Waikato Regional Council Policy Series 2019/09

Section 42A Report

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

Block 3

Parts C7-C9

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Waikato
REGIONAL COUNCIL
Te Kaunihera ā Rohe o Waikato

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1 Introduction

1. Following notification on 22 October 2016, 1023 submissions were received on Proposed Plan Change 1 (PC1). These submissions raise a range of issues and make many requests for changes to PC1. There were an additional 61 submissions received on Variation 1 to Plan Change 1 (Var1), bringing the total number of submissions to 1084.

2. This report is prepared under section 42A of the Resource Management Act 1991 (RMA), and is known as the "Section 42A Report". It is used by the Hearing Panel to assist them with the requests in the submissions and the implications of accepting or rejecting submission points. The analysis in it is the opinion of the Officers[1], and it is not binding on any party – the Hearing Panel will make recommendations, and the Council will make the ultimate decisions on changes to PC1 as a result of submissions. For the avoidance of doubt, while this report is not the "evidence" of an individual, the report has been prepared in a manner consistent with the Code of Conduct for Expert Witnesses.

3. The hearing process and reporting has been broken into three steps – broadly the overall outcomes, core of polices and rules, and more technical components. This third part of the reporting has been prepared before the second part has completed a hearing process or had a preliminary decision issued. Therefore, the recommendations are subject to update and adjustment, depending on the directions from earlier hearing blocks.

4. While many of these submissions have common themes, all of the provisions of PC1 are subject to one or more submissions. Due to the large number of submissions, submitters with common submission points have often been grouped together in the discussion of individual provisions. For example, there are over 1000 submission points on some topics, with dozens of variations of relief sought. This means that individual submitters are often not identified and the reporting on submitters is often generalised e.g. 'a large number of submissions were received on Policy….' and only a single submitter or submission point is shown. This has been done as a means of confirming that there is scope within the submissions to make the requested change, rather than identifying or prioritising particular submitters. A full list of the submissions that are addressed in each section of the report is attached as Appendix B.

5. There are further submissions on many submission points. Many of the further submissions are substantial, some are several hundred pages in length. The majority of further submissions are from original submitters (68 of 70 received). For most of the further submission points, the change being supported or opposed is also addressed in the submitter's original submission.

6. As a generalisation, several of the agriculture and horticulture submitters (such as Horticulture New Zealand (HortNZ), Beef + Lamb New Zealand Limited (Beef and Lamb) and Farmers 4 Positive Change (F4PC)) supported each other through further submissions, as well as garnering other further submitter support from the agriculture community. Further submissions in opposition to many points of these original submitters consistently came from The Royal Forest and Bird Protection Society of New Zealand (Forest and Bird) and the Waikato River Authority (WRA).

[1] Throughout this Report the term "Officers" is used to represent the team of authors of this report. The lead author, and person ultimately responsible for the opinions in this report is Matthew McCallum-Clark. Full details of the qualifications and experience of the team is included in Appendix A.

7. Overall, given the issues subject to further submissions are discussed in relation to the original submission point, only in exceptional cases are further submission points noted in the body of this report.

1.1 Report format

8. This Report is 'topic-based', in that it responds to the submissions grouped by topic, rather than by the order of the provisions in PC1. The broad structure of this report is as follows, recognising that Parts A and B were released on 14 January 2019, and Parts C1-C6 were released on 05 April 2019:

Part A – Introduction and context

- Introduction, structure and abbreviations
- Brief summary of PC1 and its development
- Var1 process
- Legal and statutory framework
- NPS-FM and its 2017 update, other NPSs and NESs, MfE work programmes
- Vision and Strategy for the Waikato River/Te Ture Whaimana o Te Awa o Waikato (Vision and Strategy), Joint Management Agreements
- Collaborative development process
- Waikato Freshwater Strategy
- Water quality and ecosystem health

Part B - Outcomes

B1. Overall direction and whole plan submissions
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C1. Diffuse discharge management

- Overseer
- Policies 1 and 2 and the overall rule framework
- Farm Environment Plans and Policy 2 (part)
- Reductions (75th percentile)
- Land use change
- Other relevant policies and definitions

C2. Cultivation, slope and setbacks
C3. Certified Industry Schemes
C4. Stock exclusion
C5. Māori Treaty Settlement Land
C6. Urban/point source discharges
C7. Commercial vegetable production
C8. Alternative approaches – including sub-catchment planning
C9. Farm Environment Plans
C10. Miscellaneous (forestry, wetlands and lakes, other miscellaneous, consequential changes)

9. Recommendations are made where appropriate, and these are either to retain provisions without amendment, or to add to or amend the provisions with the amendment shown by way of strikeout and underlining. In limited circumstances the Section 42A Reporting Officers (Officers) consider that an amendment may be appropriate, but consider it would be beneficial to hear further evidence before making a final recommendation, and this is made clear within the report. All recommended changes have a footnoted reference with a submission point and submitter name that provides the scope for the recommended change.

1.2 Take note for this section of the Report

10. This report needs to be read alongside the tracked changes version of the relevant parts of PC1, attached as Appendix C to this Report, as all the recommendations are recorded there.

11. The analysis and recommendations of this section of the report are conditional on the outcomes of the Blocks 1 and 2 hearing processes, and especially the expert witness caucusing and decisions on Table 3.11-1. The Officers, at the time of writing this report do not know the outcomes of the hearing on the overall direction and objectives or the main policies and rules. Therefore, the recommendations here are provisional, and subject to change in the final recommendations of the Officers, to be published at the end of the hearing process.

1.3 Abbreviations

12. Abbreviations used in the text of this Report are:

BMP	Best Management Practice
BPO	Best Practicable Option
CFEP	Certified Farm Environment Planner
CFNA	Certified Farm Nutrient Advisor
CSG	Collaborative Stakeholder Group
CVP	Commercial Vegetable Production
E.coli	Escherichia coli
FEP	Farm Environment Plan
FMU	Freshwater Management Unit
GFP	Good Farming Practice
GMP	Good Management Practice
NES	National Environmental Standard
NPS-FM	National Policy Statement for Freshwater Management
N	Nitrogen
NRP	Nitrogen Reference Point
Officers	Section 42A Reporting Officers (see Appendix A)
Overseer	OVERSEER® Nutrient budgets
P	Phosphorus
PC1	Proposed Plan Change 1
RMA	Resource Management Act 1991
WRPS	Waikato Regional Policy Statement

TN	Total Nitrogen
Var1	Variation 1 to Plan Change 1
Vision and Strategy	Vision and Strategy for the Waikato River/Te Ture Whaimana o Te Awa o Waikato
WRA	Waikato River Authority
WRC	Waikato Regional Council
WRP	Waikato Regional Plan

13. Abbreviations of submitter names used in the text of this Report are:

Ata Rangi	Ata Rangi 2015 Limited Partnership
Ballance	Ballance Agri-Nutrients Limited
Beef and Lamb	Beef + Lamb New Zealand Limited
DoC	Department of Conservation
F4PC	Farmers 4 Positive Change
FANZ	Fertiliser Association of New Zealand
Federated Farmers	Federated Farmers of New Zealand, Federated Farmers of New Zealand (Waikato Region) 1999 Incorporated, Federated Farmers of New Zealand – Rotorua Taupō Province Incorporated, Federated Farmers of New Zealand (Auckland Province) Incorporated
Fish and Game	Auckland/Waikato Fish and Game Council, Eastern Region Fish and Game Council
Fonterra	Fonterra Co-operative Group Limited
Forest and Bird	The Royal Forest and Bird Protection Society of New Zealand
Hamilton CC	Hamilton City Council
HFM	Hancock Forest Management (NZ) Limited
HortNZ	Horticulture New Zealand
Matamata-Piako DC	Matamata-Piako District Council
NZTA	NZ Transport Agency
Oji Ltd	Oji Fibre Solutions (NZ) Limited
Pamu Farms	Pamu Farms of New Zealand by Landcorp Farming Limited
PLUG	Primary Land Users Group
Rotorua Lakes DC	Rotorua Lakes District Council
South Waikato DC	South Waikato District Council
Tangata Whenua	Maniapoto Māori Trust Board, Maungatautari Marae, Ngaati Tamaoho Trust Te Taiao, Ngāti Haua Iwi Trust, Poohara Marae, Potini Whaanau, Raukawa Charitable Trust, Te Arawa River Iwi Trust, Te Awamaarahi Marae Trustees, Te Kauri Marae, Te Runanga o Ngāti Kea Ngāti Tuara Trust, Te Taniwha o Waikato, Te Whakakitenga o Waikato Incorporated (Waikato-Tainui), Tūrangawaewae Marae, Tūwharetoa Māori Trust Board, Waahi Whaanui Trust, Waikato and Waipā River Iwi
Waikato DC	Waikato District Council
Waitomo DC	Waitomo District Council
Watercare	Watercare Services Limited
WRA	Waikato River Authority
WRC	Waikato Regional Council

C1. Commercial Vegetable Production

C1.1. Introduction

14. This topic covers matters related to Commercial Vegetable Production (CVP). Proposed Plan Change 1 (PC1) has proposed a different approach to managing contaminant losses from land used for CVP to reflect the different land use practices that occur. There is significant overlap between matters raised on those provisions specifically relating to CVP and more general issues about the management approach taken in PC1. Where there is overlap, it is noted where there are similar concerns and whether the recommendations made on those matters earlier in this report are applied in a consistent manner or not.

C1.1.1. Context

15. CVP requires deep, free draining soils and a suitable climate. This combination of soils and climate are relatively limited in area across the Auckland and Waikato Region. In the Waikato, CVP is mostly located in the northern Pukekohe and Pukekawa areas. This area of production land is a significant food growing area in New Zealand, but is confined in area – significantly less than 1% of the Waikato River catchment is used for CVP. The pressure on the availability of land for CVP has increased as a result of areas of Pukekohe being used for urban development, with some CVP becoming more extensive in other parts of the region.

16. The range of crops grown is diverse, some crops can be grown continuously in the same ground while other crops must be rotated to avoid disease. This requirement for crop rotation results in some CVP growers leasing considerable proportions of the land they use for CVP.

17. While information is imperfect, there are thought to be up to 200 CVP growers in the region. Many of these are transitory, farmers that respond to market conditions by short-term growing of CVP crops, while in most areas the majority of the growing area and value of CVP production is undertaken by a small number of growers.

18. As a generalisation, most CVP is high in N losses and high in P and sediment losses, in the absence of adequate mitigations. Microbial contaminants (including *E. Coli*) are largely absent, other than with incidental grazing. While many submissions to the CVP rules seek additional flexibility for 'low emitters', in reality CVP is generally not a low-loss activity.

C1.1.2. Discussions with Submitters

19. Waikato Regional Council (WRC) staff have had a number of discussions with submitters specifically related to their PC1 submissions. This has included two meetings with HortNZ, which have included a number of individual growers, the PVGA and Balle Bros. These meetings have been helpful for exploring issues, clarifying submission points, learning more about the practical realities of CVP rotations and farming techniques, and testing potential solutions.

20. Several other meetings with PC1 submitters addressed CVP issues and rules as an aside to all general discussions.

21. Notes from these meetings have been made publicly available on the Council's website.

22. Key conclusions from the meetings are that:

- there is a need to better enable movement of CVP from site to site;
- there is clear room for increased uptake of good management practices;
- there are up to 200 growers in the region who are affected by these rules;
- overall CVP is a very small proportion of the land area and contaminant losses of the region as a whole, but could be up to 10% of some sub-catchments;
- OVERSEER® Nutrient budgets (Overseer) has issues modelling CVP losses that reduce confidence in the tool; and
- there is displacement of CVP from within the Auckland region, due to urban growth that leads to increased land area demand in the Waikato region.

C1.1.3. Conferencing for solutions

23. At the direction of the Hearing Panel, two sessions were held with submitters to seek agreed solutions to three key questions:

    a) How best to describe nutrient losses, given known issues with Overseer applicability to CVP?

    b) Should the proposed cap on total area of CVP be retained, and if not, what constraints/limits on new CVP should apply (if any)?

    c) How to provide for crop rotation/leasing land/moving CVP from site to site while ensuring no increase in losses of the four contaminants?

24. While there was partial agreement on some issues, for the most part, the sessions did not result in agreed responses to these questions.

C1.1.4. Overview of provisions

25. Under PC1 there a number of provisions that specifically relate to CVP. This is because the management approach applied for pastoral farming cannot be easily applied to CVP, due to the nature of the growing activities. The overarching approach of PC1 is for CVP growers to adopt Farm Environment Plans (FEP), undertake nutrient budgeting, farm at "good management practice" (GMP) or "best management practice" (MBP) and restrict further expansion of CVP growing areas to reduce overall discharges from CVP.

26. The objectives of PC1 aim for improvements in water quality while maintaining social, economic and cultural well-being and protecting and restoring tangata whenua values. In relation to CVP, these objectives are to be achieved through implementing a number of policies, but most specifically:

    Policy 3: Tailored approach to reducing diffuse discharges from commercial vegetable production systems/Te Kaupapa Here 3: He huarahi ka āta whakahāngaihia hei whakaiti i ngā rukenga roha i ngā pūnaha arumoni hei whakatupu hua wheua.

27. The above tailored approach to reducing diffuse discharges from CVP systems is to be achieved by:

    a. Providing flexibility to undertake crop rotations on changing land parcels while reducing average contaminant discharges over time;
    b. Establishing then capping the maximum land area utilised for CVP based on production data from 2006-2016;

c. *Establishing a nitrogen reference point for each property or enterprise;*
d. *Achieving a 10% reduction in the diffuse discharge of nitrogen and a tailored reduction in diffuse discharges of phosphorus, sediment and microbial pathogens through the implementation of Best or Good Management Practices;*
e. *Identifying and implementing mitigation measures within timeframes specified in either a Farm Environment Plan and associated resource consent or in specific requirements established in a Certified Industry Scheme;*
f. *Enable CVP enterprises that reduce nitrogen, phosphorus, sediment and microbial pathogens; and*
g. *The degree of reduction in diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens is proportionate to the amount of current discharge.*

28. Regional rules and non-statutory methods are proposed to implement the PC1 policies. Rules 3.11.5.5, 3.11.5.6, 3.11.5.7 apply to CVP.

29. Rule 3.11.5.5 permits the use of land for CVP and the associated diffuse discharge of nitrogen (N), phosphorus (P), sediment and microbial pathogens onto or into land until 1 January 2020. From this date, the use of land for existing CVP is a controlled activity provided the following standards and terms are met:

a. *The property is registered with the Waikato Regional Council in conformance with Schedule A;*
b. *A Nitrogen Reference Point is produced for the property or enterprise in conformance with Schedule B and provided to the Waikato Regional Council when the application is lodged;*
c. *Cattle, horses, deer and pigs are excluded from water bodies in conformance with Schedule C;*
d. *The land use is registered to a Certified Industry Scheme;*
e. *The areas of land and their locations broken down by sub-catchments, that were used for commercial vegetable production within the property or enterprise each year in the period 1 July 2006 to 30 June 2015, together with the maximum area of land use for commercial vegetable production within that period, shall be provided to the Council;*
f. *The total area of land for which consent is sought for commercial vegetable production must not exceed the maximum land area of the property or enterprise that was used for commercial vegetable production during the period 1 July 2006 to 30 June 2016;*
g. *Where new land is proposed to be used for commercial vegetable production, an equivalent area of land must be removed from commercial vegetable production in order to comply with standard and term f.*
h. *A Farm Environment Plan for the property or enterprise prepared in conformance with Schedule 1 and approved by a Certified Farm Environment Planner is provided to the Waikato Regional Council at the time the application is lodged.*

30. Where existing CVP land use cannot comply with the standards and terms of Rule 3.11.5.5, the use of land for CVP and the associated diffuse discharges is classified as a restricted discretionary activity under Rule 3.11.5.6. Any CVP that results in an increase of more than 4.1ha of the area of CVP is a non-complying activity under Rule 3.11.5.7.

31. In relation to CVP, implementation methods 3.11.4.2 Certified Industry Scheme/Te kaupapa ā-ahumahi kua whai tohu and 3.11.4.3 Farm Environment Plans/Ngā Mahere Taiao ā-Pāmu outline that WRC will develop the process for certifying and monitoring FEPs for CVP, and for certifying Certified Industry Schemes.

32. Schedule B - Nitrogen Reference Point/Te Āpitihanga B – Te tohu ā hauota (Schedule B) describes the methodology to calculate the nitrogen reference point (NRP). For CVP, Schedule B directs that the reference period to calculate the NRP is 1 July 2006 to 30 June 2016 and that it is the average annual N loss during this period.

33. Schedule 1 – Requirements for Farm Environment Plans/Te Āpitihanga 1: Ngā Herenga I ngā Mahere Taiao ā-Pāmu (Schedule 1) describes the provisions for preparing a FEP. For CVP, Schedule 1 specifies minimum standards for addressing different contaminant sources.

C1.2. Submissions

34. Over 225 submissions were received on Policy 3 and Rule 3.11.5.5. Not all submission points on these provisions relate to CVP so only those points that relate to CVP have been assessed.

35. A large number of submissions are lodged on CVP policies and rules that are generic in nature and oppose the core methods of PC1. These submissions are addressed more generally elsewhere in this report, and the recording of these submissions and the analysis is not repeated here. As an example of these kinds of submissions, A. Chick has sought:

    - *Remove Rule 3.11.5.5 provisions relating to the NRP*
    - *Remove provisions relating to the Overseer model*
    - *Amend to adopt a sub-catchment based approach in conjunction with a farm environment plan*
    - *Amend to remove the stock exclusion fencing requirement for slopes over 15 degrees*
    - *Amend to provide for a change to the stock exclusion threshold to 12 stock units per hectare*
    - *Amend for stock exclusion the definition of a waterway to align with the definition in the National Policy Statement for Freshwater Management (NPS-FM)*
    - *Amend to include stock exclusion fencing in farm environment plans and through catchment requirements*

36. Submissions were received in support of the provisions relating to CVP but many submissions were opposed and sought a number of different amendments. The submissions have been analysed in the following topics:

    - Use of Overseer for CVP;
    - 10% reduction in N loss for CVP;
    - NFP for CVP;
    - Maximum Area Cap for CVP;
    - Transferring N losses between properties; and
    - Miscellaneous/other matters which include the definition of CVP.

C1.3. Use of Overseer for Commercial Vegetable Production

C1.3.1. Introduction and Provisions

37. The use of Overseer as a tool to establish and then report N losses from land use is a key aspect of the approach to the management of N adopted in PC1. In relation to CVP, growers are required to determine a NRP for their property or enterprise. The NRP is based on their average annual N leaching loss for land use activities between 1 July 2006 and 30 June 2016 using Overseer, or any other model approved by the Chief Executive of WRC. Policy 3(c) specifically outlines that N discharges will be managed and reduced by establishing a NRP for each property or enterprise and Rule 3.11.5.5 requires the determination of the NRP at the time the resource consent application is lodged.

38. Of the 112 submissions on Policy 3, nine specifically mention the use of Overseer in establishing the NRP and of the 170 submissions on Rule 3.11.5.5, 42 submissions relate to the use of Overseer. Submitters included representative organisations such as HortNZ and PVGA as well as many individual submitters. The submissions received are predominantly in opposition and seek:

- Deletion of the use of Overseer and establishment of a NRP; and
- The substitution of Overseer for an alternative tool or method and extending timeframes to allow for alternatives to be developed.

39. While there are many that mention Overseer or seek its deletion, the majority of submission points are aimed at PC1 as a whole, and do not appear particularly targeted at Rule 3.11.5.5.

C1.3.2. Deletion of the use of Overseer and establishment of nitrogen reference point

40. This issue is raised in a very large number of submissions on PC1 as a whole. These submissions are discussed in the Overseer section of this report. Only submissions relevant to CVP are discussed here.

C1.3.2.1. Submissions

41. A number of submissions raise concerns regarding the accuracy of Overseer in relation to CVP, citing a lack of calibration and specificity for the nature of how land is used for CVP. In particular, submitters including Jivan Produce Ltd, Balle Bros Group and Save Karapiro Inc, have raised concerns about the margin of error with Overseer results and the inability to model a number of mitigations. Submitters identify that the short growth cycle of some CVP crops, crop rotations, and the timing, type and application methods for some CVP fertilisers lead to particular difficulties with Overseer modelling of CVP activities. Concerns are also raised, as with a number of other sectors, that updates to the Overseer model lead to revised loss estimates and can 'shift the goal posts'.

C1.3.2.2. Analysis

42. Overseer is a model that estimates nutrient flows in farming systems. The model relies on data inputs for climate, soils, topography and information on the way in which land is managed such as irrigation, cropping types, fertiliser applied, and effluent applied. While Overseer has been applied to CVP systems, there are some difficulties in being able to accurately enter data that reflects the short cropping cycles and fertiliser applications involved.

43. Overseer Limited, the Foundation for Arable Research and the Vegetable Research and Innovation Board sponsored a project to test Overseer N loss estimates from cropping systems.[2] The investigation aimed to identify discrepancies between Overseer and the model Agricultural Production Systems Simulator (APSIM). The study found that OVESEER estimated greater drainage and less irrigation than APSIM and concluded that there was a need to evaluate the consistency of the model across locations and to refine the water and N balance in Overseer. Broader testing was also recommended to improve the confidence in the model's ability to predict leaching in cropping systems.

44. The section 32 report acknowledges that confidence in Overseer for CVP is lower because of the nature of crop rotation, but that research is underway to improve the accuracy for horticulture and compare Overseer with other models such as APSIM.

45. While there are well recognised difficulties in the use of Overseer for cropping systems, further research is underway to improve the accuracy of the results. Officers note that challenges are faced with the release of new versions of Overseer which change the N loss outputs.

46. Overseer is a fundamental component of PC1 which is suitable for pastoral uses. As is discussed more fully in the Overseer section, removing the use of Overseer as a tool to measure N losses completely from PC1 is not desirable as it is beneficial in aiding landowners to understand losses and implement measures to reduce them.

47. For CVP, Officers understand there have been discussions between WRC and HortNZ about the use of an Overseer proxy tool[3], similar to the Environment Canterbury "N-Check" tool. However, Officers understand WRC implementation staff are not supportive of developing a similar tool for the Waikato.

48. Officers agree that there are difficulties in using Overseer to model leaching from CVP, particularly for crops where leaching is not well researched, where different fertiliser regimes are used for different crops, where crop types are often changed, and where crops can be farmed on new areas of land for short periods.

C1.3.3. Use of alternative tools

C1.3.3.1. Submissions

49. Many submitters support Policy 3 and Rule 3.11.5.5, including the establishment of the NRP, but seek the use of an alternative model or tool. A number of alternative approaches have been suggested.

50. R Boom submits that given the inaccuracies with Overseer, the Land Utilisation Capability Indicator (LUCI) can be much more accurate and is preferred when setting catchment limits. Eru Nikorima Trust and Glenshee Trust submit that "while Overseer remains the best tool to measure and manage nutrient losses, it is imperative that the tool is used within its bound", particularly pertaining to the margin of error in the results.

51. HortNZ submits that APSIM and SPASMO should be specifically referenced in the PC1 rules and definitions, as alternative models to Overseer for the calculation of NRPs.

[2] Khaembah, E., and Brown, H., HortNZ, OVERSEER Limited and The Foundation of Arable Research (2016), *OVESEER crop module testing-end of project report*.

[3] In this report there is reference in several places to this concept of a 'proxy tool'. The officers understand such a tool to be a spreadsheet or web-site-based tool that could identify nitrogen leaching rates for different types of vegetable growing, under particular soil and climate conditions, using a range of standardised farming systems, to simplify the Overseer inputs.

52. HortNZ also seeks the active provision for and development of an alternative method or model to determine losses from CVP. HortNZ contends that practical application of Overseer to CVP systems has demonstrated that it is unsuitable for modelling N losses from complex cropping systems. HortNZ specifically notes that Overseer is currently not capable of modelling the frequency of cropping rotations, cropping and cultivation options and overlapping cropping sequences. HortNZ have explained that an Overseer 'proxy' system should be used, with standardised and representative CVP systems, similar to the "N-Check" system used in Canterbury. Such a system, that is applicable to Waikato CVP, soils and climate, does not yet exist.

53. J Craig and T Dunlop also seek alternatives to Overseer and submit that timeframes need to be extended to allow alternative programs to be developed that have less margin of error and cater for different scenarios.

C1.3.3.2. Analysis

54. While Overseer is the most widely used tool to estimate N losses from land use activities in New Zealand, alternatives do exist. The provisions of PC1 currently allow an alternative model to be used if approved by the Chief Executive of WRC. The section 32 report outlines that while alternatives should be considered, there are benefits in using one modelling system as this enables comparisons between land use activities and the aggregation of sub-catchment nutrient loads. If multiple models are used, these comparisons would be difficult, if not impossible, and sub-catchment loads may not be able to be determined.

55. Although other models can be approved under Schedule B, submitters have sought that alternatives are included in PC1 alongside Overseer, including MENUs, LUCI, APSIM and SPASMO.

56. MENU's were developed by WRC and are designed to help farmers improve nutrient management and reduce impacts on water quality. Three MENUs have been developed for dairy farms, drystock farms and cropping land that list farm practices that can reduce contaminant discharges. The MENUs are very helpful for informing on-farm practices but do not provide a mechanism to estimate nutrient losses. It is therefore the Officers' view that this is not a suitable alternative.

57. LUCI assesses the capability of a 'landscape' to provide ecosystem services and enables a comparison of current land uses to its potential capability. LUCI can be used to identify areas where change might be beneficial or the maintenance of the status quo is desirable. LUCI can predict contaminant losses including erosion and sediment loss. Ravensdown is currently working on a bespoke option of LUCI to enable farmers and catchment groups to identify critical source areas and how they may be managed. MitiGator is a similar product/service offered by Ballance.

58. APSIM is a simulator of agricultural systems capable of simulating a diverse range of farming systems that has been developed in Australia. Officers understand that some testing has been undertaken in New Zealand, which indicates, for the soils it has been tested on, that the model is suitable for the intended purpose and uses a daily time step which is better suited to CVP short cropping rotations. A comparison between APSIM and Overseer has shown differences in model outputs for the same farming systems. During the CVP conferencing sessions, APSIM was suggested by HortNZ as the most appropriate, currently available tool to use.

59. The Soil Plant Atmosphere System Model (SPASMO) allows for the modelling of losses from the soil profile on a single paddock basis. This allows the model to be quite specific to a particular

area if the necessary climate and soil information is known. The specificity can provide advantages over more simplistic models, but costs can be higher due to the information required.

60. With respect to CVP, officers consider that there is currently insufficient information presented to determine whether the alternative models suggested by the submitters are a suitable substitute for, and provide some equivalency to, Overseer. APSIM would appear to be the most useful, but issues remain. For example, Officers understand it does not provide equivalent outputs to Overseer or other tools, such that determining offsets or loss levels to attribute to land entering or leaving a CVP operation may require a range of assumptions and interpretation. Technical support for APSIM and the limited number of qualified operators are also unresolved issues. Overall, Officers consider models such as APSIM be addressed through the Overseer alternative process, where such issues can be considered and addressed more comprehensively than in a Plan framework.

61. The ability to approve an alternative model will enable the development, approval and use of a Waikato-specific, Overseer proxy model, as has been suggested by HortNZ. As discussed above, HortNZ have requested various changes to methods, and have indicated that such a model will be developed, but is not yet available. Officers therefore are unable to recommend this tool for a rule framework.

C1.4. 10% Reduction in Nitrogen Loss for Commercial Vegetable Production

C1.4.1. Introduction and Provisions

62. Using Overseer, PC1 requires landowners to develop a NRP for each property or enterprise. For CVP, Policy 3(d) requires a 10% reduction in the diffuse discharge of N and a tailored reduction in the diffuse discharge of P, sediment and microbial pathogens across the sector to be achieved through the implementation of BMP or GMP.

C1.4.2. Submissions

63. Approximately eleven submissions were received on Policy 3 and Rule 3.11.5.5 that relate to the proposed reductions required by the CVP sector to reduce their contaminant discharges. Concerns raised were specifically in relation to the fairness of the proposed 10% reduction in N discharges, clarification as to when reductions were necessary and the benefits that would result from the required reductions.

64. Balle Bros Group has sought the deletion of Policy 3(d), in part as they do not support the use of Overseer to derive the NRP or measure N losses for CVP due to inaccuracies in the modelling.

65. Federated Farmers has also sought amendments to Policy 3(d) to delete the 10% reduction in N discharges. Federated Farmers state that it is not possible to provide for the well-being of New Zealand people without allowing CVP to expand to meet the needs of the growing population. In addition, Federated Farmers state that the land used for CVP is small and likely to remain so and CVP is already subject to industry management practices designed to reduce environmental impacts.

66. HortNZ seeks an amendment to Policy 3(d). to remove the requirement for a 10% reduction in N discharges, instead suggesting there should be:

> *A tailored reduction of no more than 5% through the implementation of Best or Good Management Practices in the diffuse discharge of nitrogen, phosphorus, and sediment is achieved across the sector through the while recognising:*
> - *The absent or low risk of discharges of microbial pathogens from commercial vegetable production;*
> - *The need to preserve aspects of commercial vegetable production required to maintain domestic supply of vegetables;*
> - *The pressure on and scarcity of land suitable for commercial vegetable production. This pressure has recently increased as a result of greenfields expansion onto versatile land in the Auckland region.*

67. HortNZ commissioned a technical report from Jacobs. This report discusses the water quality modelling prepared by Doole (2016)[4] that informed PC1 and compares the costs between CVP growers and dairy farmers of required N reductions and the relative benefits in terms of improvements to water quality. HortNZ outline that the 10% reduction proposed in Policy 3(d) is based on economic information from the report by Agribusiness Group (2014)[5] where a 10% reduction in the N load was considered feasible, but would have a substantial economic impact on CVP growers due to lower yields.

68. HortNZ also states CVP contributes less than 3% of the TN load to the Waikato River while the Dairy sector contributes 62%. A 10% reduction in the N load from CVP would result in less than a 0.3% reduction in the TN load. The management of dairy farms to the 75th percentile N loss is estimated to require a 4-6% reduction in N leaching from farms on a per property basis and the TN load reduction is equivalent to the TN load from CVP. HortNZ considers that the reductions required per farm by dairy farmers are unlikely to affect their profits.

69. PLUG supports Policy 3 but seeks amendments to delete part d. This is on the basis that PLUG does not support the use of Overseer or a NRP due to the inaccuracy of model outputs.

70. Charion Investment Trust, FANZ, Fletcher Trust, Fonterra, Ravensdown and Wairakei Pastoral Ltd all seek clarification in Policy 3 to clarify when the 10% reduction in N discharges needs to be achieved and that it applies relative to the NRP across all growers.

