which may result in those contaminants entering water that does not meet condition 5 of Rule 3.11.5.3 or condition 4 Rule 3.11.5.4 is a Non-Complying activity.

3.11.5.7 Non-Complying Activity Rule —~~Land Use Change~~/Te Ture mō ngā mahi kāore e whai i ngā ture – Te Panonitanga ā-Whakamahinga Whenua

Rule 3.11.5.7 - Non-Complying Activity Rule – Land Use Change

The use of land for farming and the associated diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens onto or into land in circumstances which may result in those contaminants entering water that does not meet [condition (5b) of Rule 3.11.5.3 or] condition (7) of Rule 3.11.5.4 is a non-complying activity.

Notwithstanding any other rule in this Plan, any of the following changes in the use of land from that which was occurring at 22 October 2016 within a property or enterprise located in the Waikato and Waipa catchments, where prior to 1 July 2026 the change exceeds a total of 4.1 hectares:

5. Woody vegetation to farming activities; or
6. Any livestock grazing other than dairy farming to dairy farming; or
7. Arable cropping to dairy farming; or
8. Any land use to commercial vegetable production except as provided for under standard and term g. of Rule 3.11.5.5 is a non-complying activity (requiring resource consent) until 1 July 2026.

Notification:

~~Consent applications will be considered without notification, and without the need to obtain written approval of affected persons, subject to the Council being satisfied that the loss of contaminants from the proposed land use will be lower than that from the existing land use.]~~

Delete 3.11.5.8 and 3.11.5.9 as proposed by the s42A report