C1.4.3. Analysis

71. As discussed earlier in the Block 2 s42A Report, the use of Overseer is an important aspect in the proposed management of N discharges under PC1. The ability to record and account for N losses is critical to whether a 10% reduction for CVP is a viable goal – if it can't be measured, there would appear to be little point in a numeric target. Certainly, a 10% improvement in overall water quality for a sub-catchment could be measured, but that would not necessarily be related to reductions by CVP, as in almost all sub-catchments CVP is only a small proportion of land uses.

72. In response to Federated Farmers' concerns regarding the 10% reduction required in N losses across the sector where there is likely to be the demand to increase land used for CVP, the

[4] Doole, G. J. 2016. *Simulation of the proposed policy mix for the Healthy Rivers Wai Ora process.* Department of Economics, Waikato Management School, University of Waikato.

[5] Agribusiness Group, 2015. *Nutrient performance and financial analysis of Lower Waikato horticulture growers.* Agribusiness Group, Christchurch.

Officers consider that this is a significant issue for the catchment and the sector, and is discussed further below under the following section.

73. It is important that all landowners within the Waikato Catchment play their part in achieving the water quality attributes in Table 3.11-1, as this gives effect to the Vision and Strategy. This means that CVP growers need to ensure that they operate at GMP or BMP to reduce their contribution of contaminants. However, specifying a 10% reduction raises a number of issues. These include how it is to be apportioned across individuals, what the timeframe is to achieve it, what the start-point is (and whether that is known with any precision) and whether it is realistic in the face of pressure for additional CVP in the Waikato Region.

74. Overall, Officers hesitantly prefer the removal of the numeric 10% decrease in Policy 3, in favour of strengthened reliance on faster uptake of GMP for all CVP. When read in conjunction with Policy 3(g), for which substantial adjustment is not recommended, it is evident that individual reductions required per property or enterprise will differ between higher and lower dischargers, those further from good practice will need to do more than those who are already closer. This, in combination with other recommendations, will ensure fairness within and between sectors, but remove a potentially distracting element of the policy.

C1.5. Nitrogen Reference Point for Commercial Vegetable Production

C1.5.1. Introduction and Provisions

75. As is indicated earlier, wider issues with the use of the NRP within PC1 have been addressed earlier in the Block 2 s42A report.

76. The methodology for the calculation of the NRP for CVP is set out in Schedule B, and is intertwined with the calculation methodology for other farming activities. The key difference for CVP is that the NRP is calculated by using an average, over 10 years of data. This differs from the methodology used for other farming activities, which is the highest year out of two specified financial years. It is understood that this greater period was due to the more highly variable nature of CVP production – both in terms of year-to-year variation in the same location, and shifting locations for CVP.

77. The most relevant provisions from Schedule B are:

> *The Nitrogen Reference Point shall be the highest annual nitrogen leaching loss that occurred during a single year (being 12 consecutive months) within the reference period specified in clause f), except for commercial vegetable production in which case the Nitrogen Reference Point shall be the average annual nitrogen leaching loss during the reference period.*
>
> *…*
>
> *The reference period is the two financial years covering 2014/2015 and 2015/2016, except for commercial vegetable production in which case the reference period is 1 July 2006 to 30 June 2016.*

C1.5.2. Submissions

78. Approximately eight submitters have provided comments in relation to the methodology for determining the NRP for CVP. These submissions have been received on either Policy 3, Rule 3.11.5.5 or Schedule B.

79. Balle Bros Group does not support the use of the NRP as a regulatory tool and has sought that Schedule B is deleted from PC1 entirely. In their submission on Var1, Balle Bros Group has requested that the date by which the NRP is required is extended to March 2022 to align with the consenting timeframes. This provides the CVP industry as much time as possible to provide correct and accurate data.

80. J Craig and T Dunlop have raised concerns that it is currently unclear how the NRP for CVP will be determined where there has been mixed land use on the same block.

81. Hort NZ seeks that the NRP for CVP is developed in accordance with Schedule B or the use of a proxy farm system. As stated above, Hort NZ has been involved in developing proxy measures for vegetable cropping based on researched rotation data in Canterbury which has allowed for the development of a tool as an alternative to Overseer. Hort NZ supports the inclusion of an alternative tool based on property level or enterprise level proxies for a NRP. Hort NZ seeks that Schedule B is rewritten to provide for an alternative method for the arable and CVP sectors.

82. Ravensdown submits in support of Policy 3 but notes that it may be difficult to obtain and verify data from the previous 10 years for CVP systems and that it will be difficult to achieve consistency over this time period resulting in the N loss number being unreliable. Ravensdown has also requested an amendment to Schedule B to state the reference period for all land uses is the average loss over the 'baseline period' of 2012/13 to 2015/16.

83. Pukerimu Farms Limited and Strang and Strang Limited have submitted on the ten-year averaging period for CVP and state that this will result in a fragmented allocation of nutrients across the Waikato if the "right" to N losses sits with the land rather than a lessee.

84. WRC has submitted on Schedule B (f) to seek an amendment to specify that where land is used for CVP during only part of the 2006-2016 period, it is only when land is used for CVP that is included when calculating the NRP.

C1.5.3. Analysis

85. Submitters raise a number of practical issues with the calculation of the NRP for CVP. Much of this centres around the highly variable nature of CVP, such that drawing together 10 years of data is likely to be problematic, and that the use of averaging is also likely to lead to highly variable outcomes between growers. Several submitters have highlighted that they do not hold 10 years of data that would fulfil the detail and quality requirements for Overseer inputs.

86. There is also a practical difficulty in the use of leased land, where if only a single paddock is used for CVP for a single year, the property could become subject to the 10 year averaging framework with the inherent costs and complexity for the landowner.

87. The particular difficulties for CVP growers, in terms of the predominance of leased land and movement from site to site, with respect to the property based NRP and land use rules are discussed in the following section. Some of the issues discussed are interrelated with the calculation of the NRP.

88. In order for the CVP NRP to be functional, it is clear that a shorter dataset is required, along with the ability to recognise greater year by year fluctuation between sites and within growing

operations, such that an average is not always representative of current growing activity. As noted earlier, using Overseer for CVP creates difficulties. There appears to be justification for removal of the Overseer-based NRP requirement altogether for CVP, if only from an Overseer workability point of view. However, Officers are conscious that the CVP industry has not been able to suggest a generally accepted and available alternative. If a requirement to establish an NRP is removed for CVP, there still needs to be confidence that this would not compromise the achievement of the Vision and Strategy, the NPS-FM and the objectives of PC1. Officers consider that the required confidence has not been evident in the CVP discussions to date. Officers are hopeful that evidence will establish viable alternatives, so that an unwieldy or compromised solution does not need to be presented by Officers in the final recommendations.

C1.6. Maximum Area Cap for CVP

C1.6.1. Introduction and Provisions

89. The direction, in terms of a maximum area in the region utilised for CVP comes from Policy 3:

> *b. Establishing then capping the maximum land area utilised for CVP based on production data from 2006-2016;*

90. This is then referenced in several of the standards and terms of controlled activity Rule 3.11.5.5 (for existing CVP) and through the non-complying activity rule:

> ***Rule 3.11.5.7 - Non-Complying Activity Rule – Land Use Change***
> *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 Waipā catchments, where prior to 1 July 2026 the change exceeds a total of 4.1 hectares:*
> *1. …*
> *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.*

91. Standard and term (g) of Rule 3.11.5.5 is intended to enable the use of a 'new' area of land for CVP, provided an equivalent area ceases being used for CVP.

C1.6.2. Submissions

92. There are approximately 22 submissions on this part of Rule 3.11.5.5 and many more on the relevant part of non-complying activity Rule 3.11.5.7. These are approximate numbers, particularly in relation to the non-complying activity rule, as the majority of the submitters oppose the rule in its entirety or the non-complying activity status.

93. Several submitters, such as B Chapman, seek that the rule framework be retained.

94. Other submitters are more fundamentally opposed to the inclusion of CVP in the non-complying activity rule (such as Balle Bros and PVGA), or seek the addition of a new restricted discretionary activity rule that enables the use of land for new and additional CVP where the applicant demonstrate that there will be a decrease in the discharges of N, P, sediment or microbial pathogens as a result of the land use change. Hort NZ and others have sought 'credit' for

reduction in one contaminant (such as microbial contaminants) that may be used to justify increases in other contaminants, such as N. FANZ considers land area to be a crude measure, in that it takes no account of loss rates and is not effects based.

95. G Anderson and B Das and Sons identify that as the population increases there will be increasing pressure on supply and the country must be able to supply adequate vegetables to the population. In addition, the submitters consider there is a need to develop new vegetable land in the Waikato as growers are forced out of Auckland.

C1.6.3. Analysis

96. This issue is difficult to resolve in the face of competing interests – there are strong public benefits to accessible fresh fruit and vegetables. However, contaminant losses from this sector are often high. Further, the requirement to 'surrender' an equivalent area of CVP when any new CVP is established is a significant constraint on any new entrants into the sector.

97. Officers consider that this issue is interrelated with a general ability to manage CVP losses, and ensure the sector is "doing its part" towards reducing overall contaminant discharges in line with the Vision and Strategy. From the discussion above, it would appear that it is difficult to measure losses from CVP with Overseer, and therefore it is unlikely that a reliable NRP for CVP can be established. While this issue has been discussed at length with industry groups and through the CVP forums, there does not appear to be any simple or agreed answer to this issue. Within the CVP sector there are a range of different views, and many appear to consider that the current level of contaminant management is adequate. However, from the anecdotal descriptions of activities and management techniques, Officers consider that awareness and application of GFP's by growers would appear to be inconsistently implemented.

98. Officers are of the view that if there is no identifiable way to manage overall losses from the sector, along with no maximum area cap for CVP, then there is a risk that in some sub-catchments the degree of improvement required will not be achieved, and overall the outcomes of PC1 may be at risk. Officers would very much welcome further information or evidence from the CVP sector as to how this may be achieved without an area cap, whilst giving the community and other sectors confidence that the CVP sector is "doing its part".

99. In order to better enable the expansion of existing CVP operations or new entrants, greater policy support is recommended for new areas of CVP land, provided that there are offsets, within the sub-catchment of the losses of all four contaminants that are equal to or greater than the increase from the CVP production. While acknowledging difficulties with measurement of the four contaminants, this could be through enhanced mitigation techniques, such as a wetland, or the reduction in losses from existing high loss activities. For example, a CVP production could be established on part of an existing dairy farm, with the remainder being converted to a low loss activity, such as dryland sheep finishing, such that overall losses of all four contaminants would be no greater than before the CVP increase occurred.

C1.7. Transferring nitrogen losses between properties

C1.7.1. Introduction and Provisions

100. The PC1 provisions are intended to enable the movement of CVP land uses to new areas of land, through standard and term (f) and (g) to Rule 3.11.5.5:

f. The total area of land for which consent is sought for commercial vegetable production must not exceed the maximum land area of the property or enterprise that was used for commercial vegetable production during the period 1 July 2006 to 30 June 2016; and

g. Where new land is proposed to be used for commercial vegetable production, an equivalent area of land must be removed from commercial vegetable production in order to comply with standard and term f; and

C1.7.2. Submissions

101. Approximately 24 submissions were received on Rule 3.11.5.5 relevant to the issue of transferring N losses between properties.

102. HortNZ in their submission on Var1 and PC1 has requested that catchment collectives are established in PC1. HortNZ has described how a catchment collective might work which can be summarised as follows:

- A sub-catchment load is established based on the science provided by the Technical Working Group. The sub-catchment loads enables the management of contaminant discharges at a sub-catchment scale rather than at an individual property scale.
- A minimum of 20% of land area would need to join a catchment collective to utilise this approach. The sub-catchment load could then be divided proportionately.
- The catchment collective would need to create a legal entity and those working under the collective would need to enter into a contract under civil law outlining the rights and responsibilities of each party.
- Funding for the catchment collective will be required as the legal entity will need to establish tools and methods to track progress and develop an integrated catchment management plan. Funding would be required through civil contracts between landowners and the legal entity.
- A decision support tool will be required. This tool is to be used to predict the effectiveness of mitigation to achieve the 10 year sub-catchment load. At a minimum the decision support tool must be able to assess the outcome across all four contaminants, provide evidence that support mitigation outlined in the integrated catchment management plan and be scientifically robust.
- The legal entity will use the decision support tool and integrated catchment management plan to apply for a resource consent covering the land specified in civil contracts between the legal entity and participating parties.
- The legal entity would be required to monitor and report on progress under the integrated catchment management plan and Council could take enforcement action against the legal entity or participating parties that have breached conditions of the contract.

103. WRC submit that where a property is part of an enterprise it is not clear who owns the NRP and that it cannot attach to both a landowner and a lessee. The NRP is not a transferable discharge right and is associated with the use of specific land. There is no mechanisms in PC1 to allow N transfer, consequently the concept of allowing an enterprise to hold a NRP raises practicality issues. Also, there is nothing within the standard or term (g) that requires a piece of land that is removed from CVP to be within the same sub-catchment. WDC have sought that Rule 3.11.5.5 is amended to remove the ability for an enterprise to hold a NRP and restrict the NRP to exist only with a particular piece of land.

104. Waipā DC and other territorial authorities identify that there is a need to ensure the rule framework accommodates changes in property boundaries, and lease arrangements, and for enterprises working over multiple properties. The territorial authorities also seek provision for off-setting mitigation.

105. Wai Shing Ltd seeks provisions that enable crop rotation across new and existing land parcels

106. Balle Bros Group seeks clarification as to how the rule will relate to the rotational nature of horticulture. Balle Bros Group states that if the NRP is tied to land, there will be implications for leased land and if it is a transferable right, retired land must be considered part of this right. Balle Bros Group has sought the deletion of standard and terms (f) and (g) of Rule 3.11.5.5.

107. Jivan Produce Ltd, PLUG and PVGA have submitted seeking certainty how CVP can move around land to enable crop rotation and also question how the NRP will be applied, whether it will sit with the CVP grower or if it is tied to the land itself. Jivan Produce Ltd oppose Rule 3.11.5.5 as a land use consent and seek that it is a discharge consent. PLUG state that a land use consent framework will not allow a CVP to move from land parcels which will affect crop rotation capability and undermine best practice. PLUG support a sub-catchment approach which will mean the capping of land area will not be required and provide CVP growers flexibility to move rotations across sub-catchments.

108. Pukerimu Farms Ltd, Strang and Strang Limited and Waiawa Farms submit that it is currently unclear whether the right to CVP is assigned to a land owner or lessee for leased land. The submitters seek that Rule 3.11.5.5 is replaced with a Best Practice Management Approach.

C1.7.3. Analysis

109. As the Officers understand it, the ability to move from site to site is a key aspect of CVP. While it is clearly an option to require management of individual properties and movement between properties via a resource consent process, advice from the CVP sector is that this is inefficient with respect to the number of movements, insufficiently responsive with respect to the fast decision-making that needs to be made and does not overcome the present issue of land use consent-based approvals.

110. One of the key issues with the present rule framework is that it is based around per-property land use consents with associated discharges. Land use consents essentially attached to the land that approval is granted for, and are unable to be transferred from site to site. While the existing CVP Rule 3.11.5.5 purports to enable land to move in and out of a grower's system, this could be inconsistent with the RMA, including being inconsistent with underlying resource consents that may affect the land on which new CVP is established.

111. Through the discussions at the CVP forum, the concept of managing CVP primarily through a discharge consent framework was advanced. In the Officers' opinion, while this may enable the movement of CVP between properties through the inclusion of a specific rule that enables transfers, it is not without problems, such as quantifying discharges or ensuring the effects are the same in any location. Another option is a land-use consent that applies to a specified maximum area of land anywhere within a sub-catchment. Officers note that as PC1 is based around sub-catchments and Freshwater Management Units (FMU) as being divisions of the wider catchment, there is a preference for limiting movement of CVP within sub-catchments, but would welcome further discussion on this topic. Any regime will still require either formal transfer of consents or at least notification and provision of information to the Council when CVP is shifted, and this still may not be as flexible as CVP growers would like, but Officers consider it appropriately balances the need for the WRC to know where and how much CVP is occurring,

and for those discharges to be appropriately managed. Officers have residual concerns about how the local effects of a sub-catchment-wide consent might be assessed, particularly cumulatively if there are many of these consents in a sub-catchment.

C1.8. Definition of commercial vegetable production

C1.8.1. Introduction and Provisions

112. The definition of CVP is:

> ***Commercial vegetable production:*** *means the following vegetables grown in New Zealand for commercial purposes:*
>
> *i. artichokes, Asian vegetables, beans, beetroot, boxthorn, broccoflower, broccoli, broccolini, Brussels sprouts, burdock, cabbage, capsicums, carrots, cauliflower, celeriac, celery, chilli peppers, chokos, courgettes, cucumbers, eggplant, Florence fennel, garland chrysanthemum, garlic, gherkins, herbs, Indian vegetables, kohlrabi, kumara, leeks, lettuces, marrows, melons, okra, parsnips, peas, puha, pumpkin, purslane, radishes, rakkyo, rhubarb, salad leaves, salsify, scallopini, scorzonera, shallots, silverbeet, spinach, spring onions, sprouted beans and seeds, squash, swedes, sweetcorn, taro, turnips, ulluco, watercress, witloof, yakon, yams, zucchinis, potatoes, tomatoes, asparagus, onions; and*
>
> *ii. the hybrids of the vegetables listed in subparagraph i.*

C1.8.2. Submissions

113. Gourmet Mokai Ltd requests the exclusion of vegetables grown in glass houses or otherwise under cover, as the contaminant losses can be better managed.

114. Several submitters, including A Rickman and HortNZ request the removal of asparagus, as it is a perennial plant, which tends not to involve cultivation and other practices that lead to comparable contaminant losses. A Rickman suggests that it is more akin to pip fruit and kiwifruit production.

115. J Allen suggests a minimum area threshold, to avoid capturing very small growers, and suggests a minimum of 1000 m2 of land in production at any one time.

116. Forest and Bird seeks changes so that the definition is inclusive, so the listed vegetables are examples, not a definitive list.

117. Waiawa Farms and others highlight what they consider to be an arbitrary delineation between different forms of cropping that have very similar effects, such that some crops are grown for feed purposes, but would be treated differently.

C1.8.3. Analysis

118. The submissions on the definition of CVP are relatively diverse. Officers agree that the definition should exclude produce grown in glasshouses, as soil, if used at all, is generally highly modified and these systems are not subject to typical rainfall and nutrient losses.

119. While officers agree that there is potential for arbitrary delineation between different cropping types and for very small growers to be captured by the definition, there is a requirement that the produce be grown for commercial purposes, the outcomes sought by the submitters may be

at least partially accommodated. In the Officer's experience, when listing specific activities in a definition and applying a specific set of rules, it is difficult to avoid some unintended capture of activities.

120. The Forest and Bird submission highlights that the list of vegetables and produce is very specific, and if another vegetable or similar crop was introduced or grown over the life of the Plan, it would not be addressed by the CVP rules. Officers are supportive of a definition with an inclusive list, but consider that it would require the beginning section of the definition to be adjusted to describe what the list includes. The submitter has not made a particular suggestion for wording. An example, such as "vegetables grown for primarily human consumption" would not capture all of the varieties in the list. The submitter is welcome to bring a solution to this issue to the hearing. In the interim, no change is recommended, but for the purposes of discussion, a descriptive definition could be:

> *Commercial vegetable production means the growing of any plant for commercial purposes, where the seeds, roots, tubers, bulbs, stems, leaves, or flower parts are used as food for human consumption, but does not include asparagus, vegetables grown in glass houses (or otherwise under cover), fruit grown on trees or perennial vines or arable crops.*

121. Several submitters have suggested the deletion of asparagus from the definition. As the Officers understand it, asparagus:

1. is a non-rotational vegetable, which means it is not subject to the same degree of cultivation as other rotational vegetables. Cultivation is a primary contributor to N leaching from vegetables, as a result of mineralization of organic matter;
2. tends to be grown on flat reasonably free draining land meaning the risk of soil loss (and therefore P and sediment loss) is lower;
3. is not grazed, so there is no faecal pathogen source associated with growing asparagus.

122. Despite some research, Officers have been unable to find information about typical N leaching rates from asparagus crops. If this is able to be provided, and is more akin to a dry-stock farming operation, it may appear reasonable to delete asparagus from the definition and CVP management regime. That said, it would then fall to the general farming rules, and some form of resource consent is still likely to be required.

123. In assessing these submissions, Officers have noted the difficulty in reading the list of crops, as there are some items not in alphabetical order. If the list is to be retained, officers recommend revising to alphabetical order, which makes no difference to content, but makes the list more accessible.

Recommendation on submissions:

1. Accept all those submissions that supported the plan provisions which are recommended to remain unchanged or largely unchanged

2. Reject those submissions who sought the deletion of the Plan Provisions which are recommended to remain unchanged or largely unchanged

3. Accept, or accept to the extent, those submissions that sought the changes recommended as set out in the revised plan provisions

4. Reject, or reject to the extent, those submissions that do not support the changes recommended as set out in the revised plan provisions

C2. Sub-catchment Planning

C2.1. Introduction

124. The provisions relevant to this topic in PC1 are Policy 9 – sub-catchment mitigation planning, coordination and funding and Implementation Method 3.11.4.5 sub-catchment scale planning. Many submissions received on this topic seek specific sub-catchment management approaches that are different to what is currently proposed in PC1. Therefore, the submissions section is split into topics discussing options for sub-catchment planning approaches, including:

    - Managing contaminants relevant to each sub-catchment
    - Collective mitigations by sub-catchment groups
    - Catchment groups: managing to catchment load limits
    - Catchment groups: managing to catchment load limits via a future Plan Change
    - Adaptive management
    - Group action plans

125. There are also two relevant definitions, for sub-catchment and edge-of-field, that are assessed at the end of this section.

C2.2. Background

126. In PC1 there are 74 sub-catchments. The basis for dividing the catchment into 74 sub-catchments was for modelling purposes by aggregating River Environments Classification drainage units between selected sites located along the drainage network[6]. Each sub-catchment represents the contributing area draining to its corresponding site. The scenario modelling analysed the 74 sub-catchments which were further disaggregated into respective farms for dairy, dairy support, drystock, and horticulture sectors according to the characteristic of land and land management within these zones[7]. The monitoring network, with a site for each sub-catchment also enables a water quality 'picture' of each river FMU, rather than relying on a single monitoring site at the bottom of each FMU.

127. The boundary and scale of the sub-catchments were largely delineated on the basis of water quality monitoring sites within the monitoring network. The sub-catchment planning approach in PC1 can be divided up into two separate approaches, the first being regulatory and the second non-regulatory:

    - Prioritised implementation
    - Sub-catchment planning and co-ordination of actions

128. Prioritisation of which sub-catchments would be required to start implementing FEPs first is based on the size of the gap between the current state of water quality and desired future state, in terms of water quality attributes for N, P, E. coli and clarity. As is explained in the Block 1 s42A

[6] Semadeni-Davies A et al 2015a. Modelling E.coli in the Waikato and Waipa River Catchments Development of a catchment-scale microbial model WRC Report No HR.TLG.2015-2016.2.6 Doc 3428411

[7] Evaluation of scenarios for water-quality improvement in the Waikato and Waipa River catchments

Report, the sub-catchments are ranked based on the size of the gap between existing contaminant discharges and that required to achieve the desired water quality. This means resources required to develop FEP's will be prioritised practically, and that there may be opportunity to carry out further works to understand the sub-catchment dynamics that result in impacts on water quality.

129. For Priority 1 sub-catchments and properties with an NRP greater than the 75th percentile N leaching value, a FEP must be complete by 1 March 2022 and stock exclusion must be complete by 1 March 2025. For Priority 2 sub-catchments, a FEP must be complete by 1 March 2025 and stock exclusion must be complete by 1 July 2026. For Priority 3 sub-catchments, a FEP and stock exclusion requirements must be complete by 1 July 2026.

130. The PC1 sub-catchment planning approach and coordination of actions are used to target areas or actions where the greatest improvement can be achieved. These are non-regulatory actions, where WRC acts as a supporter, co-ordinator and information sharer. Landowners can seek assistance, take up funding and take action. Key elements within this approach include support and funding of large-scale sub-catchment mitigation works, voluntary programmes for agencies and urban communities to become involved in sub-catchment planning, planning considerations to inform special projects, lake catchment plans and working with territorial authorities to implement WRPS principles guiding future urban development.

C2.3. Submissions

131. PC1 is inherently based on sub-catchments, in terms of the water quality modelling and in Table 3.11-1. Sub-catchment planning and sub-catchment scale planning is also described in Policy 9 and Method 3.11.4.5 (see Appendix 1 for the provisions in full). These provisions describe future processes that may be undertaken by WRC in engagement with tangata whenua, landowners, communities and potential funding partners to develop water quality management approaches at a sub-catchment scale. Method 3.11.4.9 also details how sub-catchment scale planning will be undertaken in urban sub-catchments. The intention is that sub-catchment planning is progressed by WRC and the community as part of non-regulatory interventions.

132. As highlighted in a number of submissions, PC1 does not include specific provisions (including objectives, policies, methods, and rules) which implement sub-catchment planning approaches in a regulatory framework.

133. A large number of submitters support the "sub-catchment approach" and seek that PC1 provisions (in particular, the rules, or more generally, the whole of PC1 are amended to adopt a "sub-catchment approach", sometimes with reference to the existing Policy 9. However, the majority of these submissions do not provide any further detail as to what this might mean for the PC1 provisions. Many submissions consider the sub-catchment provisions in PC1 currently are useful, as a means of identifying water quality improvement, but inappropriate if the policy is used to justify edge-of-field or off-site mitigation rather than the adoption of appropriate measures on-farm. Many of these submitters request Policy 9 is deleted[8].

134. Several submitters have provided specific amendments to better provide for a sub-catchment planning approach, others are less certain. If suggested amendments are included in submissions, these typically include collaborative sub-catchment groups or a variation of this

[8] Charion Investment Trust, Fletcher Trust,

theme. Many of the horticulture industry submitters oppose Policy 9 as they consider PC1 does not provide for offsetting the effects of diffuse discharges by providing mitigations beyond the farm boundary.

135. Various submitters consider sub-catchment planning needs to occur prior to the development of the FEPs as they suggest action needs to happen before the development of the FEP as there is no point spending money on a FEP that would become irrelevant. Many request timeframes for implementation of sub-catchment planning are made clear.

136. DoC seeks clarification about how Policy 9 will support measures that efficiently and effectively contribute to water quality improvements, what form of engagement will take place, and when this can be expected to occur for each priority area category. DoC also requests amendments, such as changing 'mitigations' to 'mitigation measures' and prioritising what these measures should be. DoC also requests greater certainty on the methodology that the WRC intends to use to apportion diffuse discharge reductions to each farming enterprise when those enterprises seek to use a shared or off-site mitigation measure.

137. Many of the territorial authorities seek amendment to Policy 9 to include territorial authorities in the clause (a) list of those who will be engaged early regarding sub-catchment planning. Similarly, NZ Pork requests primary industry groups are added to this list of those to be engaged in Policy 9.

138. A summary of some common or more detailed submissions follows. This is by no means comprehensive and there are likely to be variations on the below in submissions that could also be options:

1. Managing contaminants relevant to each sub-catchment

139. Many submitters request that a sub-catchment approach is adopted to address contaminants relevant to each sub-catchment, by removing the restrictions related to one nutrient (N) and enabling FEPs to determine what is best for each farm and for science to determine which contaminants are an issue in each sub-catchment. This is a particularly common approach for submitters in the hill country or upper catchment.

140. DairyNZ suggests amendments to the policy framework to describe the purpose of the FEP and how it fits with sub-catchment plans. Others suggest that sub-catchment plans should be completed prior to FEPs.

141. Several submitters also request that the sub-catchment approach is also based on land use capability. Many submitters also consider managing contaminants relevant to each sub-catchment will enable targeting on the highest discharging contaminants and will ensure resources are managed collaboratively and fairly within each sub-catchment.

142. Some submitters consider using a NRP average for a sub-catchment. This would enable high producing N farms to be encouraged to reduce their N footprint and enable low N farms to have greater flexibility to compete on an even footing.

2. Collective mitigations by sub-catchment groups

143. This approach to sub-catchment planning refines the existing approach set out in PC1, with amendments to provisions to better enable and support sub-catchment groups to work

alongside the Council to identify mitigations and solutions to specific sub-catchment water quality issues[9].

144. Submitters have also requested additions to the rule framework to enable the WRC to consider sub-catchment plans when reviewing FEPs, or to enable consents to be granted to a group of landowners at a sub-catchment level to work together to meet the water quality targets – this includes collective mitigation actions that may be used to 'off-set' losses from specified farms.

3. Catchment groups: managing to catchment load limits[10]:

145. Often in addition to the "collective mitigations" described in (2) above, some submitters also seek an ability for sub-catchment groups to apply for consent to collectively manage land uses within sub-catchment load limits. This approach requires amendments to PC1 to either set load limits, or to enable the setting of sub-catchment load limits. A rule framework that allows sub-catchment groups to apply for a consent to use land for farming activities within the load limits would also be required.

146. The submission from HortNZ proposes the inclusion of sub-catchment load limits based on information prepared as part of the development of PC1. The submission from M Peters states that load limits would need to be calculated but does not propose a method for setting the limits.

147. The submission from HortNZ also sets out the administrative requirements of a sub-catchment collective.

4. Catchment groups: managing to catchment load limits via a future Plan Change

148. The submission from Federated Farmers on PC1 requests that more detailed proposals at a sub-catchment level should be developed later, through an FMU-based assessment and implemented through a sub-catchment-based plan change. A large number of submitters have adopted this submission point in their submissions.

5. Adaptive Management[11]:

149. Similar to (2) above, Wairakei Pastoral Ltd seeks an ability for landowners to collaborate to manage contaminant discharges. The approach put forward by Wairakei Pastoral Ltd includes a number of significant amendments to the policies and rules, the addition of new schedules and definitions of the terms.

150. The submission from Wairakei Pastoral Ltd sets out, in detail, provisions that manage discharges at a sub-catchment level and a rule framework which enables a resource consent application to be made by an enterprise/farming group for a change in land use. The framework supported by Wairakei Pastoral Ltd includes the development of a sub-catchment management plan that requires the establishment of "*the principles for allocation …of an input load based nutrient cap at the refined sub-catchment level*" but does not specifically require that load limits be set. This approach also relies on an adaptive management regime, where consent holders will be required to monitor the environment, undertake predictive modelling and respond to any actual or potential adverse effect of the land use change.

6. Group Action Plans

151. The submission from Federated Farmers on Var1 describes a general planning framework based on three levels of interventions, the first of which is "Group Action Plans".

[9] Beef and Lamb
[10] HortNZ; M Peters; Fish & Game (numerous submission points)
[11] Wairakei Pastoral Ltd

152. They seek that Group Action Plans are included within PC1 with the purpose of improving water quality, and are supported by sub-catchment planning, the introduction of "Catchment Profiles" to coordinate sub-catchment information, and through FEPs taking into account "Catchment Profiles".

153. Federated Farmers suggests that:

- Action Plans will coordinate whole or part of sub-catchment(s) actions or edge of field mitigations and coordinate funding and participation; and
- There will be no legal obligation to be part of an action plan, but actions committed to by farmers as part of an action plan are taken into account when considering the tailored actions as part of the FEP.

154. The Group Action Plan approach to sub-catchment planning also includes amendments to Rule 3.11.5.6 (the use of land for farming activities), where the councils discretion includes the diffuse discharge of contaminants taking into account sub-catchment management plans and the "catchment profile".

C2.4. Analysis

155. As discussed in the Block 1 s42A Report, the Collaborative Stakeholder Group (CSG) considered a range of options for prioritisation and sub-catchment planning. However, CSG considered that prioritisation of implementation timing based on the gap between current and desired water quality and sub-catchment planning and co-ordination of actions was considered the most appropriate way to achieve the objectives of PC1. Submission points related to prioritisation of sub-catchments are not re-analysed here.

156. Many submissions support the 'sub-catchment approach' and seek it is adopted in a regulatory sense through objectives, policies and rules but do not detail what that would mean for PC1. Throughout the submissions a number of themes have come through by way of suggested "sub-catchment approaches". As identified in the Block 1 s42A Report (Page 27), the Officers have significant concerns about sub-catchment approaches that do not take a catchment-wide view to reducing contaminant losses, particularly of those contaminants that are cumulative across the whole catchment. A number of submitters who have appeared in Block 1 hearings have already discussed sub-catchment approaches, but clarity as to what that means in terms of PC1 provisions is generally still elusive.

157. The Federated Farmers suggestion of group action plans implies that resources will be needed to 'coordinate' mitigations, funding and ensure participation. Officers acknowledge the role of sector groups, central government agencies, territorial authorities, informal groups of farmers and the WRC itself in their roles as co-ordinators, funders and implementers of mitigation actions. PC1 already requires a lot of resources to implement, and it may not be appropriate to include this in PC1 as a regulatory requirement.

158. A number of submitters suggest the use of a non-regulatory framework for sub-catchment planning would increase farmer buy in and commitments. As stated, PC1 does not include specific provisions which implement sub-catchment planning approaches in a regulatory framework. The Officers agree that the inclusion of group action plans may be an appropriate option to implement a "sub-catchment planning approach", which may include more focussed actions to develop and implement FEPs, but consider this should still be under a non-regulatory framework in Policy 9.

159. The Officers do not agree with the submissions which request a sub-catchment approach focuses on managing contaminants relevant to each sub-catchment primarily through the FEP process and without restriction on further losses of contaminants that are no "of concern' in the relevant sub-catchment. This has most often occurred in submissions that highlight the controls on N in PC1 and that in some sub-catchments, no reductions in N are required. As stated above the Officers have concerns with approaches that do not take a catchment-wide view, as most contaminant discharges are cumulative across the catchment. The submitters may also be somewhat satisfied by recommendations in the Block 2 Report that reduce some of the emphasis on N.

160. The approach whereby catchment groups manage land use within catchment N load limits, is considered by the Officers to be difficult to implement, but unlikely to be precluded by the policy and rule framework recommended in PC1. Effectively, a group of farmers could apply for a resource consent to do this. The setting of a N load limit by sub-catchment relies on considerable additional monitoring and modelling, relies on Overseer to an extent that would have some risks (a per-property numeric N limit would presumably need to apply) and would need to effectively manage the other three contaminants. This theme would also apply to the relief sought by Wairakei Pastoral to manage contaminants at the sub-catchment level and to enable a resource consent application to be made for land use change. As the Officers understand it, the recommended policy and rule framework does not preclude it.

161. The Wairakei Pastoral Ltd framework is comprehensive and reflects considerable investment in monitoring and modelling. Officers are concerned about enshrining a framework in PC1 that is more applicable to one or two sub-catchments, and likely less applicable to the majority of sub-catchments. Further, Officers are concerned at the limited matters of discretion available in the suggested framework for the assessment of any restricted discretionary activity resource consent application, and given the risks inherent in further intensification in the upper parts of the catchment, consider the framework requested is not adequately precautionary.

162. While many PC1 mitigations are best applied on individual properties, there are others, such as sediment traps, created wetlands and stream naturalisation that are sometimes best applied or more efficiently established on a larger scale within a specific sub- catchment. A good example may be a created wetland, which could be best established along the edge of a lake, another waterbody, an existing wetland or and a naturally low lying area. Pooling of resources by a number of farmers, other agencies along with coordination will likely be required. If the relevant farmers wish to claim "credit" in a regulatory sense for off-farm mitigation for any of the four contaminants, problems can arise with guaranteeing those credits over the longer term. While those credits could be recognised in a resource consent framework, some other formal mechanism of protecting and maintaining the physical works, allocating any credits and ensuring those credits in the longer term would need to be established. These kinds of issues encourage, in the Officers' view, a flexible, non-regulatory approach to sub- catchment planning where case-by-case responses can be established. A policy and rule regime that does not preclude this happening is considered a better approach than one where the policies and rules set out how this can happen and try to specify the required pre-conditions.

163. An element of sub-catchment planning that appears to be poorly described in the existing PC1 is the tracking of progress toward achieving the objectives of each FMU. Several submissions identified that there is no single "monitoring point" for each FMU. Officers understand that that is intentional, but possibly poorly explained in PC1.

164. Officers understand that the monitoring results for each sub- catchment will provide an indication of progress towards the outcomes in Table 3.11-1, with all of the sub- catchments

within an FMU being used to establish whether the FMU is meeting or making progress towards the freshwater objectives. In the Officers' opinion this paints a more nuanced picture of water quality in each FMU, rather than relying on a single monitoring site, which could easily have some areas not making progress and others overachieving. Officers recommend addition of wording to PC1 to clarify that this is a further use of the sub-catchment approach.

C2.5. Definitions

C2.5.1. Edge of field mitigation/s

Submissions

165. In total there were seven submissions to the definition for edge of field mitigation/s. Forest and Bird support the definition and request it is retained. Miraka Limited and Pouakani Trust request more clarity is provided as the definition is considered to be insufficient as the term edge of field is unclear.

166. WRC request this definition is amended to clarify which actions or technologies will be considered for funding in Method 3.11.4.5(g). They also suggest that edge of field should be defined in the definition sections.

167. Mangakotukutuku Stream Care Group Incorporated seek amendment to the definition or a new term/definition that specifically relates to the function that these areas have in reducing contaminant losses to offsite surface waters.

Analysis

168. The Officer's do not agree with Miraka Limited and Pouakani Trust that the definition is insufficient, the Section 32 report defines edge of field mitigation/s as mitigations that intercept contaminants for the achievement of water quality targets in the first 10 years and provides a description of what these mitigations may be. Therefore, the Officer's do not accept further clarity is required for the definition.

169. The Officer's do not consider it appropriate to include a description of the effect that edge of field mitigations will have on reducing contaminant losses to offsite surface waters as that is not the intention of providing the definition for edge of field. Therefore, the Officers do not recommend acceptance of Mangakotukutuku Stream Care Group Incorporated's relief.

170. As noted above, edge of field is described more fully in the Section 32 report and a specific definition of edge of field, in the Officer's opinion, is not necessary. Therefore, the Officers' do not recommend the WRC submission be accepted. The Officer's also consider it inappropriate to include reference to which action or technologies will be considered for funding in Method 3.11.4.5(g) as requested by WRC, particularly as that method is recommended to be deleted. Overall, the Officers' consider that most of the relief sought moves beyond providing clarity in the definition toward specifying outcomes or methods, and should not be included in the definition section.

C2.5.2. Sub-catchment

Submissions

171. In total there were six submissions to the definition of sub-catchment. Wairakei Pastoral support the definition and seek it is retained and DoC support the reinstatement of the withdrawn sub-catchments through Var1.

172. Mercury request the reference to the number of sub-catchments is amended as a result of relief sought elsewhere in the submission. They also request a minor reference error is amended to ensure the definition reads:

> *…means an area of land within the Waikato or Waipa River Catchments…*

173. Federated Farmers supports the definition however considers an individual sub-catchment may not be the appropriate spatial unit for analysis and modelling and it may be appropriate to consider groups of related sub-catchments. Therefore, they request the definition is amended to read:

> *…locations in the stream and river network, and may be used as the basic spatial unit for analysis and modelling.*

Analysis

174. In regard to Mercury's relief sought, it is noted that the Waipa is a tributary of the Waikato River therefore it is included in the Waikato River Catchment. However, the Officer's accept that including Waipa into the definition is consistent with terminology in PC1 and therefore recommend this submission is accepted.

175. Mercury also identify an issue with the monitoring sites in Table 3.11-1 and the number of sub-catchments identified in Map 3.11-2. This relief sought has been addressed in other sections of this report.

176. The Officers do not agree with Federated Farmers view that individual sub-catchments may not be the appropriate spatial unit for analysis and modelling, as the basis for dividing the catchment into 74 sub-catchments was for modelling purposes by aggregating River Environments Classification drainage units between selected sites located along the drainage network[12]. However, Officers note that reference to how sub-catchments are used is possibly redundant as further monitoring and planning cycles occur, and recommend that part of the definition be deleted.

Recommendation:

177. Amend the definition to read:

> ***Definition – Sub-catchment***
> ***Sub-catchment:*** *For the purposes of Chapter 3.11, means an area of land within the Waikato and Waipa[13] River Catchments[14] representing the contributing area draining to one of the 74 locations in the stream and river network~~, and used as the basic spatial unit for analysis and modelling~~.*[15]

[12] Semadeni-Davies A et al 2015a. Modelling E.coli in the Waikato and Waipa River Catchments Development of a catchment-scale microbial model WRC Report No HR.TLG.2015-2016.2.6 Doc 3428411
[13] Mercury Limited PC1-9685
[14] Mercury Limited PC1-9685
[15] Federated Farmers V1PC1-810

Recommendation on submissions:

5. Accept all those submissions that supported the plan provisions which are recommended to remain unchanged or largely unchanged

6. Reject those submissions who sought the deletion of the Plan Provisions which are recommended to remain unchanged or largely unchanged

7. Accept, or accept to the extent, those submissions that sought the changes recommended as set out in the revised plan provisions

8. Reject, or reject to the extent, those submissions that do not support the changes recommended as set out in the revised plan provisions

C3. Farm Environment Plans (Schedule 1)

C3.1. Summary of this section and recommendations

178. Farm Environment Plans are a key component of PC1. They are intended to guide the adoption of a range of farm-specific actions to reduce contaminant losses. In Block 2, the overall policy approach in relation to the use of Farm Environment Plans was discussed, but not the detail of Schedule 1, which is the part of PC1 that sets out in detail the requirements for the contents of FEPs. The key policy recommendations included:

- Shifting the focus of Policy 2 to be a specific policy on FEPs.
- Maintaining, and strengthening FEPs as a core methodology in PC1 to deliver reductions across all of the four contaminants.
- Identifying that the more widely recognised 'good farming practices' (GFP) framework is an important foundation for FEPs, in terms of guiding their development, providing a more outcomes focused approach, and checking on implementation.
- Requiring audits of FEPs and their implementation to give confidence to the Council, the community and farmers that improvements in farm practices are being made.

179. The Block 2 S42A Report did not make any recommendations on the specific detail of Schedule 1, on the basis that it was anticipated that experts would redraft it to align with the recommended changes to the policy approach. However, a paper prepared by WRC's PC1 implementation team was developed and included within the Block 2 S42A report that provided a summary of how FEPs and the GFP framework could be used, and this included a conceptual framework for what might be included under a GFP approach to describe how a farmer would be required to operate.

180. Following this, WRC, as a submitter, was tasked with organising and running FEP workshops with industry bodies and practitioners to socialise and test the implementation team's position. It was intended that these workshops be used to help WRC revise Schedule 1 to better align it with GFP principles whilst also ensuring it provided a sensible and practically implementable approach for practitioners. While the workshops were useful, and there was some broad agreement around the intention of the GFP approach, it is acknowledged that the workshops did not lead to support from all parties. Nonetheless, the discussion and information obtained at these workshops has helped inform the revision of Schedule 1, which is outlined in a further paper prepared by the implementation team and included within this S42A Report.[16] This paper sets out the text for a revised Schedule 1, that would enable the conceptual approach outlined in the previous paper and which is intended to incorporate the minimum requirements of PC1 and the GFP approach into the FEP. The paper also outlines more detail about how the GFP approach could be implemented, beyond the PC1 provisions. This is intended to provide further explanation of how the recommended Schedule 1 text, along with a targeted implementation approach, will assist with reducing contaminant loss and achieving the objectives of PC1.

181. This section therefore makes recommendations in relation to the focus and specific wording of Schedule 1, based on the approach and specific wording recommended by WRC's PC1 implementation team. The key components of the recommended text for Schedule 1, which specifies the content an FEP must contain are:

- Identification of property details and features.

[16] *Proposed revisions to Schedule 1 to incorporate good farming practice into Farm Environment Plans.*

- Eight specified objectives, each with related principles, which the FEP must demonstrate are being met and how; or where not met, identification of the practises and actions that will be adopted to meet these. The objectives relate to: whole of farm; nutrient management; waterways; land and soil; effluent; and water and irrigation.
- Requirements around auditing, including the requirement for records and evidence to measure performance of achievement of the principles.
- Provision for changes to be made to FEPs.

C3.2. Introduction and Provisions

182. The policy basis for the use of FEPs is provided in Policy 2. As notified, this policy provides for a tailored approach to reducing diffuse discharges from farming activities, with FEPs being a key element to this approach, as well as provision for the establishment of NRPs and mention of stock exclusion requirements. Changes recommend to Policy 2 include refocussing it on FEPs and therefore include removing aspects of the policy that relate to other management tools.

183. PC1 requires a FEP to be prepared for most farmed properties over 20ha. For farming properties (excluding CVP) not covered by other permitted activity rules, Rule 3.11.5.3 and Rule 3.11.5.4 require property owners or enterprises to develop and implement a FEP either through a Certified Industry Scheme, or through a resource consent. Rule 3.11.4.5 requires existing commercial vegetable production to develop and implement a FEP through a controlled activity rule or undertaken in accordance with a Certified Industry Scheme. Schedule 1 is referred to in the conditions or standards and terms of rules 3.11.5.3, 3.11.5.4, and 3.11.5.5. These rules require preparation of a FEP in accordance with Schedule 1. Consent applications under Rule 3.11.5.6 as notified needed to consider the need for and content of a FEP as a matter of discretion

184. Schedule 1 describes the required content for FEPs. In brief, the FEP should identify the sources of sediment, nitrogen, phosphorus and microbial pathogens, and identify a plan of action to reduce the risks of contaminant losses from those sources and timeframes for those actions to be completed that are tailored to each property. FEPs are required to be certified as meeting the requirements of Schedule 1 by a CFEP, the definition for which sets out the minimum qualifications and experience required for a person to be a CFEP. The dates by which FEPs are required vary based on sub-catchment Priority. Priority 1 sub-catchment FEPs are generally due on 1 March 2022, Priority 2 by March 2025, and Priority 3 by 1 July 2026 (timeframes stated in Rules 3.11.5.3 and 3.11.5.4).

185. The WRPS, Section 4: Integrated Management contains a Method (Method 4.1.5) relating to environmental management plans. This method supports the development of property level environmental management plans to promote positive outcomes and manage the effects of rural land uses including farming.

C3.3. Farm Environment Plan content

C3.3.1. Broad changes sought to Schedule 1 and the approach to FEPs

186. While the Block 2 report did not make recommendations on the specific content of Schedule 1, the submissions discussed in that report related to the framework for FEPs broadly and

therefore those submissions are relevant to the specific context of Schedule 1. These submissions can be broadly summarised as follows:

- Concern about the use of FEPs within the PC1 framework, with submitters seeking the deletion of FEP requirements from PC1 altogether
- Clearer direction being needed about what FEPs are intended to achieve, such as a more clearly defined purpose or goal for FEPs, as well as actions and timeframes for completion of actions to achieve the goals.
- Concerns regarding the complexity of FEP requirements, including the level of detail required and the lack of flexibility.
- The need to provide greater clarity and certainty regarding Council's expectations about the content and level of detail required for FEPs.
- Questioning the adequacy of the requirements in Schedule 1, the subjectivity of the information to be provided which could introduce ambiguity and lead to inequitable application and inconsistent interpretation.
- Requests for reference to 'risk-based approaches' to be replaced with reference to good or best management practises or similar. Conversely other submitters support the risk-based approach for FEPs.
- The need for more direction on 'minimum standards' and actions that should be included in FEPs, such as requirements/encouragement for particular fencing or planting, and for further guidance (criteria or principles) on what are acceptable timeframes for the completion of mitigation actions.
- The importance of consistency in what actions are required and the risks and impacts.
- Issues with implementation, including the costs of FEP preparation and implementation, the inability of farmers to complete their own FEPs and the timeframes to prepare and implements FEPs being unrealistic. Conversely, some submitters seek shorter timeframes for preparation and implementation of FEPs.
- The need for the FEP process to include appropriate auditing and monitoring, including accountability for actions.
- The need for FEPs to be flexible so that continuous improvements can be made, with appropriate transparency around review of FEPs.
- Requests for FEPs to be able to be used at a catchment or sub-catchment level by groups.

187. In response to these submissions, Officers agreed with the need to change Policy 2, being the policy within PC1 that provides direction in relation to FEPs. The changes recommended to the policy/analysis of approach, which are relevant to the content of Schedule 1, are as follows:

- FEPs should continue to be a key part of PC1, and be strengthened, as they are an effective means of encouraging actions to reduce diffuse discharges.
- While the cost in developing and implementing FEPs is acknowledged, there do not appear to be viable alternatives set out in the submissions and officers are unaware of a better and less costly way of achieving the same ends.
- PC1 should contain clear outcome statements to guide the use of FEPs, that go beyond reliance on the objectives of PC1 itself.
- FEPs should be flexible and have more of a focus on outcomes, so that they enable changes in farm practises in response to changing conditions, new technologies or improved practises.
- FEPs should shift towards taking a "Good Farming Practise" approach, and while focussing FEPs on GFP, they can be used alongside minimum standards
- FEPs should include methods for ensuring implementation has occurred and is effective.

- Policy 2 should place greater emphasis on the risk-based approach, and require greater action from farmers who are undertaking high-risk activities, operating in higher risk environments or are further from GFP.
- Auditing of FEPs and on-the-farm actions should be required.

C3.4. Specific Changes sought to Schedule 1

188. In addition to the broad submission themes identified above and discussed in Block 2, there are also a number of submitters who seek specific changes to Schedule 1, outlined in the following paragraphs. It should be noted that this covers key changes, and does not include more minor changes, for example to individual words used, numbering or minor corrections.

C3.4.1. Limiting the Focus of Farm Environment Plans

189. Around 15 submitters consider that the FEP costs are not warranted for sub-catchments that require minimal nutrient reduction and relative to the water quality outcomes. They request that FEPs are only required in sub-catchments where the science indicates water quality improvements are required.

190. Several submitters consider that rather than applying blanket rules to all agriculture, the provisions should focus on reducing impacts from intensive agriculture rather than extensive agriculture.

C3.4.2. Assessment of Risk: Schedule 1, Clause (2)

191. Schedule 1 as notified requires that a risk assessment is undertaken and included within FEPs, which includes: a description of the where and how stock will be excluded from water bodies (2)(a)); a description of the setback and riparian management (2(b)) and the description of cultivation management (2(f)). These include specific standards that must be met, which are also matters dealt with elsewhere in PC1. There were a significant number of submitters on Schedule 1 who raised concerns with the specific standards, including their practicality, the justification for the specific standards; how they align with PMP, BPO or industry agreed standards; and that the firm standards are contrary to the principle of a tailored farm-specific FEPs.

192. More than 40 submitters, including Beef & Lamb, consider that the focus in FEPs should be on identification and management of critical source areas, rather than other blanket restrictions such as stock exclusion, as they consider this will better deliver environmental outcomes. Several submitters feel a specified setback distance is too prescriptive and will lead to lost opportunity costs and ongoing maintenance costs. Instead, they consider that the setback distance should be designed to mitigate the environmental risk or the risk of discharge.

193. Conversely, other submitters, including DoC, consider the grazing setback distances to be insufficient and seek that they are increased, and consider that the grazing and cultivation setbacks on sloping land should be dependent on soil type (e.g. 20 m setback for sloping land of 20 degrees or more).

194. Some submitters agree with FEPs being used to deal with the matters addressed in Schedule 1, but seek that the specific requirements are considered and set through FEPs, rather than through the PC1 rule framework or through blanket requirement in Schedule 1 that would apply in all cases. For example, in relation to stock exclusion (clause 2(a)), some submitters seek that FEPs be used as the mechanism to mitigate discharges associated with stock and waterways, or to provide for alternative management approaches to stock exclusion, instead of a blanket

approach to exclusion of stock. Similar concerns are raised with the minimum grazing setbacks from waterbodies and cultivation setbacks, with some submitters requesting that rather than Schedule 1 including specific distances, the distance should be included in the FEP to mitigate the risk, taking into account individual risk factors, including critical sources areas. Rather than setting specific distances, Federated Farmers, for example, consider that reasonable minimum stock exclusion and cultivation setback standards should be set out in Schedule C and the assessment of more stringent standards should be undertaken as part of the FEP critical source area assessment.

195. Conversely, other submitters seek that Schedule 1 is amended to require FEPs to include the following additional matters:

- Identification of additional details or matters, including: spatial mapping requirements for the identification of various areas/items; irrigated areas on the property; any soil moisture monitoring; significant indigenous biodiversity, outstanding water bodies and sensitive receiving environments on or adjacent to the property; all permanent and ephemeral wetlands; where existing drains can be restored or intercepted to reduce nutrient and sediment inputs into lakes; and a description of any other wastewater irrigation or fertiliser management activities on the site including the use of fertiliser replacements.
- requirements to stop/avoid: existing drainage of wetlands and any future drainage of wetlands; farming of older cattle on slopes in winter or when wet; and farming cattle intensively on slopes.
- requirements to: fence off swamps and plant out to provide silt traps to remove sediment; construct sediment traps near the headwaters to help slow flow and trap sediment; plant shade trees away from waterways to discourage stock camps and nutrient build-up; use temporary electric fencing where and when necessary; plant poplar poles on erosion prone slopes; identify suitable units for planting pines; fence off waterways on more intensively farmed areas of the farm and provide reticulated water for stock.
- extending various standards to specifically refer to lakes.

C3.4.3. Information requirements and information privacy

196. Some submitters have concerns about the privacy of the provision of information to Council or farm advisers, requesting that the information required by Schedule 1 is kept to a minimum; that private information supplied is secure and individual and enterprise privacy is protected; or that there is clear guidance around who will have access to the information in FEPs.

197. Federated Farmers doubt the legality, and question the necessity of, the Council seeking some of the information in Schedule 1. Federated Farmers request that the information purpose is clearly stated, is within Council's powers and is no more than is necessary to achieve the purposes for which it is sought. A. Fullerton requests that only information about environmental issues is collected, rather than aspects of business.

C3.4.4. Who prepares and or certifies an FEP?

198. Under the provisions as notified, the relevant rules require that FEPs are prepared in accordance with Schedule 1, and that they have been approved by a Certified Farm Environment Planner. A number of submitters seek changes to process, requirements for and funding of the preparation of FEPs. Matters raised include:

- The cost of using a CFEP and the availability of qualified CFEPs to approve FEPs within the timeframes specified in PC1.
- A desire for farmers to be able to prepare (with support, education and/or auditing by a CFEP) their own FEPs;
- Requests to replace the CFEP process with an industry approved standard;
- Provision of FEP templates that can be customised to individual farms.
- Requests for WRC to provide joint funding of the FEP, or compensation, incentives or subsidies for either the cost of preparing and or the implementation of FEPs.

199. Submitters also seeks changes in relation to CFEPs, including:

- Clarification of who is qualified to sign off or certify a FEP.
- The need to avoid a conflict to interest between those preparing and those auditing FEPs, and concerns as to whether a conflict of interest arises by using 'farm industry professionals', such as fertiliser company representatives, to certify and audit performance against FEPs and required standards.
- Submitters who seek that CFEP must meet additional requirements, such as: suitable experienced in farming, experience in the Waikato and Waipa area; experience with the relevant soil types; the skills to interpret land use capability at a farm scale level; completion of specialist training in land use capability mapping.
- Conversely, other submitters seek a reduction in the experience require of CFEP from 5 year to 2 years, or an allowance be made for more time to train and recruit rural professionals to develop FEPs.

C3.4.5. Dispute resolution

200. More than 10 submitters, including Federated Farmers, are concerned that interpreting and applying the rules may be inconsistent and there is no low cost appeal process. Some submitters seek provision for the establishment of an independent panel of other dispute resolution process to deal with contested points between staff and farmers in a resource consent or FEP.

C3.4.6. Monitoring, auditing and review of Farm Environment Plans

201. Schedule 1 as notified did not include a process for how an FEP might be amended or reviewed. As noted by some submitters however, Rule 3.11.5.3 clause 7 allows for FEPs to be amended "*in accordance with the procedure set out in Schedule 1".* Submissions relating to this include concern regarding the lack of a procedure for the review and or amending of FEPs and the need for a robust revision mechanism; and the need for FEP flexibility, so that properties and enterprises can respond to local events.

202. In terms of the specific review process sought by submitters, requests include: a regular review process; annually for the first 5 years; 5 year intervals; 10 yearly intervals; or when there is a change in property and or enterprise ownership.

203. A number of submitters raise queries in submissions regarding the auditing process for FEPs. These include:

- A need for definition of the process for auditing FEPs, including that auditors be suitably qualified, certified and independent.
- Requests for a standardised program to monitor the effectiveness of FEPs on a frequent basis, with the frequency of auditing to decrease once compliance or an agreed standard is achieved, or the auditing and monitoring shows that mitigation measures are implemented and effective.

- Clarification of who will be responsible for monitoring, how monitoring of FEPs will be undertaken and who will pay for monitoring, and a requirement to keep a records of inspections.
- Clarification over who will enforce FEPs and the penalties and consequences of not preparing or implementing a FEP.
- Clarification over how FEP responsibilities relate to lease arrangements.

C3.4.7. Consistency between the policies, rules, schedules and definitions

204. Several submitters raise concerns that there are inconsistencies between the Schedule and other PC1 provisions, such as the Rules, other Schedules and the Glossary of terms. For example:

- Rules requiring compliance with Schedule C, which in turn requires stock exclusion by fencing, whilst Schedule 1 allows for alternative mitigations where fencing is impractical;
- Differences between the distances in the stock exclusion setback in Rule 3.11.5.2 (3 metres) and the 1 metre setback in Schedule C and the slope based setback in Schedule 1.
- Some standards specified in Schedule 1, such as minimum grazing and cultivation setbacks are not reflected in any of the proposed rules.
- Schedule 1 clause 4 not reflecting the need for proportionality of discharge reduction as described in Policy 2(e) and Policy 3(g).
- Clarification over the date by which compliance with the NRP is required, (when the NRP is submitted to Council, or when the FEP is produced as implied by Schedule 1); and
- Schedule 1 requiring a FEP to be prepared by a CFEP, and Method 3.11.4.3 which requires the FEP to be prepared by a certified person.

205. WRC seek clarification of how the discretion provided to exceed the NRP in the Rule 3.11.5.4(iii) and Schedule 1 provided by the wording 'unless other suitable mitigations are specified' should be exercised.

206. Fonterra considers that it should be clear in the introduction to Schedule 1 that a wastewater irrigation management plan required by a resource consent applied for under Rule 3.5.4.5 of the WRP can be considered a FEP provided the relevant minimum requirement of Section A are addressed in the management plan.

207. Auckland Council seek clarification over how FEPs will apply to properties or enterprises which overlap a shared local government (regional council) boundary.

C3.4.8. Analysis

208. As noted above, a paper prepared by WRC's PC1 implementation team was developed and included within the Block 2 S42A report that provided a summary of how FEPs and the GFP framework could be used, and this included a conceptual framework for what might be included under a GFP approach to describe how a farmer would be required to operate. This included:

- That the objective of an FEP should be to show that farming activities are consistent with GFP;
- A description of the process required for developing an FEP, and how that related to GFP;
- What other information should be included in a consent application alongside the FEP;
- What types of conditions should be included on a resource consent, including audit requirements;

- The ability to change the FEP at any time; and
- A description of auditing requirements and consequences.

209. In terms of Schedule 1, the WRC implementation team's paper notes that as notified, Schedule 1 included a large amount of detail designed to guide the farm environment planner as to how to decide what needs to be done on a particular farm. It states that "*The adoption of GFP as the objective of the FEP would allow a large amount of that detail to be removed from the schedule, which instead could be incorporated into a guidance manual for CFEPs and auditors."* They suggest paring back Schedule 1 to establish GFP as the objective for the FEPs, and to establish the compliance audit process and some informational requirements for each FEP. They also considered that the schedule could include specific bottom lines if required, such as minimum performance standards required to be operating at GFP. They considered that the approach would greatly reduce the complexity of Schedule 1.

210. As noted earlier, since the Block 1 hearing, WRC, as a submitter, facilitated and ran workshops on the proposed approach to GFP and FEPs with industry bodies and practitioners. This helped to inform revisions to the specific wording proposed for Schedule 1. The wording, along with supporting information about the wider implementation of FEPs, is provided in a paper that is contained within this S42A Report.[17] The revised schedule takes an outcome-based and principle-based approach to FEPs, is considered by the implementation team to be inherently more flexible, and is expected to empower land-owners to operate and respond to changing circumstances over time, in a way that focuses on the achievement of a desired result, rather than completing a fixed set of actions.

211. The specific wording recommended for Schedule 1 aligns with the previous recommendations of WRC's implementation team to pare back Schedule 1 and focus the objectives for FEPs on GFP, as well as clarifying the audit process and informational requirements. The proposed sections within Schedule 1 are:

- PART A: Requirements around the provision of FEPs.
- PART B: Specification of what an FEP must contain, including property details, mapping, and the objectives and principles that FEPs must be demonstrated to either meet, or detail provided as to how they will be met.
- PART C: Audit requirements.
- PART D: The process and requirements for changes to FEP.

212. As noted in the paper, Schedule 1 as revised is aimed at creating an obligation to farm in accordance with 6 objectives - one high level overarching objective related to the whole farm, and five objectives related to a specific area of management on the farm. Collectively these objectives apply to the management areas of the farm that contribute the four contaminants PC1 seeks to manage. Each objective is supported by one or more principles, which give guidance about how the objective is to be met. Principles 1 -21 are copied from the principles set out in the Good Farming Action Plan for water quality 2018[18], or are based on these but amended as considered necessary to better reflect PC1's objectives or provide greater clarity in a PC1 context.

[17] *Proposed revisions to Schedule 1 to incorporate good farming practice into Farm Environment Plans.*
[18] Good Farming Practice Action Plan for Water Quality 2018, http://www.fedfarm.org.nz/FFPublic/Policy2/National/Good_Farming_Practice-Action_Plan_for_Water_Quality_2018.aspx

213. Under the revised schedule, a farmer would be required to create an FEP, with a CFEP either helping with its development and/or signing off that the FEP meets the Schedule 1 requirements, which:

- Assesses their farming operation against each of the objectives and principles
- Records and commits to continuing those existing actions and practices that are consistent with the objectives and principles
- Identifies actions and practices that need to be changed or adopted in order to be consistent with the objectives and principles.

214. The paper also outlines in detail how the FEP process would be implemented, both in terms of the revised schedule, as well as outside the provisions of PC1. This includes details of how the consenting process is expected to operate and how the auditing process would work.

215. The recommendations made in Block 2 regarding the approach to FEPs, the recommended approach to FEPs in the WRC implementation team's earlier paper, as well as the specific changes now recommended to Schedule 1 already address, or essentially supersede the majority of the specific submissions outlined above. In broad terms:

- FEPs will still be used to address the matters included in Schedule 1 as notified, and can be used alongside minimum standards. However, any minimum standards will sit in the Plan rules and Appendices, rather than within Schedule 1.
- The additional matters sought to be included in Schedule 1 by various submitters are in some cases included in Schedule 1 to the extent that they relate to specific mapping requirements or are matters addressed through principles. The remaining matters are not explicitly referred to, but would need to be considered in an FEP to the extent that they are relevant to meeting or moving towards achieving the identified objectives and principles.
- WRC recognises the privacy concerns, and these are addressed in relation to analysis on Schedule A in the Block 2 report. Overall, information included in the FEP is about how the farm will be managed with respect to risks to water quality and is not about business or economic matters.
- The revised Schedule 1 requires that auditing be undertaken by a CFEP. However, the audit process itself will be set out in a separate audit manual. This approach provides for greater farmer input into the production of FEP's, with robustness and transparency provided through the involvement of a CFEP in auditing.
- The revised Schedule 1 allows for the preparation of industry FEPs, but specifies the standards they must meet, and requires their approval by Council's Chief Executive as satisfying those standards.
- In terms of dispute resolution officers noted that there is already a process under the RMA (Section 357A, 357C, 357D and 358) for applicants to object to consent conditions. It is not considered appropriate to specify within PC1 any additional or alternate dispute resolution matters, albeit the Council could do so as part of implementation.
- While the FEP anticipated by Schedule 1 could incorporate current industry-developed FEPs, or the wastewater irrigation management plan required under Rule 3.5.4.5 of the WRP, these plans would need to be reconsidered, certified and audited to ensure they met the requirements of the recommended Schedule 1.
- Officers note that in relation to preparing FEPs for properties or enterprises which overlap a shared regional council boundary, that the relevant parts of the property will need to meet the requirements for the relevant jurisdiction. This is the case with any regional rules applying to such properties.

C3.5. Definitions mainly relevant to FEPs

C3.5.1. Best Management Practice

C3.5.1.1. Background

216. BMP is defined under PC1 as:

> ***Best management practice/s:*** *For the purposes of Chapter 3.11, means maximum feasible mitigation to reduce the diffuse discharge of nitrogen, phosphorus, sediment or microbial pathogens from land use activities given current technology.*

217. BMP is referenced within Policies 3 and 16 in relation to achieving diffuse discharge reductions and certain actions to be taken into account for the management of contaminants following land use change. The provision is also referenced in Method 3.11.4.12 for WRC to develop BMP guidelines for reducing diffuse discharges of contaminants.

C3.5.1.2. Submissions

218. In total, 16 submissions were received on the definition of BMP. Eight support the definition with amendments, three oppose the definition, three oppose the definition with amendments, and two support the definition.

219. AFFCO New Zealand Limited support the definition but consider that reference to both GMP and BMP within PC1 suggests that there are differing levels of obligation on resource users to avoid, remedy or mitigate adverse effects. The submitter notes that these terms are also different to the 'best practicable option' (BPO) as defined under the RMA. As such, the submitter seeks the definition of GMP to be deleted and replaced with the definition of BPO from the RMA. AFFCO New Zealand Limited are also concerned that there is no guidance material developed by WRC to interpret or explain the intent of the use of these terms. Oji Ltd also consider the definition should be replaced with the RMA definition for BPO.

220. Some submitters support the provision but consider that it should be amended to provide for off-set mitigation techniques implemented across an enterprise[19]. Others consider that the definition is ambiguous, uncertain or confusing[20]. Forest and Bird support the recognition of a BMP approach but considers the use of the word 'feasible' creates uncertainty as it is subjective. The submitter considers that the requirements and expectations for BMP should be set out in a schedule or within the definition. G Kilgour supports the use of 'feasible' within the definition but does not consider that it should be the maximum feasible mitigation measure. As such, the submitter seeks the deletion of 'maximum' from the definition.

221. Federated Farmers oppose the definition and consider that it is not necessary if their maximum feasible mitigation framework is adopted. The submitter is concerned with the focus on the maximum reduction of contaminants and considers that the wording of the definition is subjective and uncertain. Others oppose the definition as they are concerned with the use of a specific definition within PC1 for a term that is widely used[21]. The submitters seek that the definition is deleted in its entirety.

[19] Ata Rangi 2015 Partnership Limited, Southern Pastures Limited Partnership
[20] G Kilgour, Forest and Bird, Oji Fibre Solutions (NZ) Limited
[21] FANZ, Ravensdown

222. J M Reeve supports the provision but notes that the definitions of BMP and GMP appear to overlap. As such, the submitter seeks amendments for both provisions to combine them into a single definition. G Pinnell supports the definition but suggests that the provision considers the 'net benefit test' and seeks amendments which take into account the cost effectiveness of the practices. The submitter also considers there needs to be alignment between the definitions of BMP and BPO within PC1.

223. HortNZ seeks that the definition is retained, supporting the use of separate definitions for GMP and BMP as they represent different methods within the horticulture sector.

224. WRC support the provision with amendments. The submitter notes that there is a focus in the definition on current technology. However, a mitigation of discharges may be a change in management that reduces discharges but not necessarily reliant on technology. Therefore, WRC seek the reference in the definition to current technology be refined to incorporate mitigation that can also be achieved through changes to management practices.

C3.5.1.3. Analysis

225. As covered in previous sections of the s42A report, Officers consider the concept of GFP is preferred to BPO. Therefore, Officers do not agree with the submissions seeking to amend or remove the existing definition of BMP in favour of a BPO approach.

226. Additionally, it is noted that the inclusion of off-set mitigation techniques within the definition is addressed separately within this Section 42A report in relation to enterprises. Therefore, the Officers do not consider this to be relevant to the definition of BMP.

227. In relation to J M Reeves' submission, Officers note that adopting BMP would result in less losses of the four key contaminants than GMP/GFP. However, Officers do not agree with combining the two definitions into a single provision.

228. Several submissions are concerned with the use of 'maximum' or 'feasible' within the definition as they consider it to be uncertain, subjective or redundant. It is the Officers' view that the removal of 'maximum' or 'feasible' from the definition would result in the loss of the 'best' component of BMP. However, Officers acknowledge that there is an element of subjectivity, similar to the concept of BPO. At this time, the overall position is to not use this phrase, and accordingly not need the definition. If it is to be used, the Panel may wish to explore more certain words or practices to improve this definition.

229. In terms of WRC's submission, the Officers agree that the definition restricts the ability for land owners to make reductions in contaminants based on management practice changes that may not be reliant on technology. On this basis, Officers recommend that, if it is to be retained, the last three words of the definition are deleted.

C3.5.1.4. Recommendation

230. Officers recommend the definition is deleted if it is not used in the final recommendations.

231. OR

232. If not deleted, Officers recommend the definition is amended as follows:

> **Best <u>Farming</u> ~~management~~ ~~p~~<u>P</u>ractice/s:** For the purposes of Chapter 3.11, means maximum feasible mitigation <u>beyond that undertaken in accordance with Good Farming</u>

Practice to reduce the diffuse discharge of nitrogen, phosphorus, sediment or microbial pathogens from land use activities ~~given current technology~~.

C3.5.2. Definition – Certified Farm Environment Planner

C3.5.2.1. Background

233. Within PC1, a FEP must be approved by a Certified Farm Environment Planner (CFEP) as meeting the requirements set out within Schedule 1. In accordance with Rule 3.11.5.2(3), landowners are also required to provide WRC with independent verification from a CFEP demonstrating that the use of land is compliant with Rule 3.11.5.2(3)(b)(i) or (3)(b)(ii).

234. A CFEP is defined within PC1 as:

> ***Certified Farm Environment Planner:*** *is a person or entity certified by the Chief Executive Officer of Waikato Regional Council and listed on the Waikato Regional Council website as a Certified Farm Environment Planner and has as a minimum the following qualifications and experience:*
>
> *a. five years experience in the management of pastoral, horticultural or arable farm systems; and*
>
> *b. completed advanced training or a tertiary qualification in sustainable nutrient management (nitrogen and phosphorus); and*
>
> *c. experience in soil conservation and sediment management.*

235. The role of the CFEP is distinct from a 'Certified Farm Nutrient Advisor' (CFNA) under PC1, as the latter is required to calculate NRPs to determine the amount of N being leached from a property or enterprise during the relevant reference period, and is subject to different certification criteria. The definition of CFNA is discussed within Block 2 of this Section 42A report.

C3.5.2.2. Submissions

236. In total, 21 submissions were received on the definition of CFEP. 16 support the definition with amendments, three oppose the definition with amendments, and two oppose the definition entirely.

237. Some submitters are concerned with the minimum training level required and consider that the definition should include the requirement for certified persons to hold, as a minimum, a certificate of completion in Advanced Sustainable Nutrient Management in New Zealand Agriculture from Massey University or an equivalent qualification22. The submitters consider this amendment will ensure that CFEPs are suitably qualified and more certainty is provided for what constitutes 'advanced training'.

238. Others consider that CFEPS should be equally qualified, experienced, and have knowledge across all contaminants, including sediment management23. Therefore, the submitters seek the addition of a requirement for sediment management qualifications, such as the New Zealand Association of Resource Managers Professional Certification. Others consider that CFEPs should have completed specialised training in land use capability24.

239. Many submitters are concerned that there will be a lack of CFEPs available to meet the demand for FEP approvals and deadlines25. Some of these submissions suggest this will be a result of the

[22] Ballance, FANZ, Ravensdown, Oji
[23] Poukani Trust, Miraka Limited
[24] New Zealand Association of Resource Management
[25] Waipapa Farms Ltd and Carlyle Holdings Ltd, A McGovern, DairyNZ, Q O Lichtwark, NZIPIM

definition being too prescriptive and narrow26. Others note that there are currently no individuals within the Waikato region who satisfy the criteria27. As such, these submitters seek amendments to the definition to provide further clarity on the certification process and allow for a sufficient pool of certified persons to be available to the market. NZ Pork request greater flexibility in the definition to cover a range of qualifications and experience.

240. D Fogerty seeks the definition to be amended to ensure that any certified persons are not WRC staff members. J M Reeve requests the definition for CFNA and CFEP to be the same and wants to ensure that existing professional organisation certification lists are used. Forest and Bird support the provision but seek the removal of the term 'entity' within the definition as they consider this could also be interpreted as a company or organisation, which creates uncertainty as to how an entity would demonstrate compliance with the requirements. The submitter also seeks additional requirements related to professional affiliation and demonstrated proficiency to be included within the definition.

C3.5.2.3. Analysis

241. The section 32 report states that approximately 5000 farms in the Waikato and Waipā catchments will require FEPs. Ensuring there is a sufficient number of suitably qualified and experienced CFEPs available to prepare and/or approve FEPs and meet the set timelines is therefore vital to the implementation of PC1. Furthermore, the development of quality FEPs is necessary to ensure that farm businesses can remain viable whilst working towards achieving the water quality objectives of the Vision and Strategy.

242. Officers are also aware that there are discussions at a national level regarding FEPs and CFEP requirements. If these processes develop useful or regulated national criteria, then these are recommended to be adopted (if necessary, within the scope of any submissions lodged). Officers will advise, in the Reply Report, if this is the case and any revised wording.

243. In relation to submissions seeking to include the requirement for CFEPs to hold a certificate of completion in Advanced Sustainable Nutrient Management in New Zealand Agriculture from Massey University, the Officers agree that this would provide further clarity for what constitutes 'advanced training' and ensure that CFEPs are suitably qualified. On this basis, the Officers recommend the inclusion of the Massey University qualification, while still allowing for equivalent qualifications and training to meet the criteria as technical courses are likely to develop in future.

244. In terms of submissions seeking for additional sediment management qualifications to be included, Officers do not consider this is necessary given the existing requirement for sediment management experience within (c) of the definition. It is considered that the current requirement is satisfactory for the purpose of FEP preparation and development alongside the other recommendations set out within this section.

245. For submissions suggesting that the definition is too prescriptive and narrow, the Officers consider the implications of making the definition too vague could potentially undermine the quality of FEPs and therefore the intent and outcomes of PC1. However, minor amendments in the wording of the definition have been recommended such as providing for three years of relevant experience in a range of agricultural and horticultural farm systems without the requirement for CFEPs to have been involved directly in the 'management' of farms during this time.

[26] Hill Country Farmers Group, DairyNZ, NZIPIM
[27] Ata Rangi, Southern Pastures Limited Partnership

246. Officers agree that the inclusion of 'entity' within the definition could create difficulties during the certification process. On this basis, Officers recommend the deletion of this term. Further, similar to CFNAs, the auditing of CFEPs is recommended by Officers as an additional action available to be undertaken by WRC to ensure the CFEPs are practicing in accordance with the appropriate procedures and guidelines. If it is determined that CFEPs are not meeting the required standards following audits by WRC, Officers recommend that the WRC has the ability to revoke that person's certification.

247. In relation to the submission requesting all CFEP positions to be held outside of Council, Officers do not consider this to be relevant to the provision. Furthermore, each farmer will have the opportunity to select a CFEP from the pool listed on the WRC website.

248. The recommended amendments to the definition will ensure that an appropriate balance is struck between qualifications, experience, and the number of planners available to prepare and/or approve FEPs.

C3.5.2.4. Recommendation

249. That the definition of CFEP be amended as follows:

> ***Certified Farm Environment Planner:*** *is a person ~~or entity~~ certified by the Chief Executive Officer of Waikato Regional Council ~~and listed on the Waikato Regional Council website as a Certified Farm Environment Planner~~ and has as a minimum the following qualifications and experience:*
>
> *a. ~~five~~ three years relevant experience in agricultural and horticultural ~~the management of pastoral, horticultural or arable~~ farm systems; and*
>
> *b. a Certificate of Completion in Advanced Sustainable Nutrient Management in New Zealand Agriculture from Massey University or ~~completed~~ an equivalent advanced training or a tertiary qualification in sustainable nutrient management ~~(nitrogen and phosphorus)~~; and*
>
> *c. experience in soil conservation and sediment management;~~.~~*
>
> *and agrees to follow the procedures and guidelines set out by Waikato Regional Council and audits of the Certified Farm Environment Planner's work by Waikato Regional Council show that that the Planner is preparing and/or approving Farm Environment Plans in accordance with the procedures and guidelines.*
> *Note: Certified Farm Environment Planners will be listed on the Waikato Regional Council's website.*

C3.5.3. Definition: Farm Environment Plan/s

C3.5.3.1. Background

250. A FEP is defined under PC1 as:

> ***Farm Environment Plan/s****: For the purposes of Chapter 3.11, means a plan developed in accordance with Schedule 1.*

C3.5.3.2. Submissions

251. In total, three submissions were received on the definition of FEP. One supports the definition, one supports the definition with amendments, and one does not state whether they support or oppose the definition.

252. Forest and Bird support the existing definition subject to amendments to address matters raised in relation to Schedule 1. The submitter seeks to retain the definition.

253. Theland Tahi Farm Group Limited and Wareanga Partnership consider that the concept of BMP/GMP and the most practicable action should be implemented through FEPs. Further, the submitters consider the purpose and content of FEPS should be clear, certain, practical and capable of implementation. As such, they seek a new definition of FEP to be added to ensure that the concepts of BMP/GMP and most practicable action are included. Alternatively, the submitters seek amendments to the existing definition to provide relief of similar effect.

C3.5.3.3. Analysis

254. The Officers note that the submissions on the definition of FEP relate to matters which are addressed elsewhere in the Section 42A report and are not directly relevant to the wording of the definition. Submissions requesting the implementation of BMP/GMP and most practicable action through FEPs are dealt with elsewhere in policies and in recommendations on Schedule 1 of PC1.

255. As such, Officers recommend that the definition is retained without amendment.

C3.5.4. Definition – Five-year rolling average

C3.5.4.1. Background

256. A five-year rolling average is used to assess the loss of N from a property or enterprise against the NRP and to check whether these set limits have been exceeded. This provision allows for annual and/or seasonal variation.

257. Five-year rolling average is defined in PC1 as:

> ***Five-year rolling average:*** *means the average of modelled nitrogen leaching losses predicted by OVERSEER from the most recent 5 years.*

258. As noted in PC1, the definition has been adapted from "*Freeman, M.; (ed). (2016). Using Overseer- Establishing national guidance for the appropriate and consistent use of Overseer by regional councils in setting and managing water quality limits Consultation Draft Overseer Guidance Project, Overseer Management Services Ltd. Wellington, New Zealand".*

259. The provision is referenced directly in a matter of control under Rule 3.11.5.4 and in Schedule 1 of PC1.

C3.5.4.2. Submissions

260. Seven submissions were received on the definition of five-year rolling average. Two support the provision, three support the provision with amendments, and two oppose the provision.

261. Federated Farmers and Forest and Bird support the definition and seek that it is retained. Ravensdown support the definition but suggest that 'predicted' is replaced by 'estimated' to provide further clarification.

262. Fonterra support the definition subject to amendments. The submitter considers that five years of data delays the time of property holders' accountability against their NRP. As such, Fonterra suggest that a three-year rolling average would be sufficient. Fonterra also seek amendments specifying that this average be calculated using the most recent version of Overseer and for losses to be recalculated with version updates.

263. Oji Ltd consider the five-year rolling average to be uncertain and seek that it is deleted.

C3.5.4.3. Analysis

264. Overall, it is noted that the term is no longer recommended to be used in the Officer's recommended PC1 provisions, so the overall recommendation is to delete the definition.

265. In terms of Ravensdown's submission, the Officers' consider that either word will achieve the desired outcome and can be interpreted in the same manner. However, given the use of 'estimated' is more consistent with terminology used within Overseer reports and guidelines, Officers' recommend adopting the term.

266. In relation to Fonterra's submission, the Officers' consider that given ongoing Overseer version changes it would be useful to clarify that the latest version is to be used in any calculations. As such, Officers' recommend amending the definition to this effect and clarifying that it is the five years of Overseer outputs that is averaged, not the inputs. Officers' consider that a five-year rolling average is sufficient to provide a meaningful indication of long-term N loss from all farm systems. On this basis, Officers' do not recommend adopting a shorter timeframe.

267. The recommended amendments to the definition will provide further clarity and ensure that average N loss calculations are consistent across the board while allowing for accurate assessments against NRPs.

C3.5.4.4. Recommendation

268. Officers recommend the definition is deleted if it is not used in the final recommendations.

269. OR

270. If not deleted, Officers recommend the definition of five-year rolling average is amended as follows:

> ***Five-year rolling average:*** *means the average of the five modelled nitrogen leaching losses ~~predicted~~ estimates[28] using the most recent version of[29] OVERSEER over ~~from~~ the most recent 5 years.*

C3.5.5. Definition: Good Management Practice/s

C3.5.5.1. Background

271. GMP is defined under PC1 as:

> ***Good Management Practice/s:*** *For the purposes of Chapter 3.11, means industry agreed and approved practices and actions undertaken on a property or enterprise that reduce or minimise the risk of contaminants entering a water body.*

272. The concept is solely referenced within Policy 3 of PC1, alongside BMP[30], as measures to be implemented within CVP systems in order to achieve a 10% decrease in the diffuse discharge of N and a tailored reduction in the diffuse discharge of P, sediment and microbial pathogens.

C3.5.5.2. Submissions

[28] Ravensdown PC1-10200
[29] Fonterra PC1-10576
[30] Discussed separately within this Section 42A report.

273. Overall, 10 submissions were received on the definition of GMP. Two support the definition, five support the definition with amendments, and three oppose the provision.

274. AFFCO New Zealand Limited support the definition but consider that reference to both GMP and BMP within PC1 suggests that there are differing levels of obligation on resource users to avoid, remedy or mitigate adverse effects. The submitter notes that these terms are also different to the BPO as defined under the RMA. As such, the submitter seeks the definition of GMP to be deleted and replaced with the definition of BPO from the RMA. AFFCO New Zealand Limited are also concerned that there is no guidance material developed by WRC to interpret or explain the intent of the use of these terms.

275. Oji Ltd oppose the definition and also seek that it is deleted and replaced with the BPO as defined by the RMA. The submitter considers the definition to be problematic as there is no indication of the process by which a GMP becomes 'industry agreed or approved'.

276. Federated Farmers support the definition but consider that GMP should not be limited to reducing or minimising the risk of contaminants entering water bodies, as it also includes managing that risk. As such, the submitter requests that the definition is amended as follows:

> *For the purposes of Chapter 3.11, means industry agreed and approved practices and actions undertaken on a property or enterprise that <u>manage,</u> reduce or minimise the risk of contaminants entering a water body.*

277. Ballance suggest that the definition could benefit from a cross-reference to "Industry Agreed Good Management Practices" as set out in the document "Industry-agreed Good Management Practices relating to water quality (2015)" and seek relief to that effect.

278. J M Reeve notes that the definitions of BMP and GMP appear to overlap. As such, the submitter seeks amendments for both provisions to combine them into a single definition. FANZ oppose the provision based on concerns that PC1 is introducing a chapter-specific definition for a generic term which is widely used. The submitter considers that there should be national consistency in the use of the terms and notes that GMP is not only about maximum mitigation for contaminant losses.

279. HortNZ seek that the definition is retained, supporting the use of separate definitions for GMP and BMP as they represent different methods within the horticulture sector. Forest and Bird support the provision but propose that WRC perform an audit on whether industry promoted GMPs are appropriate and identify these within a new schedule in PC1. Forest and Bird consider that GMP should be a requirement for all landowners. The submitter also considers that GMP is not clearly or properly defined under PC1 and there is currently no requirement for landowners to work towards GMP.

C3.5.5.3. Analysis

280. As discussed in previous sections of this s42A report, Officers consider that there should be a shift towards a GFP framework within PC1 in place of the existing GMP terminology. GFP recognises that what is "good" will change over time and allows for continuous improvement and flexibility. The concept of GFP is increasingly recognised in different regions and at the national level.

281. Officers therefore do not agree with submissions seeking to reference the "Industry-agreed Good Management Practices relating to water quality (2015)" document within the definition as it restricts the ability for practices to change and improve over time. Adopting the GFP approach

will also ensure greater consistency at a national level. This addresses FANZ's concerns of a chapter-specific definition of GMP within PC1.

282. As covered in previous sections of the s42A report, Officers consider the concept of GFP is preferred to BPO. Therefore, Officers do not agree with the submissions seeking to amend or remove the existing definition in favour of a BPO approach.

283. In terms of Federated Farmers' submission, Officer's agree that further clarification could be provided in the definition to also include the management of risks. Officers' share similar concerns to Oji Ltd in that the inclusion of 'industry-agreed or approved' as currently worded is problematic as it effectively restricts the approval of on-farm mitigation measures and decision making to industry alone. As such, Officers recommend that this reference is deleted.

284. In relation to Forest and Bird's submission, Officers consider these matters are addressed in the recommendations for Schedule 1 within this s42A report.

C3.5.5.4. Recommendation

285. That the definition of Good Management Practice/s is amended as follows:

> **Good ~~Management~~ Farming Practice/s:** For the purposes of Chapter 3.11, means ~~industry agreed and approved~~ practices and actions undertaken on a property or enterprise that manage, reduce ~~or~~ and minimise the risk of contaminants entering a water body.

Recommendation on submissions:

1. Accept all those submissions that supported the plan provisions which are recommended to remain unchanged or largely unchanged

2. Reject those submissions who sought the deletion of the Plan Provisions which are recommended to remain unchanged or largely unchanged

3. Accept, or accept to the extent, those submissions that sought the changes recommended as set out in the revised plan provisions

4. Reject, or reject to the extent, those submissions that do not support the changes recommended as set out in the revised plan provisions

Proposed Revisions to Schedule 1 to incorporate Good Farming Practice into Farm Environment Plans

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Contents

1 Introduction

The HRWO Implementation project team are tasked with implementing Proposed Plan Change 1 (PPC1). A previous report[1] commissioned by the implementation team ("the GFP report") proposed a conceptual approach that would amend PPC1 to explicitly promote the concept of Good Farming Practice (GFP) as a way of achieving the behaviour change on farm necessary to reduce contaminant loss and achieve the objectives of PPC1. That report identified that changes to PPC1 would be required to enable the adoption of GFP, including a revision of schedule 1.

The first part of this report sets out a revised schedule 1 to the PPC1 that would enable the conceptual approach outlined in the GFP report. The revised schedule is intended to enable the minimum requirements of PC1 and the GFP approach to be incorporated into the FEP.

Schedule 1 forms just part of the regulatory system needed achieve the objectives of PC1. Therefore, the second part of this report provides more detail regarding the conceptual approach outlined in the GFP memo, and about how the schedule could be implemented. While much of that implementation information relates to consenting, compliance and supporting activities that don't need to be specified in the plan change document, the information is helpful to assist with the critical assessment of the merits of the attached revised schedule 1.

2 Part 1 – Revisions to schedule 1

2.1 Schedule 1 as notified

The notified schedule 1 adopts a process-based regulatory approach for a farmer to follow to develop an FEP. The process requires a farmer to undertake a risk assessment, which as a minimum must describe their management approach to stock exclusion, setbacks and riparian management, critical source areas, land use and grazing management, nutrient management and cultivation management. It then goes on to require farmers to create a spatial risk map to locate both risks and proposed actions, and finally requires farmers to describe the actions they will take in response to the risks identified.

The implementation team is concerned that the approach in the notified schedule 1 approach has implications which create significant implementability challenges, and which reduce the likelihood of achieving the policy objectives. These include:

1. A focus on the process (as opposed to the outcome) may inadvertently create the perception that the objective is the creation of an FEP rather than adoption of mitigation actions and practices.
2. The schedule infers a "one-off" process, so does not provide for iterative review and improvement over time.
3. The absence of any specified outcomes or objectives for the FEP may lead to pressure for CFEPs to approve the "minimum actions possible" simply to satisfy the requirements of the process.
4. The specificity of the risk assessment process may constrain consideration of other risks not included in the schedule.
5. The focus on the process for defining and approving the initial required actions creates uncertainty about how those actions can be changed in future.

[1] Good Farming Practice as an approach to reducing contaminant losses from farms in the Waikato and Waipa Catchment Under PPC1. Block 2 Section 42A report, pages 61- 66.

6. The wording of the schedule infers a preference for one-off infrastructural actions (e.g. riparian fences, detention bunds, effluent systems) over ongoing management actions (e.g. changes to farm systems, grazing management or fertiliser regimes).
7. The improvement of water quality is reliant on the current schedule 1 resulting in a list of actions which must be completed. The completion of these actions would be the point of compliance, and therefore non-completion of a particular action would constitute an offence. Relying on the action as the point of compliance creates the need for a rigorous change management process to authorise any changes to these actions. The section 127 change to consent application process would have to be used, which introduces considerable cost and bureaucracy to ensure that any changes to actions are appropriate.

2.2 Revised approach

A revised schedule 1 has been included in Appendix 1 of this report. The revised schedule takes an outcome-based and principle-based approach to FEPs. This revised approach is considered inherently more flexible and more able to be implemented using the "expert advisor" role of the Certified Farm Environment Planners enabled by the plan. Arguably, the approach better empowers land-owners to operate and respond to changing circumstances over time, in a way that focuses on the achievement of a desired result, as opposed to simply ticking off a fixed set of actions.

This approach aligns closely with the approach adopted by Environment Canterbury for developing and assessing achievement of Farm Environment Plans, with some amendments in response to learnings obtained from Canterbury, and to reflect the differences in policy approaches and objectives in PC1.

There are a number of benefits of adopting the similar approach to ECAN. Reducing the effect of farming on water quality is a national issue, and the use of farm environment plans is increasingly being seen as a central element of the solution. A recurrent criticism of regional plans is that every region's rules are different. If FEPs are to be at least a part of the solution nationally, then it makes sense to pursue as much national consistency as possible. Collectively, the Waikato and Canterbury regions have largest and second largest number of dairy cows[2] in NZ, and the combined number of herds in these two regions is approaching half the total of herds nationally. It makes pragmatic sense to try and make the Waikato approach and the Canterbury approach as similar as possible.

Adopting a similar approach to ECAN may also aid with implementation capacity. There are a number of businesses that have developed knowledge, systems and experience for preparing and reviewing FEPs under the Canterbury FEP framework. This institutional capital may reduce barriers to entry for those companies to expand their services to the Waikato, or enter into partnerships with Waikato based organisations, making the roll out of the FEP delivery in the Waikato more effective, and faster.

2.2.1 Overview of FEP approach using the revised schedule.

This section gives a high-level overview of how the revised schedule 1 could be used to deliver the behaviour change on farm sought by PC1 to reduce losses of contaminants to water. More detail about each of the implementation phases is included in Part 2 of this report. This overview is broadly consistent

[2] Dairy Statistics 2017/18 https://www.lic.co.nz/about/dairy-statistics/

with the approach outlined in the earlier GFP memo, but with more detail, and uses slightly different language to reflect the changes made to the revised schedule.

Schedule 1 (as revised) creates an obligation for farmers to farm in accordance with 6 objectives, with one high level overarching objective related to the whole farm, and a further five objectives each related to a specific area of farm management. Collectively these 6 objectives apply to the management areas of the farm that contribute the four contaminants PC1 seeks to manage.

Each objective is supported by one or more principles. The principles give guidance about how the objection is to be met. Principles 1 -21 either reflect verbatim or are slightly amended versions of the principles set out in the Good Farming Action Plan for water quality 2018[3]. The amendments were considered necessary to reflect the objectives of PC1, and/ or for clarity in a PC1 context. Principles 22 and 23 are specific to PC1 and were derived to implement minimum requirements of the policy framework of PC1.

The schedule requires farmers to create an FEP that:

1. Assesses their farming operation against each of the objectives and principles
2. Records and commits to continuing the actions and practices that are already undertaken that are consistent with the objectives and principles
3. Identifies actions and practices that need to be changed or adopted in order to be consistent with the objectives and principles.

An overview of the FEP process is as follows:

1. Farmers would be required to create an FEP showing how they will farm in accordance with the objectives and principles of the schedule.
2. The FEP must be reviewed by a CFEP who would assess whether the approaches to farming set out in the FEP are consistent with the objectives and principles of the schedule.
3. The CFEP would undertake the review guided by a review manual developed by the Council.
4. If the CFEP has any less than a high level of confidence that the FEP was consistent with the objectives and principles of the schedule, the CFEP would identify the actions and practices that would be necessary to give the CFEP a high level of confidence in the consistency of the FEP with the objectives and principles of the schedule.
5. The resource consent for using land for farming would include conditions requiring that the farmer maintain an FEP that shows how they will farm in manner consistent with the objectives and principles of Schedule 1 and requiring that they follow their FEP.
6. Farmers would be required to have their FEP reviewed by a CFEP within 12 months of their consent being granted.
7. The CFEP would undertake the review guided by a review manual developed by the Council.
8. The reviewer will assign a level of confidence (LOC) rating that farming activities are consistent with each objective and each principle (Appendix 3, Table 2).

[3] Good Farming Practice Action Plan for Water Quality 2018, http://www.fedfarm.org.nz/FFPublic/Policy2/National/Good_Farming_Practice-Action_Plan_for_Water_Quality_2018.aspx

a. A LOC rating is an expert opinion, based on all information available to the CFEP, which includes records and documents from the farmer, explanations from the farmer, and observations on the farm. It is a "balance of probabilities" decision.
b. The Objective LOC rating is derived from the principle LOC rating (Appendix 3, Table 3).

9. The CFEP would assign a grade for the farm's performance against the objectives and principles, based on the LOC ratings for each objective. The grades would range from A to D (Appendix 3 Table 4)
10. FEPs would need to be reviewed at frequencies based on the grade assigned to the previous review, with A grades resulting in 3 yearly reviews, B grades – 2 yearly, C grades yearly, and D grades needing to be reviewed every six months.
11. The resource consent authorising the farming land use would include a condition requiring that the exercise of the consent be maintained with a grade of A or B.
12. Consent holders earning the recognition of an A or B grade would not be the subject of routine Council compliance monitoring but could be monitored as part of the Councils monitoring of CFEP performance.
13. Consent holders receiving a C or D grade would be subject to "required actions" set out by the reviewer necessary to achieve an A or B grade, and annual or biannual reviews.
14. The Council would retain the ability (through a S128 review condition of consent) to review the conditions holder of any farm that scores a D grade. The D grade shows that the CFEP has a low level of confidence that the farmer is farming in accordance with one or more of the objectives of the FEP.
15. The review clause would give the Council the opportunity to apply directive conditions to the farming activity that has demonstrate a lack of capability or willingness to farm in accordance with the objectives and principles of Schedule 1.

2.2.2 Limitations of FEPs and GFP

The proposed revised schedule is part of a regulatory system developed to ensure the objectives of PC1 will be achieved. The appropriateness of the revised schedule is dependent on some other parts of PC1, and any changes to those elements of PC1 have the potential to undermine the effectiveness of the proposed revised schedule and FEP approach.

Good farming practice is only an appropriate yardstick for FEP planning provided the existing PC1 constraints on intensification remain. Adherence to good farming practice will not prevent increases in contaminant losses associated with intensification of landuse, resulting either from changes from one landuse to another or from increases in intensity within a given landuse. GFP should not therefore be seen as an alternative to the landuse change controls set out in rule 3.11.5.7 or to the nitrogen loss restrictions of schedule B.

The FEP approach proposed in the revised schedule is based around independent FEP review using an "expert judgement" approach. This approach has been deliberately recommended in order to enable compliance market segmentation, which is a risk-based compliance concept. The risk-based approach to compliance recognises that a regulator will always have limited compliance resources, and that to be most effective at reducing environmental harm arising from non-compliance, the regulator is best advised to focus their compliance resources on the highest risk parties. By using CFEPs to undertake reviews of every FEP, the regulator can partition regulated parties according to their performance and can focus its limited

resources on the poorest performers, leaving the better performers with minimal regulatory invention, provided they continue to perform.

The expert judgement review approach allows pragmatic expert judgement to be applied to considering whether a farmer is farming in a manner consistent with PC1 and GFP, and therefore provides the flexibility for farmers to adopt different ways of achieving the same objectives. It also encourages innovation, as farmers who find more efficient ways of farming with reduced losses can be recognised through the review process. Over time, as what is now considered good farming practice becomes "the normal way of doing things", and as "poor" farming practices become less common, the cultural norms of what is considered good farming is expected to shift, creating a trajectory of improvement.

However, the flexibility and pragmatism of the expert judgement review approach creates challenges for enforceability. While it is hoped that the adoption of FEPs and regular reviews by CFEPs will result in widespread adoption of GFP, it is inevitable that some farmers will not be able or willing to change their farming systems to align with GFP. This is not a reason to reject the schedule 1 objective and principle approach which is expected to enable behaviour change with the majority of farmers. Instead, it is proposed that farmers who consistently fail to demonstrate that their farming activities are consistent with the schedule should be subject to more onerous and directive regulatory requirements. As noted earlier, the Council proposes, where appropriate, the imposition of a more stringent regime through a s128 review of conditions. This would make the use of enforcement options much simpler, as it would involves clear non-compliance with a consent condition. Enabling this ability to apply a more stringent regulatory requirement in response to poor CFEP review grades would, of course, require a consented, rather than a "permitted activity", regime.

3 Part 2 – Conceptual approach to implementation

3.1 Background

Proposed Plan Change 1 (PPC1) to the Waikato Regional Plan seeks to improve water quality in the Waikato and Waipa Rivers by reducing the losses of sediment, faecal pathogens, nitrogen and phosphorus from agricultural land uses within the catchment. The achievement of the long-term water quality objectives is to be staged over 80 years. However, as a first step, PPC1 seeks to reduce loads of these four contaminants by at least 10% of the gap between current water quality and the 80-year target water quality, over the first 10-year period.

PPC1 proposes to achieve the reduced load of the four contaminants by:

1. Restricting the conversion of land to land uses that tend to be associated with higher losses.
2. Requiring some farms to reduce their nitrogen losses while restricting the remaining farms from increasing the nitrogen losses.
3. Requiring existing farms to implement actions known to reduce contaminant losses.

PPC1 achieves points 2 and 3 by requiring the majority of farmers in the Waikato and Waipa Catchments to produce a property scale farm environment plan (FEP) that identifies the various sources of the four contaminants on the farm, and to implement a tailored set of mitigation actions and management practices necessary that will reduce contaminant losses from that particular farm.

Although there is a wide range of practices on farm, and it is acknowledged that some farmers operate at good farming practice already, there is an implicit assumption within PPC1 that, viewed as a whole across the catchment:

1. Some farmers currently farm in a way that exacerbates contaminant loss; and
2. getting farmers to farm differently will reduce contaminant loss.

Achieving the water quality objectives of PPC1 is therefore about getting farmers to farm differently. Getting farmers to farm differently relies on implementing an effective change management process on more than 5000 farms in the Waikato and Waipa catchment, not just ensuring those farms prepare an FEP document. Getting more than 5000 farmers to farm differently, some substantially so, will not be achieved simply by writing a rule in a regional plan, or by preparing an individual plan for every farmer. It will require specific analysis of each farm business, an understanding of the farmers' values, objectives and priorities, and the development of tailored advice for that farmer as the best way to reduce contaminant losses on their property. It will require farmers to develop an understanding of how contaminants are lost, and to use that knowledge to influence the daily decisions that they make.

Not everyone will get it right the first time, so getting it right will require iterative improvement, and ongoing review. Getting it right will take some trial and error, and therefore requires an accommodating system that enables farmers to learn from their mistakes and adjust practices accordingly. The successful achievement of this change management process will take time, will require buy-in and support from industry sector groups, as well as from individual farmers. The success of the FEP process relies on regulators, industry, and farmers working together to redefine the sectors' own image of good farming practice.

The fact PPC1 proposes a regulatory approach to managing losses of the four contaminants means there is an expectation that there will be accountability for those farmers who don't make the changes required in the expected timeframe.

The challenge for the FEP process therefore is to effectively enable the development and implementation of a tailored set of actions, practices and requirements for each farm in the catchment, to ensure these actions are implemented in a timely fashion. All this needs to be done through a system that allows innovation and flexibility, but that also provides accountability for those who do not adopt the required change.

3.2 Purpose of FEPs

The purpose of the FEP process in PPC1 is to help farmers define and implement a tailored set of mitigation actions and management practices on their farm that are necessary to reduce the losses of the nitrogen, phosphorus, sediment and faecal pathogens from that farm to the Waikato and Waipa River.

The objective of the FEP is not simply the creation of a plan, which is at risk of being filed in the top draw and forgotten. The expectation is that the FEP process will result in changes to current practice where necessary to reduce contaminant losses from the farm.

The success of this approach will be reliant on:

1. The farmer (and probably ideally farm staff) being actively involved in the FEP development;
2. The farmer having access to expert knowledge and advice;
3. The FEP being improved iteratively over time as the farmer builds their knowledge and capability;
4. Regular reviewing of the FEP and the actions undertaken to give the farmer feedback and to give the public confidence that action is occurring;
5. The Council making use of appropriate regulatory tools to encourage change to happen at an acceptable rate.

The objective of the FEP process outlined below is to assist the farmer to create a specific set of practical actions and mitigations that the farmer can undertake which will reduce avoidable losses of the four contaminants from their farm.

The Council proposes that the overall FEP process could follow the following steps:

1. An initial baselining of current farm practice against recognised good practice and plan requirements,
2. The development of a list of required actions to address any issues where current practice is not consistent with agreed good practice, or plan requirements are not being met.
3. Lodging the FEP with an application for a resource consent to authorise the farming activity.
4. Periodic Independent reviews of the FEP to
    a. Compare actual farm practice with recognised good practice
    b. Verify that contaminant loss risks previously identified in the FEP have been effectively mitigated.
    c. Provide an opportunity to review the FEP in order to continue to reduce losses iteratively over time.

These steps are outlined in more detail in Section 3.4 below

3.3 Good Farming Practice Principles and FEPs

PC1 proposes to reduce contaminant loss by requiring farmers to adopt "good" farming practices that will result in reduced contaminant losses along with meeting specific requirements around N loss and stock exclusion. However, the existing schedule 1 of the notified version of PPC1 is largely silent about what "good" is. How much mitigation is enough? The existing schedule 1 currently leaves farmers and certified farm environment planners to largely make their own judgement about what does or doesn't need to be done on farm. This approach has the potential to lead to considerable inconsistency between planners, and to create pressure on planners to approve "the minimum possible" set of mitigations. Such a situation would undermine the delivery of the objectives of PPC1 within the desired timeframes.

There is wide acceptance that defining farming practices to improve water quality is not a one size fits all approach. It is not possible to define a standard set of farming practices that will suit every farming situation, as farms vary widely according to the farm system, the landform, the local climate and a myriad of other factors.

Nationally there has been work undertaken between sectors to gain agreement on a more consistent way of defining what good farming practice looks like. In 2018, the Good Farm Practice Action Plan for Water Quality was released, a collaboration between the agricultural and horticultural sectors, Central Government and Regional Government. Rather than trying to define specific practices, the GFP Action plan takes a principle-based approach, defining 21 principles which all the parties agree represent good farming practice (GFP) for water quality.

The 2018 Good Farming Practice Principles are a refreshed and revised interpretation of the 2015 Industry-Agreed Good Management Practices relating to water quality that were developed as part of the plan development process in Canterbury. The 2015 Industry Agreed GMPs have been the starting point for Environment Canterbury's FEP rules. The Waikato Regional Council Healthy Rivers implementation project team has looked closely at Environment Canterbury's FEP roll out and rule framework and considers there are advantages in aligning its FEP delivery with a similar approach followed by Environment Canterbury.

This document aims to describe how the FEP process under PPC1 could incorporate the good farming practice principles outlined in the 2018 Action Plan for water quality as a way of defining a baseline for what good farming practices are intended to achieve[4], and any additional requirements (such PC1 obligations around for example stream fencing or N loss) over and above GFP.

3.4 A conceptual FEP process

The objective of the FEP process is to clearly identify the actions needed to ensure a particular farm is operating in accordance with nationally agreed good farming practice principles, and the requirements of plan change 1.

A farmer will have a range of options to prepare their farm environment plan. These options range from preparing the FEP completely themselves, participating in an industry support programme (such as the Beef and Lamb NZ Land Environment Plan workshop series), through to engaging a CFEP to assist the

[4] The role of GFP in implementing farm environment plans under PPC1 is discussed in Section 1.3 of the block 2 S42A report to the PPC1 hearings.

farmer from start to finish through the process. In all cases, the final plan would need to be reviewed by a CFEP as being consistent with the objective and principles of schedule 1.

The Council will require that the completed and reviewed FEP would be submitted to Council electronically, through either a CFEP providers own system, or by using the Councils online portal. The FEP content would need to conform with Council defined data standards and data formats to be accepted. This is to enable the Council to undertake data analysis at different scales (such as farm, sub-catchment, and FMU scale) for plan effectiveness monitoring and future planning. Updates or changes to the FEP would be submitted in the same way.

The overall process for preparing an FEP is set out in the following sections.

3.4.1 The baseline review within the FEP

The aim of the baseline review is to compare the current farm practices with each of the objectives and principles in schedule 1. The baseline review would be to identify where the current farm practices are inconsistent with the objectives and principles of schedule 1 and enable the FEP to identify the actions and practices required for the farm to operate in a manner consistent with the objectives and principles. The baseline review is effectively a "current state" assessment against the objectives and principles, undertaken by an independent professionally certified farm environment planner (CFEP)

The CFEP undertaking the baseline review will assign a "level of confidence" (LOC) rating to describe the CFEPs confidence that farming on the property is being undertaken in a manner consistent with each of the objectives and principles (where those objectives and principles are relevant to the farming system). The CFEP would base their view on both the farmers ability to describe the way in which their farming system is consistent with the principles, and on the farmers ability to produce verifiable records that show that they do what they describe. Records may include documentary records (such as receipts, transport records, or statements), but could also include observations of the CFEP from farm walks (such as the presence of stream fencing or silt traps for example).

For each principle, the CFEP would assign the level of confidence ratings set out in Appendix 3, using the same process as set out in the review process described in section 3.4.5. The confidence ratings assigned by the CFEP would be either a high, medium or low level of confidence for each principle, or N/A if the principle is not applicable to the farming system (e.g. principles 16, 17, 18 and 19 relate to dairy effluent, and would not be relevant to drystock farms, while principles 20 and 21 relate to water irrigation, and would not be relevant to un-irrigated farms). Example criteria for how LOCs would be assigned to principles is reproduced in Table 2 of appendix 3.

The objective LOC ratings would be assigned based on a broad overall judgement, taking account of the LOC ratings for each principle under the objective. The criteria for establishing an objective LOC grading are recorded in

Table 3 in Appendix 3.

In practice, the baseline review would require a farm to record the practices and actions it undertakes to achieve each of the GFP principles and assess whether they need to do more. The Council will develop an FEP review guide, which will guide CFEP as to how to undertake the baseline review. This guidance would include information and examples about the different actions and principles that different types of farms

might undertake that would be consistent with each principle[5]. However, the decision on whether an individual farmers actions are enough to be consistent with the GFP principle would ultimately be for the CFEP, subject to the CFEP quality control expectations (see below).

3.4.2 Identification of required actions and practices within the FEP

Where the CFEP is not able to assign a "high" LOC that current practices are consistent an objective or principle during a review, the CFEP would identify the mitigation actions and changes to farm management practices or system that need to be adopted to bring farm practice into line with the objective or principles, along with time bound required actions for implementing the practices or completing the actions. Experience from Canterbury suggests that the FEPs of farms that are closer to GFP generally tend to be more focused on practices and farm management, while farms that are further from GFP tend to have action plans more focused on mitigation actions, and infrastructural change.

It is anticipated that the farmer and the CFEP would work together on defining the FEP. However, the CFEP would need to have confidence that the FEP, in their professional opinion, is sufficient to give them a high level of confidence that the farming is consistent with the objectives and principles in the schedule. The CFEP would be bound by professional standards and the Council's FEP review guide as part of their certification.

3.4.3 Nitrogen Management in the FEP

PPC1 proposes to reduce nitrogen losses in the catchment by "capping" property nitrogen losses using the NRP and requiring the 25% highest emitters to reduce to the 75%ile loss level. A key question is whether the GFP principles set out in the Action Plan for Water Quality (2018) are sufficiently robust to achieve the nitrogen cap and 75%ile reduction requirements of PPC1 alone or are additional controls required?

The 5 GFPs related to nutrient management (as listed in the 2018 Good Farming Action plan) are as follows:

4. Monitor soil phosphorus levels and maintain them at or below the agronomic optimum for the farm system
5. Manage the amount and timing of fertiliser inputs, taking account of all sources of nutrients, to match plant requirements and minimise risk of losses.
6. Store and load fertiliser to minimise risk of spillage, leaching and loss into water bodies
7. Ensure equipment for spreading fertilisers is well maintained and calibrated.
8. Store, transport and distribute feed to minimise wastage, leachate and soil damage.

The nutrient GFP principles promote the *efficient* use of nutrient inputs, and promote practices to minimise avoidable losses, but the principles themselves don't provide any limits or restrictions on overall N losses.

The requirement to adhere to GFPs alone to manage N loss within FEPs will not be enough to achieve the policy objectives to reduce catchment wide N loss because GFPs will not prevent increased losses of N

[5] For example, to achieve principle 4 related to monitoring phosphorus, the guidance would include advice about the frequency, timing and comprehensiveness of different phosphorus monitoring approaches, and information about agronomic optimums for different soils and different farming systems.

from intensification. The application of GFP objectives and principles are not an alternative to landuse change rules or the NRP and the 75%ile approach proposed in PC1.

However, in part the use of the GFP approach and limits (such as the NRP) may help resolve some concerns raised by submitters about grandparenting rewarding inefficient high emitters. Under the proposed revised schedule 1, farmers would need to adhere to their NRP/achieve the 75%ile **and** operate according to GFP principle 5 (e.g. efficiently). Farmers that received a high NRP as a result of poor practice would likely find that they could only satisfy the GFP principle of efficient use of nutrients by operating at an N loss of less than their NRP.

Overseer

There are three broad possible regulatory approaches to manage N loss – manage using measured losses, manage using modelled losses, or manage the inputs that influence the losses. PPC1 as notified proposed to use the model Overseer to both baseline initial losses, and then to either restrict future losses from increasing, or require baseline losses to be reduced (for the highest N emitters).

There has been debate for some time about the suitability of Overseer for use in regulatory framework. Whether Overseer is useful depends on how Overseer is used, and the level of certainty required when making a particular decision using information from Overseer. From an implementation perspective, Overseer is perfectly useful in a regulatory framework to draw conclusions "on the balance of probabilities", but not sufficiently certain to draw conclusions "beyond a reasonable doubt". This means that Overseer can be a useful tool to conclude that a farm is either likely or not likely to be complying with their nitrogen obligation. However, Overseer would not give the Council sufficiently robust evidence to allow the Council to allege the farm had committed an offence by not complying with their nitrogen obligation, or to take enforcement action in response.

Input controls (such as limits on cow numbers, stocking rates, fertiliser or feed inputs), are inherently more certain, and therefore more enforceable. Although still not simple, it is easier to draw beyond reasonable doubt conclusions based on whether cow number, fertiliser, or feed input limits have been exceeded. However, input controls are likely to be a cumbersome and inflexible control approach to implement across in excess of 5000 farms in the Waikato and Waipa Catchment. Specified input limits in consent conditions are more likely to require s127 changes to consents, conceivably with some frequency, adding cost and bureaucracy to the farm business. There would also be a considerable administrative burden to Council

A combined approach of enabling the use of both the Overseer Model and/or input controls, depending on the circumstances, may provide a workable solution. This approach could provide the flexibility required by most farmers to manage their farm businesses, but also the regulatory certainty that poorly performing farmers can be held accountable for their N losses. This approach would involve enabling the use of the flexible "balance of probabilities" approach for all farmers, but revert to a more directive and enforceable approach in situations where farmers cannot, after reasonable support and time to improve, satisfy a CFEP that their farming is consistent with the schedule 1 objectives and principles.

NRP

The revised schedule 1 proposes to enable the NRP concept in PC1 by requiring all FEPs to include an objective and a principle specifically related to the NRP (Objective 3, and principle 22)

There are different approaches that a farmer could use to demonstrate they are operating consistently with the FEP nitrogen objective and NRP principle. In some cases, a CFEP may not be able to have a high level of confidence that farm is consistent with the NRP unless Overseer is used to model the farm system. In this situation, the adherence may be demonstrated using an annual Overseer report (calculated by a certified Farm Nutrient Advisor). However, in other cases, such as a less intensive drystock farm, a CFEP may be highly confident that the NRP has been exceeded simply by looking at over stocking rate of the farm compared to its reference period stocking rate. In this case, it may be more appropriate for the farmer to demonstrate their adherence to the NRP using a limited range of prescribed input controls. The CFEP would be able to guide the farmer as to what method is most suitable and appropriate to give them confidence that the objective and principle is being complied with.

If the CFEP has a low level of confidence that the nitrogen objective and NRP principle was being adhered to, this would result in a D grade, and which would result in the CFEP defining actions that need to be taken to increase their confidence. The D grade would also trigger the need for another review of the FEP within 6 months, to reassess performance against the FEP.

The allocation of a D grade would also trigger a review clause in the consent conditions, enabling the Council to consider whether it was appropriate to review the consent, and to impose more prescriptive consent conditions, such as controls on the farm management activities that are used as inputs to Overseer. It is anticipated a consent review would only be undertaken where the Council was satisfied that less intrusive approaches were unlikely to result in the required behaviour change.

The response to the various FEP grades is discussed in section 3.5 below.

75%ile Approach

Conceptually, PPC1 currently proposes to define the numeric value which, for each FMU, is the 75%ile of all dairy farm NRPs, and then require farms which have an NRP greater than the 75%ile numeric value to implement whatever changes are necessary to their farm management systems to reduce their annual Overseer estimate of N loss so it does not exceed the 75%ile numeric value.

A number of recent reviews of Overseer as a regulatory tool have recommended that an Overseer-derived numeric value should not be used as a threshold for differing regulatory obligations. The current 75%ile provisions in PC1 are a case in point. An individual farm's NRP could conceivably be below the 75%ile in one version of the model (with a regulatory obligation not to increase farm N losses), but then be above the 75%ile (with a regulatory obligation to reduce farm N losses), or vice versa, solely as a result of a version change in in Overseer, without the farm changing any farm practices that would affect N loss.

One approach that could resolve this issue would be to use the 75%ile approach as a drafting gate to baseline farms into one of two N management pathways, based on nitrogen emissions during the reference period. In this approach, farms below the 75%ile value would be classified as "maintain N-loss" farms, while farms over the 75%ile would be classified as "reduce N loss" farms, based on a one-off assessment against the NRP.

While this approach would remove the potential for farms to move in and out of different regulatory obligations based only on Overseer version changes, the question remains as to how to determine when the farms initially classified as "reduce N loss" farms have done enough to reach the 75%ile, if a numeric value can't be used as a yard-stick.

In the absence of an available alternative method for measuring N loss, or resolving the Overseer version issues above, one approach might be to require those farms that are in the "reduce N loss" pathway to also undertake some scenario analysis in Overseer after all the NRPs were received, and the 75%ile numeric value for each FMU had been published The aim of the scenario analysis would be to define a set of input parameters that would achieve the 75%ile numeric value. These input parameters would then be used as the point of compliance for the N loss reduction. When the farm had achieved the input parameters that related to the scenario in Overseer that achieved the 75%ile numeric value, then the farm would be considered to have achieved the requirement to reduce N loss to the 75%ile. Adherence to this 75%ile principle would be assessed in the same way as described in the NRP section above and expanded on in the FEP Review section below.

It is acknowledged that this approach is complex. There would still be challenges around managing version changes between the time the NRP was calculated and when the 75%ile number was published. The implementation of the 75%ile reduction target remains somewhat problematic.

3.4.4 The Consent Process

The consent process followed would depend on activity status of the relevant rule in PPC1. The process produced here outlines the expected process for a Controlled Activity consent (which, in accordance with rule 3.11.5.2A as proposed in the Block 2 Track Change version of PPC1, would apply to farming which is proposed to operate within the NRP or to reduce to the 75%ile, whichever is applicable).

The farmer would submit their consent application, along with the reviewed FEP produced in accordance with schedule 1. The Consent officer would process the consent, according to the activity status in the PPC1 rule framework.

Consents that are granted would be subject to conditions.

Indicative resource consent conditions would be likely to include:

1. A specified NRP value (or target input parameter values if over the 75%ile)
2. A requirement to include a specific objective and target in the FEP setting out their N loss obligations on the property, and how the farmer will demonstrate they are complying with those N loss obligations. (E.g. as previously, either using Overseer, or input controls)
3. A requirement to maintain a current FEP, and to farm in accordance with the FEP
4. A requirement to have the FEP reviewed by a CFEP in accordance with specified timeframes.
5. A condition allowing the consent to be reviewed to include input or other specific controls in the consent in the event of a D grade being assigned following review of the FEP.

The matters of control in rule 3.11.5.2A provide wide opportunity for other, specific requirements to be imposed if required.

3.4.5 FEP reviews

The Council proposes to enable CFEPs to review FEPs at regular intervals, to be determined by past performance. There would be multiple purposes for the review:

1. To independently assess on-farm practice against the objectives and principles related to good farming practice and PC1 requirements;
2. To capture information about the change in on-farm practices over time, which will inform future plan changes, and catchment scale modelling;
3. To inform the Councils broad plan effectiveness monitoring;
4. To target the Council's compliance activities to the properties with the poorest performance and greatest potential risk.

Who would undertake the reviews and when?

Reviews would be undertaken by a certified farm environment planner (CFEP) who has training in auditing. If the farmer was relying on Overseer to demonstrate their adherence to their N loss obligation, the CFEP must also be a Certified Farm Nutrient Advisor (CFNA). It is unclear whether the farm professionals who would seek certification as CFEPs would also have the necessary skills to be effective reviewers. An alternative model was considered which separated the CFEP and Review functions, by creating a separate certification system for reviewers, but was rejected. While the approach may potentially add rigour to the review process, it also adds another certification process, which adds cost and bureaucracy, which will end up adding to the overall cost for farmers. It also dilutes the pool of rural professionals available to be CFEPs.

CFEPs' conflicts of interest would need to be managed for review quality control and credibility. The Council considered whether it should adopt the same approach that ECAN uses, where the reviewer (termed an auditor in Canterbury) must be independent of the farm being assesses and must not be a professional advisor for the property. However, there are considerable advantages of a CFEP working with a farmer over time and building trust with the farmer over time is considered likely to result in greater acceptance of the CFEPs guidance. On balance it is considered that the conflict of interest issues could be managed by requiring declarations as part of each FEP the CFEP is engaged with.

After the baseline review of the FEP prior to lodging the consent, an FEP would be required to have a further review within 12 months of the resource consent being granted. This review would result in a FEP grade being issued.

After the 12-month review, the farmer would be required to ensure the next review occurs with a time frame that is dependent on the grade that was given at the previous review. Proposed timeframes for reviews are set out in Table 1 below.

Table 1 Frequency of FEP reviews

Previous Review Grade	Interval to next review
A	3 years
B	2 years
C	1 year
D	6 months

These review timeframes would apply except for certain circumstances where a more frequent review of the FEP would be appropriate such as when there is a change in farm personnel responsible for implementing the FEP, or if the farm was sold, in which case a review would be required within 1 year. The Council would also want the ability to require a review of the FEP at any time, such as may be necessary in response to an incident or allegation of non-compliance related to the property.

The FEP review process

The Council has indicated it will develop a detailed FEP review manual to guide the CFEPs through the review process and maintain consistency among reviewers.

Conceptually, the review would consist of the following steps:

1. The farmer to be reviewed would provide the CFEP with the records and documents relevant to demonstrating adherence to the objectives and principles for the CFEP to review and become familiar with prior to undertaking the FEP review. This might include a self-assessment checklist that the farmer works through prior to the review.
2. The CFEP would visit the farm, and work through the review process with the farmer. The review would assess each objective and principle and require the farmer's explanation of how they farm in accordance with each objective and principle.
3. The CFEP would assign a Level of Confidence (LOC) rating against each objective and principle, based on the combination of the explanation from the farmer, and an assessment of relevant records that supports the farmer's explanation. The LOC would include consideration of whether actions and practices required by a previous review (or equivalent) had been completed.
4. The CFEP would record the reasons for the LOC rating for each objective and principle, and the evidence they relied upon to assign their rating.
5. Where the CFEP was not highly confident that the farm practices were consistent with the objectives and principles of the schedule, the CFEP would identify timebound actions and practices that would be required to give the CFEP confidence that the objectives and principles of the schedule will be achieved.
6. The CFEP would assign an overall grade for the farm, according to the grading table set out in Table 4 in Appendix 2.
7. The CFEP would provide the results of their review to the Council.

The FEP review is not a compliance inspection. The CFEPs are not warranted enforcement officers and have no powers as enforcement officers under the RMA. The CFEP would be present at the invitation of the farmer, to provide an independent assessment of the farmer's practices in comparison to the objectives and principles in the schedule.

CFEPs would be under no obligation to report suspected non-compliance to the council. The CFEPs review role is to report their level of confidence that the farm was adhering to each objective and principle in the schedule, the reasons for the CFEP reaching that level of confidence, and evidence they relied upon to make their determination. A level of confidence rated less than "high" could potentially represent a breach of the RMA, but not always. It would be the role of a Council compliance officer to follow up on FEP reviews that contained information that may suggest non-compliance with the RMA was occurring. As is currently the case, this may lead to one or more of the many responses to non-compliance that are available to the Council, such as a letter of direction, a formal warning, an infringement notice, or an

abatement notice. Potentially, a CFEP could be called as witness to Council enforcement action taken following a Council investigation which may have been triggered by a FEP review report from a CFEP.

3.5 Responding to poor performance

The overall objective of PPC1 and the above outlined FEP proposal is to achieve widespread behaviour change on farms.

The intention of the system outlined in this paper is that most farmers will continue to move towards GFP in response to regular FEP reviews by a CFEP and based on the CFEP's recommendations on the actions required to align actual farm practices with the objectives and principles in the schedule. This process is deliberately designed to be flexible and easily tailored to a wide variety of farming situations. The tension with such a flexible non-prescriptive system is that firstly there is a degree of subjectivity to the decision whether farming is consistent with the objectives and principles in the schedule, and secondly Overseer is only able to be used to indicate whether N loss is, on the balance of probabilities, likely to be consistent with the N loss obligation for a particular property. Enabling this subjectivity allows the FEP process to be flexible, and adaptable to different farming situations, but as previously stated, creates challenges for enforceability.

The FEP review approach outlined in the previous section can be used to enable those farmers who choose to improve their performance to do so with the minimum of bureaucratic obstacles using the FEP and review process. However, it is likely to be too subjective to allow consistent and simple enforcement.

This flexible approach can be bolstered by including a section 128 review condition in the resource consent that would be triggered in response to a review resulting in a D grade. The review process could be used to remove the consent conditions enabling the use of the flexible approach in outlined schedule 1 and apply more appropriate consent conditions. These new consent conditions could be much more prescriptive, more like a series of minimum standards and mandatory actions for the farming operation. These conditions would most likely be developed in consultation with an CFEP, to tailor those minimum standards and mandatory actions to the particular farming operation. The revised conditions would create specific, enforceable obligations, that could only be changed through a formal section 127 change to consent process. The Council would undertake compliance monitoring on the farm. If the farm demonstrated a history of good compliance with the prescriptive consent conditions, the consent holder could apply under s127 to change their consent conditions back to enable them to operate under the more flexible objective and principle process set out in schedule 1. The decision to accept or decline that request would be at the discretion of the Council and would be influenced by the recent compliance history under the more stringent regime.

In the event of that the revised conditions were not complied with, the Council would be able to respond according to its existing processes and procedures for dealing with non-compliance, including the consideration of enforcement action.

Irrespective of the LOC review grades and the schedule objectives and principles, it is noted that the Waikato Regional Plan contains a number of other existing regulatory obligations which apply to farms. Achieving an A (or any other) grade would not exempt or protect a farmer from enforcement action for breaches of any other obligations under those provisions in the Waikato Regional Plan.

3.6 CFEP quality control

The ability of the FEP process to improve water quality is very dependent on CFEPs making appropriate and consistent decisions about whether practices are consistent with schedule 1 objectives and principles, and the actions necessary when a farm practice is not consistent with GFP.

The integrity of the FEP system is reliant on the CFEP's providing high quality guidance and using expert judgement to help farmers identify and implement robust and effective actions and practices that will deliver the water quality improvement sought by PC1. The FEP approach outlined in this paper will require the expansion of current capability to deliver these services.

To maintain the credibility of the system, it will be essential for the Council to maintain an effective system of monitoring CFEP professional practice to ensure CFEPs maintain an appropriately high standard of rigour in reviewing FEPs.

The Council proposes to undertake a range of actions to ensure CFEPs maintain appropriate professional standards and quality of work.

1. A Terms of Agreement (TOA) will be developed that all CFEPs will have to sign up to in order to be certified. The TOA will include requirements to declare conflicts of interest to adhere to the Councils FEP review manual, and to maintain high levels of professional conduct.
2. The Council has been actively working at a national level to assist with the introduction of a national Farm Environment Planner certification programme, that will oversee competency standards, continuing professional development and disciplinary matters for professional CFEPs. In addition to requiring CFEPS to sign up to the Councils TOA, the Council also proposes to require CFEPs to be professionally certified as a Farm Environment Planner once the national certification system is established.
3. The Council will operate an audit programme, where it will audit CFEPs performance on a regular basis for quality control purposes.
4. The Council will, through its TOA, will reserve the right to cancel a CFEP's authority to review FEPs in the event that either the TOA or ethical or competency standards are breached.

Healthy Rivers
PLAN FOR CHANGE
Wai Ora
HE RAUTAKI WHAKAPAIPAI

SCHEDULE 1

REQUIREMENTS FOR FARM ENVIRONMENT PLANS

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

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The Farm Environment Plan (FEP) will be prepared in accordance with Parts A, and B below, reviewed in accordance with Part C, and changed in accordance with Part D.

PART A – PROVISION OF FEP

An FEP must be submitted to Waikato Regional Council (the council) using either:

1. A council digital FEP tool including the matters set out in Part B below to the extent relevant; OR
2. An industry prepared FEP that:
   a) includes the following minimum components:
      i. the matters set out in Parts B below to the extent relevant; and
      ii. performance measures that are capable of being reviewed as set out in Part C below
   b) has been approved by the Chief Executive of Waikato Regional Council as meeting the criteria in (a) and capable of providing FEPs in a digital format, consistent with the council data exchange specifications.

The Waikato Regional Council data exchange specifications will set out the standards and detail of the data exchange process to be used by external industry parties in the provision of FEPs.

PART B – FEP CONTENT

The FEP shall contain as a minimum:

1. The property or enterprise details:
   a) Full name, address and contact details (including email addresses and telephone numbers) of the person responsible for the land use activities;
   b) Legal description of the land and any relevant farm identifiers such as dairy supply number.

2. A map(s) at a scale that clearly shows:
   a) The boundaries of the property or land areas being farmed;
   b) The boundaries of the main land management units or land uses on the property or within the farm enterprise;
   c) The location of any Schedule C waterbodies;
   d) The location of riparian vegetation and fences adjacent to water bodies;
   e) The location on any waterways where stock have access or there are stock crossings;

f) The location of any critical source areas and hotspots for contaminant loss to groundwater or surface water; and
g) The location(s) of any required actions to support the achievement of the objectives and principles listed in section 3.

3. An assessment of whether farming practices are consistent with each of the following objectives and principles; and
   a. a description of those farming practices that will continue to be undertaken in a manner consistent with the objectives and principles;
   b. A description of those farming practices that are not consistent with the objectives or principles, and a description of the time bound actions or practices that will be adopted to ensure the objectives or principles are met.

3a – Management area: Whole farm

Objective 1

To manage farming activities according to good farming practice, and in a way that minimises the loss of contaminants from the farm.

Principles

1. Identify the characteristics of the farm system, the risks that the farm system poses to water quality, and the good farming practices that minimise the losses of sediment, microbial pathogens, phosphorus and nitrogen.
2. Maintain accurate and auditable records of annual farm inputs, outputs and management practices.
3. Manage farming operations to minimise losses of sediment, microbial pathogens, phosphorus and nitrogen to water, and maintain or enhance soil structure.

3b – Management Area: Nutrient management

Objective 2

To minimise nutrient losses to water while maximising nutrient use efficiency.

Principles

4. Monitor soil phosphorus levels and maintain them at or below the agronomic optimum for the farm system.
5. Manage the amount and timing of fertiliser inputs, taking account of all sources of nitrogen and phosphorus, to match plant requirements and minimise risk of losses.
6. Store and load fertiliser to minimise risk of spillage, leaching and loss into waterbodies.
7. Ensure equipment for spreading fertilisers is well maintained and calibrated.
8. Store, transport and distribute feed to minimise wastage, leachate and soil damage.

Objective 3

To farm in accordance with the nitrogen management requirements of PC1

Principle

Either, where the properties NRP is ≤75th percentile:

22. Farm in a manner that does not result in farm nitrogen losses exceeding the farm's NRP;

Or, *where the properties NRP is > than the 75th percentile*

22. Farm in a manner that does not result in farm nitrogen losses exceeding the 75th%ile for the FMU; or

3c – Management Area: Waterways

Objective 4

To minimise losses of sediment, microbial pathogens, phosphorus and nitrogen to waterways.

Principles

9. Identify risk of overland flow of phosphorus, sediment and microbial pathogens on the property and implement measures to minimise losses of these to waterbodies.
10. Locate and manage farm tracks, gateways, water troughs, self-feeding areas, stock camps, wallows and other sources of run-off to minimise risks to water quality.

Objective 5

To exclude stock from waterbodies and minimise stock damage to the beds and margins of wetlands and riparian areas.

Principle

11. Exclude stock from waterbodies to the extent that it is compatible with land form, stock class and stock intensity. Where exclusion is not possible, mitigate impacts on waterways.
23. Exclude stock in a manner consistent with the requirements of schedule C.

3d – Management Area: Land and soil

Objective 6

To minimise contaminant losses to waterways from soil disturbance and erosion.

Principles

12. Manage periods of exposed soil between crops/pasture to reduce risk of erosion, overland flow and leaching.
13. Manage or retire erosion-prone land to minimise soil losses through appropriate measures and practices.
14. Select appropriate paddocks for growing crops and intensive grazing, recognising and mitigating possible nitrogen and phosphorus, faecal, and sediment loss from critical source areas.
15. Manage grazing and crops to minimise losses from critical source areas.

3e – Management Area: Effluent

Objective 7

To minimise contaminant losses to waterways from farm animal effluent.

Principles

16. Ensure the effluent system meets industry-specific Code of Practice or equivalent standard.
17. Have sufficient storage available for farm effluent and wastewater and actively manage effluent storage levels.
18. Ensure equipment for spreading effluent and other organic manures is well maintained and calibrated.
19. Apply effluent to pasture and crops at depths, rates and times to match plant requirements and soil water holding capacity.

3f – Management Area: Water and irrigation

Objective 8

To operate irrigation systems efficiently and ensuring that the actual use of water is monitored and is efficient.

Principles

20. Manage the amount and timing of irrigation inputs to meet plant demands and minimise risk of leaching and run off.
21. Design, check and operate irrigation systems to minimise the amount of water needed to meet production objectives.

4. The FEP shall include for each objective and principle in section 3 above:
a) Detail and content that reflects the scale of environmental risk posed by the activity;
b) A defined and auditable description of the actions and practices to be undertaken to farm in accordance with the objectives and principles in Part B;
c) The records and evidence that must be kept that demonstrate performance and the achievement of an objective or principle listed in Part B.

PART C – FEP REVIEW REQUIREMENTS

The FEP shall be reviewed by a Certified Farm Environment Planner for consistency with this schedule:

1. Prior to lodging a landuse consent application with the Council under rule 3.11.5.3 – 3.11.5.5 of PC1; and
2. Within 12 months of the granting of that consent application; and
3. In accordance with the review intervals set out in the conditions of that resource consent.

The purpose of the review is to provide an expert opinion whether the farming activities on the property are being undertaken in a manner consistent with the objectives and principles set out in Part B of this schedule.

The review shall be undertaken by a Certified Farm Environment Planner who holds a reviewing endorsement (issued by WRC), and must be undertaken in accordance with the review process set out the Waikato Regional Councils FEP Independent Review manual.

The review shall be undertaken by re-assessing the FEP in accordance with the requirements set out in this schedule.

The results of the review shall be provided to the Waikato Regional Council, within 20 working days of the review due date.

PART D – FEP CHANGES

Unless otherwise required by the Waikato Regional Council in accordance with any conditions of the resource consent, changes can be made to the FEP without triggering the need for review by a CFEP, provided:

1. The farming activity remains consistent with Part B of this schedule
2. The change to the FEP does not contravene any mandatory requirement of the resource consent, or any requirement of the Regional Plan that is not already authorised.
3. The nature of the change is documented in writing and made available to any CFEP undertaking a review, or to the Waikato Regional Council, on request.

Appendix 2 Good Farming Practice Principles[6]

GENERAL PRINCIPLES

1. Identify the physical and biophysical characteristics of the farm system, assess the risk factors to water quality associated with the farm system, and manage appropriately.
2. Maintain accurate and auditable records of annual farm inputs, outputs and management practices.
3. Manage farming operations to minimise direct and indirect losses of sediment and nutrients to water, and maintain or enhance soil structure, where agronomically appropriate.

NUTRIENTS

4. Monitor soil phosphorus levels and maintain them at or below the agronomic optimum for the farm system
5. Manage the amount and timing of fertiliser inputs, taking account of all sources of nutrients, to match plant requirements and minimise risk of losses.
6. Store and load fertiliser to minimise risk of spillage, leaching and loss into water bodies
7. Ensure equipment for spreading fertilisers is well maintained and calibrated.
8. Store, transport and distribute feed to minimise wastage, leachate and soil damage.

WATERWAYS

9. Identify risk of overland flow of sediment and faecal bacteria on the property and implement measures to minimise transport of these to water bodies.
10. Locate and manage farm tracks, gateways, water troughs, self-feeding areas, stock camps, wallows and other sources of run-off to minimise risks to water quality.
11. Exclude stock from water bodies to the extent that is compatible with land form, stock class and stock intensity. Where exclusion is not possible, mitigate impacts on waterways.

LAND AND SOIL

12. Manage periods of exposed soil between crops/ pasture to reduce risk of erosion, overland flow and leaching.
13. Manage or retire erosion prone land to minimise soil losses through appropriate measures and practices. (Implementing this principle may mean that Class 8 land is not actively farmed for arable, pastoral or commercial forestry land uses as this land is generally unsuitable for these uses as described in the Land Use Capability Handbook.)
14. Select appropriate paddocks for intensive grazing, recognising and mitigating possible nutrient and sediment loss from critical source areas.
15. Manage grazing to minimise losses from critical source areas.

EFFLUENT

16. Ensure the effluent system meets industry specific Code of Practice or equivalent standard.
17. Have sufficient, suitable storage available for farm effluent and wastewater.
18. Ensure equipment for spreading effluent and other organic manures is well maintained and calibrated.
19. Apply effluent to pasture and crops at depths, rates and times to match plant requirements and minimise risk to water bodies.

WATER AND IRRIGATION

20. Manage the amount and timing of irrigation inputs to meet plant demands and minimise risk of leaching and runoff.
21. Design, check and operate irrigation systems to minimise the amount of water needed to meet production objectives.

[6] Good Farming Practice Action Plan for Water Quality 2018, http://www.fedfarm.org.nz/FFPublic/Policy2/National/Good_Farming_Practice-Action_Plan_for_Water_Quality_2018.aspx

Appendix 3: Review Grades and Confidence ratings

Table 2 Level of Confidence ratings for assessing individual GFP principles.

LOC Rating	Meaning
High	The CFEP concludes the farm practices likely to be consistent with the FEP objective or principle. The farmer has appropriate evidence to demonstrate their practice achieves the principle and can explain or show what/how their practices have been undertaken.
Medium	The CFEP concludes the farm practices are possibly consistent with an objective or principle. The farmer either has appropriate evidence to demonstrate their practices achieves the principle or can show what/how their practices have been undertaken.
Low	The CFEP concludes the farm practices are unlikely to be consistent with an objective or principle. The farmer cannot produce evidence to demonstrate how their practices achieve the objective or principle and cannot show what/how their practices have been undertaken, OR the farmers evidence or practice is not consistent with the relevant objective or principle.
N/A	The objective or principle is not relevant to the farming operation

Table 3 Defining Objective LOC ratings based on principle LOC ratings

Principle LOC ratings	Objective LOC rating[7]
All high LOC	High
Mostly high LOC, with 1 or more medium LOC	Either High or Medium LOC, depending on importance of the principle with the medium LOC rating to the objective.
Mostly high LOC, with 1 or more low LOC	Either Medium or Low LOC, depending on importance of the principle with the low LOC rating to the objective.
All medium LOC	Medium
One or more Low LOC	Low or Medium LOC depending on importance of the principle with the low LOC rating to the objective.

Table 4 Defining Overall Review Grades

Review Grade	Meaning[8]
A	Has received LOC ratings of "High" for all objectives.
B	Has received one or more "Medium" objective LOC ratings, no "Low" objective LOC ratings, has an appropriate action plan to improve LOC ratings, and is on track to achieve the plan
C	Has received one or more "Medium" objective LOC ratings, no "Low" objective LOC ratings, but either does not have an appropriate action plan to improve LOC ratings, or is not on-track to achieve the plan
D	One or more "Low" objective LOC ratings.

[7] Unless other information is available to the CFEP that makes the objective LOC rating inappropriate
[8] N/A LOC ratings are ignored for the purposes of defining Overall Review Grades

C4. Miscellaneous

C4.1. Background and explanation

286. This section discusses the introductory sections of PC1. This includes the explanatory statement and the sections under 3.11 Waikato and Waipā River. These sections include the area covered by Chapter 3.11 and the background and explanation sections:

- Co-management of the Waikato and Waipā Rivers
- Collaborative approach
- Water quality and NPS-FM
- Full achievement of the Vision and Strategy will be intergenerational
- Reviewing progress towards achieving the Vision and Strategy

C4.1.1. Submissions

287. In total there were 144 submissions to the introductory sections. No submissions were received on the explanatory statement, or the sections on water quality and the NPSFM and reviewing progress towards achieving the Vision and Strategy. The below sections discuss the introductory sections on which submissions were received.

288. Many submissions relate to overall PC1 or specific topics of PC1 which are dealt with in respective sections. This includes:

- The need for greater flexibility;
- Timeframes;
- Clarity for the Vision and Strategy and goals of PC1;
- The community and all stakeholders should share the cost of future changes in land use;
- Recognition for those who have worked to good environmental standards;
- Ensure that long-term implementation measures are based on good science and effects on communities;
- The CSG process and PC1 does not meet the social, economic and environmental needs of the community;
- The need to identify specific areas of land that farmers may have to retire land in future;
- Identify specific contributions to water quality and target those sources;
- Provide for education, promotion and subsidies for farmers to plant problem areas of farmland back to bush, along with the benefits that this can afford them;
- Ensure sheep and beef farms on hill country are planted in native species, following advice from local hapu, and that historical deforestation is replanted and enable farmers to make an income from native plantings through selective logging, selling seeds to local nurseries, and for use in Rongoa.;
- The target to achieve 10% reductions in 10 years should be more attainable and realistic;
- Provisions for CVP;
- Requests for a systematic review of point source and their seasonal effects on water quality

289. Many request references to land use change, the NRP, the FEP and stock exclusion should be amended or removed from multiple parts of the introductory sections. Several submitters suggest the standards for water quality that allows swimmability and food to be taken needs to be clearly defined and how the limits were derived.

C4.1.2. Area covered by Chapter 3.11

290. In total there were 25 submissions on the area covered by Chapter 3.11. Twelve submissions[31] request PC1 is withdrawn until consultation with Pare Hauraki has concluded to ensure the PC1 catchments are included under one plan. DoC, WRA and Agriterra Limited support the decision to reinstate the North Waikato/Hauraki area, that was withdrawn in December 2016 and request it is retained. R Peers-Adams suggest deleting the area covered by Chapter 3.11 as for some farmers very little of their farms flow into the Waipā and Waikato River catchments and most of his farm drains into the Mokau River Catchment. R Turner considers that the area covered in Chapter 3.11 should be amended to concentrate on the worst areas first.

291. Some submitters are concerned as to how the FMUs have been defined and consider it should be made clear that, as required by the NPS-FM, they are at a scale that reflects the management required to maintain or restore water quality, ecosystem health and indigenous biodiversity. The submitters request that the values and freshwater objectives should be set at levels that ensure this.

292. WRC suggest it should be made clear that Chapter 3.11-1 is additional to all other parts of the Operative Waikato Regional Plan (WRP).

293. D Coles requests peat lakes, riverine lakes, dune lakes, volcanic lakes are deleted from the list of FMUs as they are too small and would not be suitable in terms of the 75 percentile N provisions.

294. Federated Farmers suggest this section is amended to clarify various aspects including: monitoring of progress towards meeting targets and limits enabled by FMUs will also occur at the sub-catchment level using the sub-catchments identified in Map 3.11-2.; it must be made clear about what the FMUs are being used for, what the sub-catchments are being used for and how the NPSFM is being given effect to; the spatial unit for freshwater accounting and monitoring and ensure that it is a reasonable scale that provides for an indication of water quality and management issues.

C4.1.3. Background and Explanation

295. In total there are 44 submissions on the section titled 'Background and explanation'. Six submitters request the background and explanation is retained. Several submitters are concerned about the cost of PC1, the limitations Overseer has on CVP, the fact that PC1 must be in line with the NPS-FM swimability requirements, targets required at a property level when they should be achieved at a sub-catchment level. Some submitters consider the section should reflect the need for people and community resilience (Objective 4), the need for all discharges affecting water quality to be managed, possible adverse effects on industry and communities; the need to review all point source discharge consents against PC1 provisions, the need to address specific issues facing the horticultural sector in relation to land and freshwater management.

296. Fonterra considers the background and explanation should include words to clarify that the introductory and explanatory statement may assist with interpretation of PC1.

297. Rotorua Lakes DC and Hamilton CC suggest territorial authorities should not need to have their consents for municipal and industrial point source discharges reviewed with respect to the Vision and Strategy until these consents expire. They also consider it should be stated with respect to these discharges, that it may take the 80-year period for the targets to be achieved.

[31] Jivan Produce Ltd, Wai Shing Ltd, Sutherland produce Ltd, T.A.Reynolds Ltd, B Das and Sons Ltd, Perfect Produce Co Ltd, A S Wilcox & Sons Ltd, Makan Dava & Co Ltd, Chhagn Bros Co Ltd, Hira Bhana and Co Ltd, Ryan Farms Ltd, HortNZ,

Rotorua Lakes City Council also suggest adding further words to ensure new requirements for municipal and industrial discharges, take into account investment already made, the net benefit from additional investment and alternative methods for reduction in contaminants.

298. Fifteen submitters[32] have concerns about the impact of PC1 on the horticultural sector and request a new issue statement in the 'Background and explanation' section that recognises the needs and characteristics of the horticultural sector. They also suggest other amendments relating to CVP which are covered in other sections of this report.

299. Iwi of Hauraki request a new paragraph is inserted into the background and explanation to provide appropriate and necessary context to the mana whenua of the Waikato and Waipā Rivers. The new paragraph is to read:

> *Mana Whenua*
> *Mana whenua of the Waikato and Waipā River Catchments have enduring customary interests and relationships with the watercourses and wetlands of the catchments. Ongoing Treaty Settlements provide measures that enable mana whenua to fulfil their intergenerational responsibilities as kaitiaki. The rohe of iwi do not always align with catchment boundaries, and it is expected that as further Treaty Settlements and co-management agreements develop, there will be a need to consider the consistency and relevance of water quality management within and across the rohe. Also, refer to Section 2.2 of the Waikato Regional Plan. Section 2.2 provides a description of the iwi of the Waikato region and a summary of the key resource management issues affecting them within their respective rohe.*

300. Various submitters request the consultation statement that has been inserted into the background and explanation is retained as it will provide certainty to plan users, that Iwi have been consulted on the development of PPC1 in accordance with Schedule 1 of the RMA.

C4.1.4. Co-management of the Waikato and Waipā Rivers

301. In total there were five submissions to the section titled 'Co-management of the Waikato and Waipā Rivers' and two submitters request the section is retained. Oji Ltd oppose the way in which PC1 proposes to give effect to the Vision and Strategy and requests this section and other parts of the introductory sections are amended to give effect to the BPO approach.

302. Fulton Hogan request amendment to the third bullet point under paragraph 4 to ensure that reference to short-term objectives mean short-term freshwater objectives. HortNZ considers PC1 must recognise the good work farmers have done to reduce contaminants and there must be opportunities for new vegetable production provided there is a decrease in contaminant discharges compared to the activity it is replacing.

C4.1.5. Collaborative Approach

303. There were ten submissions in total on the section titled 'Collaborative approach'. Four submitters did not request a specific decision and T Williamson requests the collaborative approach is re-evaluated and for the PC1 process to begin again. Oji Ltd suggest this section is amended to record that only some stakeholders were represented and that there was no consensus from the CSG in relation to a number of issues and that involvement was by invitation only, issued by WRC. R Turner considers the CSG process was unfair and unbalanced to farmers.

[32] Wai Shing Ltd, A S Wilcox and Sons Ltd, T.A.Reynolds Ltd, Living Foods Ltd, Chhagn Bros Co Ltd, B Chapman, J Chapman, V Chapman, S Chapman, Hira Bhana and Co Ltd, Sutherland Produce Ltd, Perfect Produce Co Ltd, Makan Daya & Co Ltd, Ryan Farms Ltd, Balle Bros Ltd

304. HortNZ suggest the section must acknowledge that the plan does not adequately address all sources of contaminants that impact on values identified in the Vision and Strategy. Balle Bros Ltd suggest the implementation of PC1 can only be achieved if all stakeholders have contributed.

C4.1.6. Full achievement of the Vision and Strategy will be intergenerational

305. In total there are 59 submissions on the section titled 'Full achievement of the Vision and Strategy will be intergenerational'. Several submitters request this section is retained[33] and six submitters[34] request this section is deleted from PC1. Oji Ltd suggest deleting the second and third paragraphs on page 16.

306. I and B Dorreen consider that it is impractical and unrealistic to set standards for all water to be 'swimmable and safe for food gathering'. Beef and Lamb suggest this section should explicitly recognise the role sub-catchment groups will have in achieving the Vision and Strategy and reference to the NRP in bullet point 3 on page 15 is deleted. They also suggest a range of specific wording amendments to this section that reflects the overall philosophy of their submissions on the wider Plan Change, including sub-catchment planning, non-regulatory approaches and timeframe changes.

307. Balle Bros, Wairakei Pastoral and Hill Country Farmers Group request paragraph one is amended to ensure that land is not forcibly placed into low discharging land uses such as reforestation but instead to control land uses in moderation within high-risk sub-catchments. They also suggest that in other sub-catchments it may be more appropriate to focus on mitigation methods via conditions rather than preventing land use change. Balle Bros also suggest that land use change should be referred to as land use management changes. They also request a range of specific additions and deletions to the text.

308. DairyNZ request amendments to the section titled 'Reviewing progress towards achieving the Vision and Strategy' to ensure all contributors to the contaminant load in water bodies are required to take action through a sector neutral approach. AFFCO requests references to GMP and BMP are replaced with Best Practicable Option. They suggest that 'good' and 'best' management implies the obligation in these instances is different to the 'best practicable option', and at an extreme that the obligation could be impractical.

309. Pouakani Trust and Miraka Limited consider that future plan changes should not be based on land suitability, but on how land use impacts water quality. They also request amendments to paragraph eight to clarify that research and information developed is to support the determination of a discharge allocation framework.

310. Wairakei Pastoral Ltd suggest that there is an assumption that technologies or practices will become available and economically feasible, but this may not be the case and they therefore request amendments to reflect this view. They also request clarification that the short term is the 10-year period and that the approaches of PC1 are referred to as Stage 1. They also suggest the plan should refer to both property and enterprise instead of just property.

311. WRC suggests amendments to address minor inconsistencies. This includes: a certification system instead of an accreditation system under bullet point four on page 19, clarifying that reference to the plan means the WRP, that tree cover means woody vegetation (to be consistent with definitions), and clarifying that a future plan change may potentially focus on land suitability.

[33] Sinclair Family Trust, H N Kloeten Ltd, Mercury NZ Limited, DairyNZ
[34] H & S Brooks, Matira Sub-Catchment Group, A Findlay, D & P Parrott and K & C Reeves

312. Gavins limited and C and A Paterson request clarification that the 'reference point' means the five-year rolling average NRP. J Hathaway and J Russell consider bullet point three on page 19 should be amended to ensure the NRP can be recalculated in the future as new scientific evidence and new technology become available and that the NRP cannot be assumed to remain fixed through time. They also suggest municipal and industrial consent holders should be required to have their consents reviewed to ensure they comply with PC1 (and not wait until the current consent terms expire to do so). Genetic Technologies Ltd suggest farmers should have the choice to choose what number they use in terms of the reference point years identified in Schedule B or the five-year rolling average. This is because farmers may not have all the information to produce the five-year rolling average figure. They also request amendment to bullet point 4 as consideration needs to be given timeframes for rural professionals to get qualifications.

313. J and A Reeves request amendment to clarify that stock exclusion is only required on slopes over 15 degrees and to allow for alternative mitigation where there is a more effective or practical solution to stock exclusion. They also request clarification of what low; medium and high discharges actually are. R Gemmell requests the stock exclusion approach is deleted and ensure council places priority on the cleanliness of the water rather than stock exclusion where there is little potential for improvement.

C4.1.7. Analysis

314. The Officers note that many of the issues raised through submissions on the introductory sections have been discussed and analysed in other sections of this report. This includes submissions on land use change, the NRP and Overseer, FEPs, stock exclusion, commercial vegetable provisions, sub-catchment approaches, the withdrawal of the north eastern portion of PC1, consultation with Pare Hauraki and other general points to PC1 which are discussed in the whole of plan submissions to PC1.

315. The officer's also note that where the introductory sections make reference to specific provisions, for example the NRP or stock exclusion, amendments to the references in the introductory sections will only be made if those specific provisions are changed. The Hearing Panel, after reaching a conclusion on these elements will need to consider whether the introduction and explanation sections continue to be relevant, and if so, what consequential changes will be required. As the material is essentially explanatory, any changes would clearly fit within the ambit of consequential changes and are unlikely to raise issues relating to the scope of submissions.

316. The amendment sought by Iwi of Hauraki to include a paragraph on Mana Whenua into this section is recommended to be rejected by the Officers. River Iwi and Iwi of Hauraki are discussed in depth in PC1 and Var1. The environmental management plan of each iwi was taken into account, including the Iwi of Hauraki and further explanation is not required. It is also inconsistent with terminology used throughout PC1.

317. Many of the matters raised in the submissions, such as the request by Rotorua Lakes DC and Hamilton CC for confirmation that municipal and industrial dischargers should be required to revise their discharges in light of the Vision and Strategy and PC1 only once their consent terms have expired are subject to decision-making in the Block 2 s42A report related to point-source discharges. Officers consider that the background and explanation section should reflect, rather than drive, the position arrived at for other provisions.

318. Submissions on the section titled 'Full achievement of the Vision and Strategy will be intergenerational', cover a range of topics as this section provides context for many of PC1's

actions and priorities. This section will need to be updated to reflect the final form of PC1, if indeed there remains a desire to 'explain' what will become a relatively concise, stand-alone chapter of the WRP.

319. The Officers accept that the CSG approach and outcomes are not supported by all parties. While PC1 had its genesis in the CSG process, there has been movement in positions as well as the PC1 process since then. It is possibly more accurate to describe PC1 as being the outcome of a collaborative process, up until the point of notification, and after that time the RMA process has made further adjustments to the outcomes and content of PC1, in response to the many submissions on it.

C4.2. Implementation Methods

C4.2.1. 3.11.4 Implementation Methods/Ngā tikanga whakatinana

320. This section of the report relates to submissions received on the implementation methods. The implementation methods set out primarily non-regulatory ways in which the WRC seeks to achieve the objectives and policies of PC1, alongside the rules within PC1.

C4.2.1.1. Submissions on Implementation Methods as a whole

321. There are 57 submissions on the implementation methods (3.11.4) as a whole (including those received on Var1). Additional submissions were received on the individual implementation methods (3.11.4.1- 3.11.4.12). Eight submissions opposed the methods (or parts of), two submissions were neutral, and the remaining were supportive (in whole or in part).

C4.2.1.2. Submissions

322. A number of submitters oppose the implementation methods in general, due to the lack of certainty the methods provide, the inability for the methods to support the objectives and policies of PC1, and the general ineffectiveness of the methods without objectives, policies and rules to back them up. In particular, Fish and Game and Oji Ltd state that the methods are insufficient to implement the objectives of PC1. J. and A. Gaston also state that the methods lack certainty and have unrealistic timeframes and objectives. More certainty is required around the methods and in particular, their implementation, funding and monitoring. Furthermore, a number of submissions state that implementation methods should only be included once targets have been set.

323. However, a number of submitters support the methods (subject to amendments) and recognised that further work needs to be undertaken to strengthen the implementation methods. The focus on strengthening the methods includes:

- Identifying specific actions to carry out each method;
- Describing responsibilities for meeting specified targets;
- Including additional detail on how resource consents and rules will be adjusted to reflect the methods;
- Making changes to objectives and policies so that they better support the implementation methods.

324. Several submissions are concerned with the cost of the methods, and how these will be covered. Several submissions focus on how both urban and rural populations need to contribute to funding required to implement the method.

325. DoC requests that additional steps be included to exclude stock to improve water quality, and state that new methods and research are required to capture key information around water quality. New methods to prioritise research, manage private land in lake catchments, and to recognise current best practice are proposed to manage significant wetlands and lake catchments.

326. Nineteen submissions seek to include a new method that would read:

> ***3.11.4.13 Decision support system***
> *The Waikato Regional Council working with regional stakeholders will:*
> *a. Develop a Decision Support System (DSS) to model the effectiveness of mitigation measures that are proposed to be put in place and implemented at a sub-catchment, property and enterprise level through any proposed Farm Environment Plan.*
>
> *For the purpose of Method 3.11.4.13, 'effectiveness' means the contribution of the proposed mitigation measures (whether individually or collectively) - that are put in place and implemented at a sub-catchment, property and enterprise level - to reducing the diffuse discharge of contaminants within the sub-catchment where property and/or enterprise is located.*

327. Several submissions seek to include a new method which will allocate or monitor diffuse discharges. Fish and Game propose adding the method below:

> ***3.11.4.x Initiate allocation of diffuse discharges***
> *The Waikato Regional Council will initiate a framework for the allocation of diffuse discharges including reductions in nitrogen load according to specified timeframes for reductions by sub-catchment. The Waikato Regional Council will:*
> *a. Use science-based limits for the total allowable load of a contaminant for sub-catchment which will meet the water quality objectives of the plan;*
> *b. Implement contaminant leaching rates for diffuse discharges from properties and enterprises by allocating to limits, targets and timeframes;*
> *c. Quantify nitrogen load reductions based on over-allocation of nitrogen beyond the science-based limit for sub-catchments; and*
> *d. Define timeframes for sub-catchment nitrogen load reductions to be made.*

328. DairyNZ and Federated Farmers support the introduction of other models (aside from Overseer) in FEPs, and the submitters recognise that further research is required to determine what other methods are appropriate to reduce diffuse contaminants.

329. Several submissions recommend adding an additional method requiring catchment profiles for each sub-catchment group. Additional research is identified as being required to implement a sub-catchment approach.

C4.2.1.3. Analysis

330. The implementation methods have been included in PC1 in a way that recognises that achieving the Vision and Strategy will require more than just the regulatory actions in PC1. On this basis, the implementation methods support the regulatory actions, or identify some of the non-regulatory actions that will be undertaken.

331. Some appear to be what could be seen as “business as usual” for the WRC. Examples of this include obtaining appropriate levels of funding, undertaking monitoring and complying with

statutory requirements of various legislation or regulations. Other elements of the implementation methods are core issues subject to decision-making by the Hearing Panel on other policies and rules. Examples of this are issues related to scale of FMUs and monitoring requirements, the role of sub-catchment planning, the place for Certified Industry Schemes and whether or not PC1 provides stronger guidance on the management of lakes and wetlands.

332. A great many of the submission points are repetitive or reflect overall positioning in the submitters' requests for changes to other objectives, policies or rules. This is most prevalent with some of the more controversial matters in the implementation methods, such as establishing future allocation mechanisms, sub- catchment planning and monitoring progress toward the 80-year goals. For these matters, the analysis and conclusions for the relevant objective, policy or rule are adopted here and are not repeated.

333. Overall, Officers question the value of these implementation methods and whether they will remain relevant and helpful through the 10 year plus life of the plan change. As is noted below, while specific wording changes could improve the certainty of the various implementation methods, most are reliant on decisions made on the wider plan change, and these implementation methods will need to be adjusted in order to be consistent. Overall, Officers recommend that the implementation methods, in their entirety, be deleted.

C4.2.2. 3.11.4.1 Working with others/Te mahi tahi me ētehi atu

334. This implementation method acknowledges the importance of WRC working alongside stakeholders to implement the methods in this chapter. The Council's functions include coordination, funding, promoting awareness and education, and giving effect to the Vision and Strategy for the Waikato River. There are 89 submissions on Implementation Method 3.11.4.1 – Working with others/ Te mahi tahi me ētehi atu (including those received on Var1). Two submissions oppose the implementation method, and one submission is neutral. All other submissions support (fully or subject to amendments) the method.

335. While many submissions support this method, it is suggested in submissions that the relevant rules be amended to provide for sub-catchment scale planning. Submitters recognise the benefits of a sub-catchment planning approach including:

- Working with stakeholders to ensure implementation of the method (collaborative approach);
- Ensuring the method is implemented efficiently, and in a cost-effective manner.

336. A number of submissions recognise the benefits of a collaborative approach to implement and monitor the effectiveness of PC1 to achieve the 80-year targets.

337. Sieling Farms, J.M Reeve and R. and W. Verry seek to include landowners as specific stakeholders, as landowners' views are only represented through industry bodies. Submitters stated that industry bodies do not represent all landowners.

338. Tangata Whenua seek to delete the reference to 'other iwi' from method 3.11.4.1 to remove the distinction between river iwi and other iwi groups.

C4.2.2.1. Analysis

339. Officers recommend this implementation method is deleted in its entirety, as it would appear to overlap both with statutory requirements, generally accepted good practices for implementing a

plan related to water quality and certainly represents business as usual for the WRC. Other than a broad statement of intent, it would appear to have little value in the in PC1.

C4.2.3. 3.11.4.2 Certified Industry Scheme/Te kaupapa ā-ahumahi kua whai tohu

340. This method was assessed in the Block 2 hearing report.

C4.2.4. 3.11.4.3 Farm Environment Plans/Ngā Mahere Taiao ā-Pāmu

341. This implementation method sets out the requirements for FEPs in terms of who can prepare a FEP and what a FEP must cover. The method states that the FEP must also include actions to reduce the discharge of contaminants. The method also sets out how the WRC will monitor the adherence to FEPs. There are 156 submissions on this method (including those received on Var1), with 125 in support (fully or subject to amendments), 27 opposed (fully or subject to amendments) and four neutral submissions.

342. Fifty-five submitters are concerned with the requirements for a certified person to prepare a FEP, or the costs associated with preparing a FEP and request that landowners be allowed to prepare FEPs. Submitters are also concerned that there are not enough CFEPs to prepare FEPs, and that the timeframes for FEPs to be in place be extended, as opposed to the requirements for a FEP to be prepared by a certified professional amended. Some submissions request that the WRC prepare a template so that landowners and farmers can prepare a FEP that covers the necessary mitigation measures.

343. A number of submissions support the requirements for FEPs, stating that they are good tools to enable sustainable farming practices. However, some submitters also request that mitigation measures and costs not provided for in Overseer be allowed and questioned the adequacy of the Overseer model. Submitters identified the need for a standard monitoring program to be in place so that the effectiveness of the mitigation measures (as set out in a FEP) can be recorded. Several submitters, including the NZIPIM and tangata whenua have recognised the need for an auditing system to ensure consistency across FEPs.

344. Theland Tahi Farm Group Limited requests that the requirements for FEPs are better set out, so that the expectations on content and the standard to which they must be prepared are clear.

345. Waikato Environment Centre seeks to amend the implementation method so that compliance monitoring is carried out by an independent party. The submitter perceives that there is a conflict of interest through the proposed appointment of farm industry professionals (such as fertiliser company representatives) being able to certify and undertake auditing of FEPs.

346. P K Balle requests that the minimum area for which a FEP is required be reduced so that small, non-commercial properties are exempt from preparing FEP. Black Jack Farms also requests that an exemption is included for drystock farms so they are exempt from preparing and adhering to FEPs.

347. Federated Farmers requests amendments in line with other requests in relation to the rules, seeking a ‘pragmatic’ approach, with specific recognition of their concept of ‘Most Practicable Option’. Several other submitters request that FEPs should be supplemented, or replaced with other BPOs, including HFM.

348. Oji Ltd and M. Hamilton request that FEPs only be required in support of resource consent applications and not for permitted activities.

349. Fish and Game do not support FEPs specifying the level of reduction required, and believe this should be stated in the consent documentation and subject to regular review. Federated Farmers are not supportive of a blanket approach for contaminant reduction, without considering the characteristics of each sub-catchment.

C4.2.4.1. Analysis

350. While the implementation methods as a whole are recommended to be deleted, if the Hearing Panel was minded to keep some of the implementation methods, this method supports the implementation of FEPs in PC1, and if it is to be kept it may need minor updates to reflect the final positioning on those provisions. Overall, the implementation method is largely subsumed within both the revised framework for FEPs and WRC's PC1 implementation planning. At the request of the Hearing Panel, Officers can include appropriate wording in the final reply report.

C4.2.5. 3.11.4.4 Lakes and Whangamarino Wetland/Ngā Roto me ngā Repo o Whangamarino

351. This implementation method seeks to develop Lake Catchment Plans, including for Lake Waikare and Whangamarino Wetland, building on the existing Shallow Lakes Management Plans. These plans will be developed in consultation with the community and are required to manage the health of the lakes and encourage their restoration. A set of 10-year water quality targets will also be developed. A total of 81 submissions were received on this implementation method (including those received on Var1) and all but one supported the implementation method.

352. Hamilton CC opposed the method and sought to amend the provision so that relevant territorial authorities are included in the preparation of Lake Catchment Plans.

353. Several submitters recognise that the methods are only worthwhile if they flow onto objectives, policies and rules within PC1, as the methods themselves are a non-regulatory method. Fish and Game acknowledge that the implementation methods do not result in regulatory action, and that methods should be clear and enforceable procedures and standards which can be used to ensure that the health of lake habitats is restored over time.

354. Many submitters identify the need to address pest and weed species. There is specific mention of introduced waterfowl, Canadian geese, trout and koi carp. These submissions also recognise the need for objectives, policies and rules for pest and weed species to be managed properly.

355. Several submitters also seek for this implementation method to cover the wider Waikato and Waipā catchments. The National Wetland Trust seek the following amendments:

> ***3.11.4.4 Lakes and Whangamarino Wetland/Ngā Roto me ngā Repo o Whangamarino***
>
> *e. Support research and testing of restoration tools and options to maintain and enhance the health of shallow lakes and Whangamarino wetlands (e.g. lake modelling, lake bed sediment treatments, wetland restoration methods, constructed wetlands, floating wetlands, silt traps, pest fish management, and farm system management tools).*
>
> *f. Support lake and Whangamarino wetland restoration programmes including, but not limited to, advice, funding, and project management. Restoration programmes may have a wider scope than water quality, including hydrological restoration, revegetation and biodiversity restoration.'*

356. WRC seeks clarification around the wording of the implementation method, which could be interpreted as each lake (not priority lakes only) requiring a Lake Catchment Plan. Ravensdown

seeks clarification on what a Lake Catchment Plan must cover and DoC requests that a method to implement existing Lake Management Plans and Strategies is included, and are concerned that the method has no regulatory impact.

357. Other submissions focus on the impacts of lake flushing on sediment in lakes, amending water quality analysis to determine all key contaminant sources for rivers and lakes, and providing more recognition of the effects of pest fish on waterways.

C4.2.5.1. Analysis

358. While the implementation methods as a whole are recommended to be deleted, if the Hearing Panel was minded to keep some of the implementation methods, this method supports the implementation of Policy 14 and FEPs, and if it is to be kept it needs to be updated to reflect the final positioning on those provisions. While it provides more detail than Policy 14, it largely arrives at the same position. At the request of the Hearing Panel, Officers can include appropriate wording in the final reply report.

C4.2.6. 3.11.4.5 Sub-catchment scale planning/Te whakamāherehere mō te whānuitanga o ngā riu kōawaawa

359. This implementation method promotes the development of sub-catchment scale plans by WRC. There are 163 submissions on this implementation method (including Var1), 10 opposed and 1 neutral submission, all other submissions received are supportive (fully or in part).

360. The submissions recognise the benefits of this implementation method, however, there are concerns regarding the inability for the method to be put into practice given it is a non-regulatory method. The submissions generally conclude that the method needs to be supported by objectives, policies and rules in order to have effect. Beef + Lamb seeks changes to various objectives, policies and rules and states that these changes need to be reflected in the implementation methods also. A large number of submissions identified the disconnect that exists between this implementation method, which seeks to implement a sub-catchment approach to managing water quality, and the rules which do not use this approach.

361. The majority of submissions support a sub-catchment approach to managing water quality. Submitters recognise the benefits of each catchment being managed differently, due to the variation in water quality issues and land use activities within each sub-catchment. Submissions are supportive of the sub-catchment approach, as it requires the sub-catchments with the poorest water quality to change the most, meaning that not every landowner is penalised to the same extent. Submissions are also supportive of the ability for landowners to control their own water quality outcomes and of the high level of stakeholder involvement at a farm, sub-catchment and catchment level proposed. A number of submitters recognise that co-ordinated planning across a spatially discrete area will motivate landowners to actively participate in FEPs.

362. Several submitters are also concerned about the timing in which FEPs will be required in relation to when sub-catchment plans will be produced. The submitters consider that Sub-Catchment Management Plans need to be prepared first, so that robust FEPs can be prepared for each farm, and successfully manage water quality outcomes.

363. Rotorua Lakes DC considers Sub-Catchment Planning an important mechanism in improving water quality and that helps lead the community to achieve the objectives of PC1. Rotorua Lakes DC supports the use of a sub-catchment approach as it will help emphasise individual property regulation and strengthen the transition to natural capital-based limits. Rotorua Lakes DC proposes adding the following clause to strengthen the use of Sub-Catchment Planning:

h. Making development of sub-catchment plans a high priority implementation item.
i. Working closely with territorial authorities in development of sub-catchment plans.
j. Promoting sub-catchment plans that deliver broader benefits than individual property compliance.

364. Submitters are also concerned that currently, there is not enough research to underpin and inform a sub-catchment management approach. Submitters consider additional water testing and monitoring is required before this approach can be implemented. The ambiguity regarding timing and funding was also raised as an issue. K L Brewer request an amendment so that the sub-catchment approach is only used where there has been long-term research carried out that demonstrates there is a water quality issue. DoC seeks further clarity so that landowners know when a sub-catchment approach has been shown to be required and suggests amending the wording so that the mitigation measures with the greatest environmental outcomes are prioritised to achieve the desired water quality outcomes.

365. Fish and Game seek to include provisions that allow trading of contaminant loss rates between enterprises or properties in the same sub-catchment where the reductions required cannot be achieved whilst maintaining on-farm profitability. However, M and R Johnston request amendments so that all exemptions are removed, including the ability for the dairy sector to buy credits in exchange for reducing their contaminant discharge levels. This submission states that the approach taken needs to be fair across all sectors.

366. HFM seeks an amendment to the implementation method so that the funding contribution for each land use activity/industry is equivalent to the effects on the environment that they have.

367. Waitomo DC oppose (with amendments) the implementation method and emphasise that Territorial Authorities should play an active role in sub-catchment planning, as they are already involved in many sub-catchment activities. P D Brodie suggests amending the method so that Territorial Authorities have an integral role in the development of Sub-Catchment Management Plans and S C T Carter also states that sub-catchment planning should be left to Territorial Authorities and the local community.

368. D.P Coles requests that Sub-Catchment Plans are the primary justification for FEPs. The following amended wording is proposed:

> *'Waikato Regional Council will work with others <u>including affected parties to develop Sub-Catchment Plans by 2026</u> to develop sub-catchment scale plans (where a catchment plan does not already exist) where it has been shown to be required. Sub-catchment scale planning will:…*
>
> *<u>h All contaminants and their sources are to be weighted in terms of their actual contributions</u>*
> *<u>i. FEP's need only to recognise problems established within a Sub-Catchment Plan.</u>*
> *<u>j. Sub-Catchment Plans will allow for mitigation effects.</u>'*

369. A number of submissions also propose changes to the methods proposed to be included in a sub-catchment approach. WRC's submission recognises the variation in the 69 sub-catchments in the region and states the need for the ability to tailor the management approach depending on the catchment. Q O Lichtwark requests that the method provides for an approach that uses a sub-catchment average of the NRP. The submitter is opposed to the use of the NRP because it does not allow farmers that have a low NRP to lift production by means available to other farmers who have not taken such a responsible attitude to N use on their farm. Trustees of

Highfield Deer Park seeks an amendment to clause (a) so that it includes the establishment of a contaminant discharge average based on sub-catchment attributes, contamination issues and potential for appropriate mitigation.

370. Timberlands Limited seeks to remove the reference to existing Sub-Catchment Management Plans, as these may not be fit for purpose and able to achieve the anticipated outcomes. The following wording is proposed:

> *Waikato Regional Council will work with relevant stakeholders to develop sub-catchment scale plans (where a catchment plan does not already exist) and where it has shown to be required developing a plan would result in achieving the 10-year water quality attribute targets more efficiently. Sub-catchment planning will:*

371. The submitter is concerned that existing Sub-Catchment Management Plans may not target all four key contaminants and, therefore, may not achieve the desired outcomes.

C4.2.6.1. Analysis

372. While the implementation methods as a whole are recommended to be deleted, if the Hearing Panel was minded to keep some of the implementation methods, this method supports the implementation of Policy 9, and if it is to be kept it needs to be updated to reflect the final positioning of Policy 9. At this point, only limited changes to Policy 9 are recommended, so any changes to this implementation method are also likely to be limited. At the request of the Hearing Panel, Officers can include appropriate wording in the final reply report.

C4.2.7. 3.11.4.6 Funding and implementation/Te pūtea me te whakatinanatanga

373. This implementation method sets out how WRC will provide resources and funding for the implementation of the methods set out in Chapter 3.11. This includes providing staff, resources and leadership, and securing funding through annual plans and long-term plans. There are 89 submissions on this implementation method (including on Var1), 11 oppose the method (in full or subject to amendments) and one submitter is neutral. All other submitters are supportive (in full or subject to amendments).

374. Submitters appear to accept that PC1 is resource intensive and is costly. The submitters are generally supportive of the WRC providing funding and resources, however, some question the ambiguity of this implementation method in that if funding is not secured, they should not be expected to implement the plan change. Submitters seek to remove the uncertainty about funding being secured for example, P.D Brodie proposes the following wording:

> *b. ~~Seek to secure funding~~ Fund ~~for~~ the implementation of Chapter 3.11 through the annual plan and long term plan processes.*

375. A number of submissions identify the need for funding to be spread evenly across ratepayers, not just farmers, as everyone benefits from improved water quality. However, Fish and Game proposes inserting an additional clause so that land users and activities that contribute the most to over-allocation bear the majority of the costs required to improve water quality. The wording sought is:

> *c. Source funding discharge reductions by way of an environmental consumptive rate based on the sensitivity of the receiving environment and degree of risk within a sub-catchment rather than a general rate.*

376. Oji Ltd states it should be clear that the costs, including regulatory cost, should be internalised by those activities giving rise to the cost. The cost of obtaining consents and implementing and monitoring conditions falls to consent holders and in the case of permitted activity activities that must be monitored, specific funding is required. Without funding, PC1 will not be effective and the objectives will not be achieved. The submitter proposes an additional clause that requires funding to be in place to monitor permitted activities.

377. Submitters recognised the need for funding from a variety of organisations, including central government, and one submission (J.M Hahn) suggests attracting financial support from water and power providers from outside the Waikato and who benefit from improved water quality. I D Kerr suggests introducing an annual environmental or infrastructure payment for all land that is fenced to exclude animals, and states that payments should be made to farmers for ensuring the water reaching the main rivers is of a suitable quality.

378. Waikato Territorial Authorities all submitted on this implementation method. All seek (in various ways) to ensure that the WRC works with territorial authorities and other stakeholders on implementation of PC1, through sub-catchment scale plans, co-funding, working together and specific recognition of territorial authority infrastructure needs.

C4.2.7.1. Analysis

379. Officers recommend this implementation method is deleted in its entirety, as it would appear to overlap both with statutory requirements, generally accepted good practices for implementing a plan related to water quality and certainly represents business as usual for the WRC. Other than a broad statement of intent, it would appear to have little value in the in PC1.

C4.2.8. 3.11.4.7 Information needs to support any future allocation/Ngā pārongo e hiahiatia ana hei taunaki i ngā tohanga o anamata

380. This implementation method recognises the need for informed scientific research and information gathering to inform any future framework for the allocation of diffuse discharges. A total of 101 submissions were received (including those on Var1), with ten in opposition and three neutral submissions.

381. Fourteen submitters support the implementation method and approve of gathering information and carrying out research to inform allocation on a sub-catchment basis. However, the submitters oppose future allocation. A number of submitters are also concerned that the method includes future allocations and will allow a non-collaborative approach to water quality management in the future.

382. Charion Investment Trust requests amending the method so that it reflects a sub-catchment approach, as opposed to an individual or enterprise level approach. Fletcher Trust, Waeranga Partnership, Wairakei Pastoral Limited, Woodacre Partnership and D L and Y Yule propose a sub-catchment approach to diffuse discharge allocation and oppose setting future allocation limits. Theland Tahi Farm Group Limited also request deleting the reference to property or enterprise level diffuse-discharge allocation limits.

383. CNI Iwi Land Management Limited and Timberlands Limited state that the allocation of diffuse discharge limits gives the impression that there is a right to pollute and drives behaviour contrary to improving water quality. Both submissions propose the following wording:

Gather information and commission appropriate scientific research to inform any future regulations to manage discharges to target high polluting activities ~~framework for the allocation of diffuse discharges by 2026 including.~~

384. Miraka Limited, Wairarapa Moana Incorporation and the Pouakani Trust oppose the presumption that the framework will be based on land suitability. Miraka Limited proposes the following wording:

(b)(ii) Methods to categorise and define 'land suitability', as one potential allocation framework.

385. DoC considers there is adequate information to implement a land-based allocation regime immediately, however, Fish and Game state that more research is required to support appropriate discharge allocations within science-defined limits. A number of submitters state that more research is required to inform mitigation strategies. P D Brodie and Mercury NZ Limited both suggest including a reference to WRC as the primary body researching and gathering information.

386. DairyNZ seeks to be included in future research to improve water quality and requests the following amendment:

Information requirements to determine the need for property-level limits on diffuse discharges and any future allocation/… Waikato Regional Council will take a broad-based and integrated approach to assessing existing information and new information gathered through PPC1. It will do this in partnership with other agencies and industries, commissioning research on the effects of property-level limits on waterbodies, and implications for individuals and communities, ~~Gather information and commission appropriate scientific research to inform any future framework for the allocation of diffuse discharges~~ including:

387. Fulton Hogan and GBC Winstone both request that the wording of the implementation method is consistent with the NPS-FM. J M Reeve states that WRC should be using or advocating for a national approach to managing water quality, rather than developing another regional model.

388. A number of submissions recognise the need to provide detailed data and research to inform diffuse discharge limits. Tangata whenua and one individual propose including a 2026 timeframe for information gathering and require a cost-benefit analysis of the allocation options.

C4.2.8.1. Analysis

389. Officers recommend deleting this implementation method, as the RMA requires regional plans to be periodically reviewed, requires effectiveness and efficiency reviews of plans and there is specific guidance with respect to freshwater, in terms of the NPSFM, the Vision and Strategy and the WRPS all of which are likely to be reviewed prior to the review of PC1 and will set direction for future plan reviews and allocation mechanisms which may well be inconsistent with this implementation method. Therefore, Officers consider that it is unlikely that such an implementation method will remain appropriate or helpful over the life of the plan change.

C4.2.9. 3.11.4.8 Reviewing Chapter 3.11 and developing an allocation framework for the next Regional Plan/Te arotake i te Upoko 3.11, te whakarite hoki i tētehi anga toha mō te Mahere ā-Rohe e whai ake ana

390. This implementation method requires WRC to develop discharge allocation frameworks for properties and enterprises based on the best available information and use this to inform the future management of discharges. Eighty submitters comment on this implementation method, including ten in opposition, and four neutral submitters. The remainder were supportive (fully or subject to amendments). The submissions received were similar in content and support or opposition to those received on implementation method 3.11.4.7 – Information needs to support any future allocation.

391. Federated Farmers oppose the implementation method (subject to amendments) and seek for the allocation framework to be replaced with a discharge management framework at a sub-catchment level, as opposed to an individual property or enterprise level. DairyNZ also recognise the need for more management options for water quality improvement to be considered, as the current focus is on N allocation limits only. CNI Iwi Management Limited also state that allocating nutrient discharge limits is not the best way to improve water quality. Fish and Game propose more steps to support appropriate discharge allocation within science-based limits and propose the following wording:

> *3.11.4.8 - Reviewing Chapter 3.11 and refining and developing an allocation framework for the next Regional Plan*
> *Waikato Regional Council will:*
> *a. Refine and review discharge and allocation frameworks as part of the rolling review of sub-catchment performance Develop discharge allocation frameworks for individual properties and enterprises based on information collected under Method 3.11.4.7, taking into account the best available data, knowledge and technology at the time; and...*

392. A number of submitters commented on both implementation method 3.11.4.7 and 3.11.4.8, and support the implementation method and the gathering of information and carrying out research to inform allocation on a sub-catchment basis. However, the submitters oppose future allocation and are concerned that this will allow a non-collaborative approach to water quality management to take place in the future. Several submitters also raise the need for further research to support appropriate allocation frameworks. G and M Baldwin consider that there is enough information to implement an allocation framework now, rather than in a subsequent Regional Plan.

393. Fulton Hogan and GBC Winstone's submissions request that the wording of the implementation method is consistent with the NPS-FM. WRC request changes to the targets and propose the following wording to clause (b):

> *Use this to inform future changes... to meet the water quality attribute ^ targets^ in Table 3.11-1the Objectives*

394. A number of submissions support the method, however, seek that any new allocation regime must be in place by 1 July 2026 and must be developed alongside Tangata Whenua as co-governors. The following wording is proposed to clause (b):

> *Use ~~this to inform future~~ the best available information to develop changes to the Waikato Regional Plan by 2026 to manage discharges...*

395. Wairakei Pastoral Ltd propose an additional clause with the following wording to develop and allocation framework for sub-catchments:

> *Monitor and review any adaptive management and mitigation approach for the sub-catchment developed to determine a discharge allocation regime for the relevant sub-catchment as part of Stage 1; and*

396. Oji Ltd oppose this implementation method and request that it be deleted. The submitter considers that it is inconsistent with the CSG policy selection criteria and the submitter believes that this approach (in combination with other parts of the plan) could result in perverse environmental outcomes. Timberlands Limited's submission also opposes the method because allocating nutrient rights is not an appropriate method to improve water quality. Waikato Dairy Leaders Group submits that the implementation method should be broad enough to assess frameworks or options to manage P, sediment and microbial pathogens, as well as N.

397. Taupō DC supports the overall theory that an allocation framework should not penalise those who have already implemented farming practices that reduce diffuse discharges. However, the framework should allow for increasing an allocation where a landowner has reduced the level of discharge. The submitter suggests amending the implementation method to develop an allocation framework that rewards changes in land use management that have resulted in reduced diffuse discharges and requests that they be involved in the development of an allocation framework.

398. J.M Hahn and HFM both request that the implementation method be deferred, as the effects are not well understood, and the background research is insufficient.

399. Beef + Lamb support the implementation method, however, changes are required throughout the plan so that the implementation method flows through to the objectives, policies and rules.

C4.2.9.1. Analysis

400. Officers recommend deleting this implementation method, as the RMA requires regional plans to be periodically reviewed, requires effectiveness and efficiency reviews of plans and there is specific guidance with respect to freshwater, in terms of the NPSFM, the Vision and Strategy and the WRPS all of which are likely to be reviewed prior to the review of PC1 and will set direction for future plan reviews and allocation mechanisms which may well be inconsistent with this implementation method. Therefore, Officers consider that it is unlikely that such an implementation method will remain appropriate or helpful over the life of the plan change.

C4.2.10. 3.11.4.9 Managing the effects of urban development/Te whakahaere i ngā pānga o te whanaketanga ā-tāone

401. This implementation method acknowledges that WRC will work with territorial authorities to implement the WRPS, and will engage with communities when undertaking sub-catchment planning, to raise awareness of water quality issues and to identify solutions in urban sub-catchments. There is a total of 80 submissions (including Var1) on this method with nine in opposition and two neutral submitters.

402. Submitters were generally supportive of the implementation method as it ensures there are rules to protect and improve water quality in rural and urban settings. P D and A Buckthought are also supportive of rules that protect and improve water quality in urban environments and request amending this implementation method so that heavy metals are tested for in

waterways. They also propose an additional policy to minimise heavy metal discharges from urban development. Charion Investment Limited and the Fletcher Trust propose inserting an additional clause (c) to consider the effects from urban areas, road and rail networks:

> *c. Consider the effects of Nitrogen, Phosphorus, Sediment, and Microbial pathogens levels in water discharged from urban areas and the road and rail networks when assessing those levels in lakes, rivers and tributaries impacting on the Waikato River and the Waipā River.*

403. Several submitters oppose the implementation method as they believe the focus should be on contamination from urban areas, including stormwater and sewage discharges. FertNZ states that urban solutions to improve water quality should be comparable to rural solutions and proposes the following amendment to clause (b).

> *b. When undertaking sub-catchment scale planning under Method 3.11.4.5 in urban sub-catchments engage with urban communities to raise awareness of water quality issues, and to identify and implement effective solutions to meet the 80-year water quality attribute targets in Table 3.11-1 and the objectives of this plan for the urban context.*

404. Federated Farmers acknowledge the need for more research to gain a better understanding of the effects of urban development and propose an additional clause (c) with the following wording:

> *Gather information and gain a better understanding about the effects of urban development on water quality issues and the potential options or technology for dealing with those effects.*

405. Several submitters believe there is a disconnect between urban and rural landowners and the methods to improve water quality. Further restrictions need to be placed on urban development to mitigate adverse effects on water quality. Several submitters (primarily iwi groups) propose the following amendment to clause (a):

> *a. Continue to work with territorial authorities to implement the Waikato Regional Policy Statement set of principles that guide future development of the built environment ~~which anticipates and addresses~~ to address the cumulative effects of urban development on water quality over the long term.*

406. Hamilton CC, Rotorua Lakes DC and Taupō DC all submitted on this implementation method. Taupō DC support this method and re-iterate the need to be involved when developing solutions to manage the effects of urban development on water quality. Rotorua Lakes DC request changes that better balance the need to reduce contaminants and the impact urban development can have on contamination and proposes the following change:

> *a. Continue to work with territorial authorities to implement the Waikato Regional Policy Statement set of principles and territorial authority spatial plans that guide future development of the built environment which anticipates and addresses cumulative effects over the long term.*
>
> *This work should also recognise the ability of urban development in certain circumstances to result in a net overall improvement in contaminant load, and or profile.*

407. Hamilton CC request clarification on the terms 'urban sub-catchment' and 'solutions for the urban context,' and re-iterate the need for WRC to work with territorial authorities to manage the impacts on water quality from urban development. The following amendments are proposed:

> *a. Continue to work with territorial authorities to implement the Waikato Regional Policy Statement set of principles that guide future development of the built environment which anticipates and addresses cumulative effects over the long term.*
>
> *aa. Recognise the principles referred to in 'a' above will create pressure for additional storm water and wastewater discharges that needs to be recognised at the time of consenting these discharges.*
>
> *b. When undertaking sub-catchment scale planning under Method 3.11.4.5 in urban sub-catchments with urban areas, engage with the relevant territorial authorities, urban communities and other stakeholders to raise awareness of water quality issues, and to identify and implement effective solutions for the urban context measures to manage the adverse effects of activities and development on, and to enhance, water bodies.*
>
> *c. Work with relevant territorial authorities and stakeholders to implement the measures identified in b above.*

408. G Verkerk also submitted on the need for more focus on territorial authorities managing stormwater as part of managing overall water quality.

409. The submission from Federated Farmers states that the management of the effects from urban development should extend to sub-catchments identified for future urban development. They also recognise that better research is required and propose adding the following clause (c):

> *c. Gather information and gain a better understanding about the effects of urban development on water quality issues and the potential options or technology for dealing with those effects.*

410. Falconer is concerned that the rules concerning urban development are insufficient to manage point source discharges. HortNZ seek amendments so that urban development does not continue to contribute to the decline in water quality. Submissions stated that new urban development needs to take into account freshwater targets to be met in the sub-catchments (Table 3.11.1) and must meet the relevant policies to achieve Objective 1.

C4.2.10.1. Analysis

411. Officers recommend this implementation method is deleted in its entirety, as it would appear to overlap both with statutory requirements, generally accepted good practices for implementing a plan related to water quality and certainly represents business as usual for the WRC. Other than a broad statement of intent, it would appear to have little value in the in PC1.

C4.2.11. 3.11.4.10 Accounting system and monitoring/Te pūnaha kaute me te aroturuki

412. This implementation method sets out the requirement for WRC to establish and operate an accounting system and monitor FMUs. The WRC is required to collect information on relevant contaminants, establish baseline data and compile a monitoring plan to works towards achieving

the water quality targets. The WRC is required to use state of the environment monitoring data to identify and report on long-term trends and establish an information and accounting system for diffuse-discharges at a property or enterprise level. 75 submissions were received on this implementation method (five opposed, five neutral and the remainder supportive (fully or in part).

413. The majority of submitters support the implementation method, however, request amendments to how water quality is monitored and tested. A number of submitters state that information gathering and monitoring should occur at a sub-catchment level and that this needs to be included in the WRC's monitoring programme. Other submissions seek to include monitoring at entry and exit points on individual properties, to identify those activities compromising water quality. Mercury NZ Limited requests the inclusion of additional monitoring sites in tributary waterways and R W Verry states the need for monitoring to occur at a property/enterprise level to establish the source of pollution and proposes adding the following clauses:

    iv. Where sub-catchments are measured in an urban setting, sites should be added upstream from urban and industrial activities.
    v. Add new monitoring sites in each sub-catchment to collect property and enterprise specific data

414. Genesis Energy Limited, in addition to submitting on the need for more monitoring sites, also state that more guidance around monitoring methods and locations is required. Other submissions state that monitoring needs to be more wide-ranging (additional contaminants monitored) and needs to be appropriate for the local context/waterway.

415. Submissions acknowledge that monitoring and accounting help provide transparency which is positive. However, further details are required on how to manage the effects of stock exclusion, and some submitters state that an implementation timeframe is necessary. For example, Oji Ltd suggest a 5-year timeframe, while Taupō DC recommend a 10-year timeframe. Regardless, more specific details are required for monitoring to be successful. Submitters also need more clarity around funding, and data collection with HortNZ suggesting addition of:

    ca. Produce a framework model for the greater Waikato River and surrounding land using the best available data, that can be adapted to include new decision support tools at the sub-catchment level.

416. Tangata Whenua support the development of a freshwater accounting system, however, to improve water quality, consider it is important to identify the total load of each of the four contaminants and account for all sources of those contaminants. The following wording is proposed so that the Cultural Health Index is included as a tool for monitoring water quality and so that the four key contaminants are accounted for:

    '3.11.4.10 <u>Freshwater</u> accounting system and monitoring network/ Te pūnaha kaute me te aroturuki
    Waikato Regional Council will establish and operate a publicly available <u>freshwater</u> accounting system and monitoring <u>network</u> in each Freshwater Management Unit^, including:
    a. …

    c. Using state of the environment monitoring data including biological monitoring tools such as the Macroinvertebrate Community Index <u>and Cultural Health Index</u> to provide the basis for identifying and reporting on long-term trends; and

d. ~~An information~~ A freshwater accounting system that accounts for the diffuse discharges that supports the management of nitrogen, phosphorus, sediment and microbial pathogens diffuse discharges at the enterprise or property scale.'

417. J M Reeve opposes the accounting system and believes the system should remain with the landowner as opposed to the WRC and requests and additional clause:

> *(d) Enterprise and property scale information and accounting for diffuse discharges remain the responsibility of the enterprise or property owner. Waikato Regional Council will monitor and report on a random sample of no more than 10% of properties. Information available publicly will be collective and not property specific.*

418. Taupō Lake Care Incorporated also seeks clarification around what information is available for the public and recommend preparing a publicly accessible register of permitted N discharges.

419. Submissions from DairyNZ, Fulton Hogan Limited and GBC Winstone all acknowledge the need for the method to be consistent with the NPSFM. Another submission suggest that the Macroinvertebrate Community Index should be optional, and the method needs to give effect to the Vision and Strategy.

C4.2.11.1. Analysis

420. Officers recommend this implementation method is deleted in its entirety, as it would appear to overlap both with statutory requirements, generally accepted good practices for implementing a plan related to water quality and certainly represents business as usual for the WRC. Other than a broad statement of intent, it would appear to have little value in the in PC1.

C4.2.12. 3.11.4.11 Monitoring and evaluation of the implementation of Chapter 3.11/Te aroturuki me te arotake i te whakatinanatanga o te Upoko 3.11

421. This implementation method sets out how WRC will review and report on achieving the water quality objectives and targets, including preparing research methods and collating data and working with industry bodies to measure the success of the plan. There are 76 submissions on this method (including Var1) (seven in opposition, seven neutral submitters and the remaining in support (in full or in part).

422. A number of submissions support the method, however, are concerned about who will monitor the new requirements and cover the additional costs associated with monitoring and reporting on water quality.

423. Many submitters oppose the 80-year water quality target timeframe and state that reporting on water quality progress should be required in the shorter term to meet the required targets. Ballance support the method, however, the method needs revision so that it is clear that the long-term implementation timeframes will be reviewed as part of future plan changes. In terms of timeframes, DoC states that the method needs amending so that there is more certainty around the frequency of reporting and propose a 3-year timeframe. Mercury NZ Limited propose a 5 yearly monitoring and reporting timeframe. Tangata Whenua request that reporting on progress towards achieving the water quality targets will be carried out after 4 and 8 years (2020 and 2024). The following wording is suggested:

> *3.11.4.11 Plan effectiveness monitoring and evaluation of the implementation of Chapter 3.11*

a. ~~*Review and report*~~ *Report on* ~~*the*~~ *progress towards and achievement of the 10-year (Objective 3) and 80-year (Objective 1) water quality* ~~*objectives of Chapter 3.11*~~ *targets in 2020 and 2024.*

b. *Research and identify methods to measure actions at a sub-catchment, property and enterprise level, and their contribution to reductions in the discharge of contaminants.*

424. The majority of submissions are generally supportive of the implementation method and provided positive comments on the need for a transparent monitoring and review process. Several submissions request that provision be made for research to be undertaken by independent organisations in order to achieve the proposed water quality outcomes. Oji Ltd states that the implementation method is not impartial and proposes the following change:

e. *Work with* ~~*industry*~~ *a broad range of stakeholders to collate information on the functioning and success of any Certified Industry Scheme.*

425. The Waikato Environment Centre suggests the method be amended so that it provides for an independent party to avoid potential conflict with farm appointed representatives. S G Clarke requests the method be amended to make provision for research to be undertaken by independent organisations. Research and results from monitoring need to be publicly available.

426. Several submitters suggest the method must be consistent with the NPS-FM, and that the method should reference Objective 1, not the 80-year water quality objectives. Federated Farmers state that the method needs to better reflect the outcomes proposed in Objectives 1 and 2, while HFM request that the implementation method be amended to reflect alternative approaches such as NRPs and FEPs. One submission opposes the use of NRP's and Wairakei Pastoral Limited requests that the method be amended so that it reflects an adaptive management and mitigation approach to managing water quality in each sub-catchment.

427. Federated Farmers request that the method be amended so that it is clear it applies to both point source and diffuse discharges, so that the effects on water quality are properly understood. Tangata Whenua support the implementation method subject to amendments so that it is clear that monitoring towards achieving the Objective 3 water quality targets will be undertaken at four yearly intervals. They also request that the following clause be added so that the importance of protecting and restoring tāngata whenua values:

f. *Review and report on the progress towards and achievement of 'Mana Tangata - protecting and restoring tāngata whenua values, including cultural and spiritual well-being' objectives of Chapter 3.11.*

428. Additional detail is required around funding, monitoring and a number of submissions state the need for further detail around monitoring and measuring the effectiveness of the methods proposed to improve water quality.

C4.2.12.1.Analysis

429. Officers recommend deleting this implementation method, as the RMA requires regional plans to be periodically reviewed (section 79), requires effectiveness and efficiency reviews of plans (section 35) and there is specific guidance with respect to freshwater, in terms of the NPSFM and the WRPS. Therefore, Officers consider that there is little value in maintaining this implementation method.

C4.2.12.2.3.11.4.12 Support research and dissemination of best practice guidelines to reduce diffuse discharges/Te taunaki i te rangahautanga me te tuaritanga o ngā aratohu mō ngā mahi tino whai take hei whakaiti i ngā rukenga roha

430. This implementation method identifies the need for WRC to implement and support research into best practice guidelines to reduce diffuse discharges. There are 85 submissions (including on Var1) on this method (three opposed, one neural and the remaining in support (fully or subject to amendments) provided comment.

431. A number of submitters support this implementation method, however, there are concerns around the use of the phrase "best practice management guidelines." Submissions propose using the term "good management practice" and "best practicable option/s" as alternatives. Submitters are concerned that using the term "best practice management guidelines" and "best management practice" implies that there are differing levels of obligation on resource users to avoid, mitigate or remedy adverse effects from water use. Submitters are concerned with the use of these terms given that there is no guidance from the WRC, and are concerned that the proposed wording does not allow for any leeway, given that the "good management practice" may be impractical.

432. DairyNZ request that the implementation method refers to "guidelines" only, not "best management practice guidelines" as the use of this term is not transferred over to FEP rules or the relevant schedules. Ballance state that the definition of "good management practice" should include a cross-reference to "Industry Agreed Good Management Practices" so that the definition is consistent nation-wide. FertNZ agrees with the need for an industry agreed and nation-wide approach. Federated Farmers also acknowledge the need for guidelines to be based on industry agreed good management practices and state that the term "best practice" does not provide enough flexibility or is not certain enough to provide for the wide range of farm systems and types. The following wording is proposed:

> *'3.11.4.12 Support research and dissemination of best industry agreed good management practice guidelines to reduce diffuse and point source discharges'*
>
> *a. In consultation and collaboration with industry and stakeholders, develop and disseminate best industry agreed good management practice guidelines for reducing the diffuse and point source discharges of nitrogen, phosphorus, sediment and microbial pathogens; and*
>
> *b. Support research into methods for reducing diffuse and point source discharges of contaminants to water; and*
>
> *c. In consultation and collaboration with industry and stakeholder, develop and disseminate guidelines for How Waikato Regional Council will consider applications to use models other than Overseer, how mitigations not recognised by Overseer will be recognised and provided for, how actual data may be used as an Overseer input (as opposed to defaults), circumstances for departure from Overseer parameter settings, how different input standards could be used for changes in the 2016 data input standards could be accommodated, and alternatives to provide for situations where data is missing.*

433. Ravensdown and Wairakei Pastoral Limited seek to amend the reference to "best practice" and "best management practice guidelines" to "good practice" and "good management practice guidelines," and state that using the term "best" is too ambitious with the current level of research undertaken.

434. Several submitters stated that best practice measures should be implemented now, not only in the future, given that declining water quality is already an issue and there are practices that have been shown to be effective in reducing contaminant losses which can be implemented now. HFM supports further research into methods to reduce discharges, however, acknowledges that there is sufficient knowledge to implement current best practice measures to improve water quality.

435. A number of submitters also identify the need for guidelines and landowner/occupier education and support to apply BMP. Submitters wish to have examples of BPOs, and Forest and Bird seek an amendment to the method so that it references new schedules that outline GMP and BMP and that these be incorporated into the relevant rules. Submitters agree that further research is required to improve water quality, and J Taylor requests that the method be amended to include provisions for independent, iwi-led science initiatives to collate data on drainage and plant-based water filter systems and their effectiveness.

436. Oji Ltd opposes the method in that it applies to forestry and other activities that have not been identified as high contributors of N and phosphorous. The submitter suggests that minimum standards are required, as opposed to guidelines and agrees that the reference to BMP is confusing as it differs to "best practicable option." The submitter requests that the method be amended so that it applies to agricultural activities only and that the term BMP is replaced with "best practicable option."

437. Other submissions state that more emphasis should be given to models used to define the NRP in Schedule B, that the concept of BMP needs to incorporate the net benefit test, in that current BMP does not consider cost effectiveness. Submitters request that this implementation method be expanded to cover both point source and diffuse discharges.

C4.2.12.3. Analysis

438. While the implementation methods as a whole are recommended to be deleted, if the Hearing Panel was minded to keep some of the implementation methods, this method supports the implementation of Policies 1 and 2 and the FEP framework in particular, and if it is to be kept it needs to be updated to reflect the final positioning on those provisions. At the request of the Hearing Panel, Officers can include appropriate wording in the final reply report.

C4.3. Policy 7 (future allocation)

C4.3.1. Background

439. This section of the report addresses submissions on Policy 7 of PC1. Policy 7 requires preparation for further diffuse discharge reductions and any future property or enterprise-level allocation of diffuse discharges of N, P, sediment and microbial pathogens that will be required by subsequent regional plans, by implementing the policies and methods in PC1. The policy focuses on the collection of information and research to prepare for these future reductions.

440. Policy 7 also sets out several principles that should be considered for any future allocation mechanism. These principles include the concept of land suitability, allowance for flexibility of development of tangata whenua ancestral land, minimising social disruption and costs and the use of new data and knowledge which may be gathered in future.

C4.3.2. Submissions and Analysis

441. In total, 239 submissions were received on Policy 7. Fourteen support the provision, 99 support the provision with amendments, 76 oppose the provision, 46 oppose the provision with amendments, and four did not state whether they support or oppose the provision.

442. For those submitters seeking to retain the provision, common reasoning relates to the view that Policy 7 is a necessary and important step towards improving water quality, and that future allocation decisions should take advantage of new data and knowledge[35]. Others support the use of land suitability for diffuse discharge reductions.[36]

443. The majority of submissions oppose the policy and/or seek amendments based on various concerns with the provision as currently worded. Several recurring themes are evident within this group of submissions, and are listed below as follows:

- Uncertainty for the future and economic implications;
- Future allocation based on a grandparenting approach and the use of Overseer;
- 'Everyone should be treated the same' (Māori land); and
- Appropriateness of the provision as a policy.

444. The Officers' acknowledge that some of the submission themes listed above have been discussed in previous blocks of the Section 42A Report. However, for the purpose of this section, the themes are discussed in relation to the submissions on Policy 7.

445. Several other miscellaneous submissions that are not easily categorised under the themes listed above are also discussed within this section.

C4.3.3. Uncertainty for the future and economic implications

446. One of the most common submission points on Policy 7 is in relation to the uncertainty it creates for the future and the implications of a provision trying to anticipate a set methodology for the allocation of nutrients in future.

447. Several submitters consider that Policy 7 creates too much uncertainty around future land use and the potential for capital devaluation, as well as an unwillingness for land owners to invest in other mitigations in the future, such as fencing required in other parts of PC1. Accordingly, the submitters consider that Policy 7 should be deleted in its entirety.37 J Bailey considers the staged approach in Policy 7 is confusing for farmers and does not provide enough certainty or flexibility to invest in mitigations best suited to a property. The submitter suggests that the meaning of the next stage is unknown, and it is unclear whether or not particular businesses will be included in future allocation and/or reductions. P Meier seeks amendments that ensure that any implementation plans are final, with clear standards and expectations to assist land owners with future planning.

448. Many submitters are concerned with the uncertainty in regard to how much land potentially has to go into forestry and/or native bush in future38. As such, the submitters consider this uncertainty will also result in an unwillingness for farmers to invest.

449. Some submitters consider Policy 7 severely restricts growth and innovation within farms and communities in order to give more time to gain scientific data to appropriately implement the

[35] FarmRight, Genetic Technologies Ltd,
[36] C and V Nicholson
[37] H G and S J Brooks, A H and N L Ewen, S, S, A and Ulrika Parrott, F B and D J Bartholomew and Tulloch
[38] K and K Babington, H G and S J Brooks, A H and N L Ewen

policy.39 Others are also concerned the lack of clarity in the provision for allocation will deter farmers from improving through fear of losing future land use options and therefore land value40. R E Clements opposes the provision with amendments and considers that it is unacceptable on multi-million-dollar businesses to assume that science will catch up at some stage to provide an accurate substitute to the Overseer model.

450. Several submissions are concerned with the limited understanding of land suitability, pre-determining the use of this approach without a plan of how this will be assessed, and what impact it may have on current or future land development investments.[41] For example, S and T Stark suggest hill country farmers may invest significantly in fencing and water reticulation only to be told in the next plan change that their land suitability is forestry.

451. Others oppose the provision as they consider there is no certainty past the 10-year period and no plans are able to be made beyond this timeframe. With no plans in place, it is considered that there will be implications for investment and management decisions, resulting in businesses being subject to higher risk of becoming financially unviable. As such, the submitters request the policy is amended to implement a longer time period that is more workable[42].

C4.3.4. Future allocation based on grandparenting approach/use of Overseer

452. A large number of submissions on Policy 7 express concern that future allocation, as anticipated by the provision, will be based on the use of a 'grandparenting' approach via the establishment of NRPs under Overseer.

453. This assumption is made on the basis that in considering future allocation, Policy 7 refers to the implementation of other policies and methods in PC1 (in which the establishment of NRPs is required) and requires the collection of information about current discharges, as well as the development and use of appropriate modelling tools to estimate contaminant discharges (e.g. Overseer).

454. Many submitters oppose the provision as they consider a grandparenting approach will result in low N leachers being penalised and losing flexibility, while those leaching higher amounts of N will be allowed to continue to pollute under this framework43. As such, they consider it is unfair to limit those who are low polluters and prevent them from keeping their farms viable and having the ability to invest in mitigation measures. Several submissions acknowledge the potential issue of high discharges having no incentive to reduce44. There is also concern throughout the submissions that the grandparenting approach sends the message that a high NRP provides flexibility for the future. As such, these submissions seek the deletion of the underlying NRP and Overseer approach within Policy 7.

455. Others note the likely significant economic implications, particularly for lower intensity farming systems such as hill country and sheep and beef farms which may be devalued as a result of being allocated less nutrients in future based on previous use[45]. The submitters consider that this will place more pressure on farming businesses and their communities moving forward.

456. Numerous submitters oppose the use of Overseer for allocation within Policy 7, are concerned with the variable accuracy of the model for different farm systems, and consider that the model

[39] B Cameron, D S Mackenzie
[40] Strang and Strang Limited
[41] Federated Farmers, FANZ, Ravensdown
[42] P and K Woods, T Williamson, G and J Jefferies
[43] J and J Alcock and Easton, J L and R J Ashby
[44] L Aston
[45] J Bailey

is not reliable or proven enough yet46. Others also note that the current methodology evident within the policy does not appear to address contaminants other than N.

457. Federated Farmers consider Policy 7 currently amounts to a de facto allocation mechanism, in that the NRP is liable to be rolled over into a permanent allocation mechanism. The submitter seeks amendments to Policy 7 that clearly state that the NRP is to be used solely for the purpose of determining those land users who need to reduce their nutrient discharges, and monitoring progress, but will not form the basis of any allocation regime.

458. Others are concerned that the policy doesn't provide any opportunity for nutrient trading or finding other mitigations, such as the balancing of land uses where some properties will be able to intensify in place of others that de-intensify. Several submitters also acknowledge that it is unfair that support is not provided to those that have 'done right by the environment' under the grandparenting approach47.

459. In relation to alternatives to grandparenting, many submissions consider that FEPs should be relied on instead for determining future allocation and land use capability. The use of FEPs is proposed to deal with farm-specific issues and determine the best methodology on an individual property basis. Others request a cap of 30 kg N/ha/yr is allocated for all farms48.

460. Large numbers of submissions also request the adoption of a sub-catchment approach for allocation. This approach alongside effective collaboration between WRC and other stakeholders, is proposed to address contaminants that are relevant to each farm and water body, rather than a blanket restriction of one particular nutrient. Others request the inclusion of natural capital and adaptive management provisions to be considered in future allocation[49].

C4.3.5. Everyone should be treated the same (Māori land)

461. Policy 7(b) provides for the allowance of flexibility of development of tangata whenua ancestral land as part of any future allocation, alongside other principles such as land suitability.

462. Several submitters consider this provision to be unfair and suggest each land owner should receive the same treatment50. Some of these submissions seek that clause b is removed entirely as it is considered that it may leave future generations with ethnic grievances, all rules should apply equally, and as working towards healthy rivers affects everyone, regardless of ethnicity.51

463. R Kay opposes the provision with amendments as they are concerned that the wording of the policy gives a sector of the community (Māori owned land) an advantage for future development. Similarly, G Pinnell suggest that providing for the development of ancestral lands for commercial use is unfair and could have economic implications for others who are denied this opportunity under Policy 6. The submitter and others consider that this will result in other landowners having to compensate further with additional mitigations to offset this development in order to meet future water quality targets52. As such, the submitters consider that if all landowners are treated the same then it would be easier for the collective reduction in nutrient loss.

[46] G J Briggs
[47] K and K Babington, J Bailey
[48] G J Briggs
[49] Awaroa Lands Ltd, J Bailey
[50] D P Anselmi, Jodean Farms, G Pinnell, M and K Sherriff and Tatham, Tirohanga Settlers and Sports Association
[51] W and K Oliver, B, J, K and J Osborne, M J Lumsden, Huirimu Farms Ltd, C and J Pickens and Tanneau
[52] J Reeves, J F Waterworth, L B Waterworth

464. G Kilgour also considers that the flexibility suggested in clause b of Policy 7 should be enabled on all land through a reasonable range of permitted activities and consideration of alternatives through the consent process if required.

465. DoC seek further clarification on the meaning of 'flexibility of development of tangata whenua ancestral land' as they consider the current wording does not provide enough certainty. As such, DoC request that Policy 7 is amended to clarify the meaning of clause b and how this part of the policy will be achieved. Forest and Bird also raise concerns with how this clause would be implemented and consider that it should be deleted as it is not effects-based.

466. Iwi of Hauraki seek Policy 7 to be amended to provide a clearer link to Policy 16, which provides appropriate bounds for the use and development of tangata whenua ancestral land. The submitter considers that this amendment will ensure that the use and development of this land is provided for in a manner that does not compromise giving effect to the Vision and Strategy.

467. Tangata Whenua do not explicitly reference clause b within the submissions but consider that re-allocating rights to discharge contaminants will likely provide development opportunities on multiple owned Māori and Treaty Settlement Lands.

C4.3.6. Appropriateness of the provision as a policy

468. Several submissions question the appropriateness of the provision as a policy within PC1.

469. Some submitters oppose the provision as they consider that it is inappropriate for a policy to prescribe what a future plan change should include[53]. As such, amendments are requested to remove references to future processes. Others also raise concerns that Policy 7 will have almost no weight given that the current plan cannot dictate what future plan changes will contain.[54] Siegling Farms considers that Policy 7 is beyond the scope of PC1 and seek that it is deleted in its entirety.

470. Ballance considers the provision is seeking to foreshadow a policy response that is subject to a separate planning process and section 32 evaluation in future. Others oppose the provision and state that it is premature and unnecessary to include reference to future allocation and for WRC to have a prescribed methodology and principles for allocation[55].

471. Beef and Lamb supports Policy 7 in part but suggest that the provision as written would be more appropriate as a method and seek relief to that effect. The submitter suggests that the policy should be amended to a method that supports the collection of data which may assist in future changes to allocation systems as further information becomes available, and as the science and modelling around land and water management develops. DairyNZ also consider that the wording of the policy is very operational and task focused, and effectively re-states Method 3.11.4.7. Oji Ltd also request the amendment of Policy 7 to be redrafted as a method.

472. DoC does not support the direction of Policy 7 as they consider it focuses on future mechanisms for allocation which effectively leaves decision making for future generations, which in the submitter's view, is contrary to section 5 of the RMA.

C4.3.7. Other submissions

[53] Ata Rangi, G Kilgour, FANZ, G Kilgour, Southern Pastures Limited Partnership, Waeranga Partnership
[54] New Zealand Forest Owners Association Inc, Strang and Strang Ltd
[55] Charion Investment Trust, Fonterra

473. Several submitters on Policy 7 request the inclusion of a 'polluter pays' principle for future allocation[56]. In relation to this concept, HortNZ propose removing clause c of Policy 7 and including a new clause incorporating the principle of polluter pays. HortNZ have proposed wording meaning that when assessed across the balance of contaminant discharges to water, those having the greatest effect bear a proportionally greater cost of the transition.

474. Hamilton CC oppose the provision in part and seek amendments to allow for urban growth undertaken to give effect to the WRPS.

475. Others request amendments to Policy 7 to ensure that PC1 gives effect to and is consistent with the terminology used within the Vision and Strategy and the NPS-FM[57]. On this basis, the submitters request footnote (5) within Policy 7 is amended to refer to 'desired water quality states'.

C4.3.8. Analysis

476. As the Officers understand it, CSG debated different allocation mechanisms at some length and ultimately decided 'allocation' should occur in future plan changes. Therefore, for PC1, CSG considered that a per property allocation should not occur. CSG did investigate allocation mechanisms in use elsewhere, including those based on a 'natural capital' approach. Officers understand that there was some attraction at the time to an allocation framework based on some form of 'land suitability' or 'natural capital', but that CSG considered there was inadequate information and certainty to incorporate that as part of PC1[58]. It is acknowledged that many submitters have sought some form of allocation framework based on land suitability or natural capital to be used in PC1.

477. Possibly as something of a compromise, PC1 sets out, in Policy 7 a preferred future framework for allocating contaminant losses on a per property basis, and a commitment to undertake research and information gathering toward that preferred approach.

478. It would appear clear from the submissions that the majority of submitters do not agree with that approach, or have difficulty with the framework proposed.

479. Officers consider that trying to predict what will be a suitable allocation mechanism for the future is challenging. Certainly, in the time since PC1 was notified with its allocation mechanism, a range of issues have arisen that would suggest that the policy and technical framework in a further 10 years or more may be quite different. For example, since PC1 was notified, central government have initiated a work stream to consider nutrient allocation frameworks with the possibility of a NPS or NES to implement it, there is now better understanding of the challenges of using Overseer or other models to predict water quality outcomes, a better understanding of attenuation processes between the root zone and waterbodies, and ongoing developments with respect to tangata whenua interests in water.

480. Policy 7 also establishes a level of community expectation, and it is likely that farming and business decisions could be made on the basis of the Policy, with a potentially unjustified expectation as to the framework for the future.

[56] A S Wilcox & Sons Ltd, B J Chapman, Chhagn Bros Co Ltd, HortNZ, Living Foods Ltd, Perfect Produce Co Ltd
[57] GBC Winstone, Fulton Hogan
[58] For example, see the Section 32 Report at pages 134 and page 136, regarding signalling this for the next plan change, and page 211 (about allocation based on land suitability but acknowledge information gaps), page 235 (overall conclusion - again about future allocation).

481. Overall, it is clear that any system that allocates property level discharge rights will need to be robustly reviewed at the time of its development, in light of the current legislative and technical knowledge and in recognition of the diversity of views on this topic from the community, which are only likely to increase as further detail around any allocation framework emerges.

482. Officers are concerned that Policy 7 and the associated implementation method are at best a statement of intent. Any future planning regime will be required to reassess a property level allocation mechanism, if indeed one is appropriate, without pre-judgement as to the best approach. In short, 10 years is a long time with respect to policy and technical advances in nutrient management and whether the framework established in Policy 7 is the best is not be able to be judged at this point in time.

483. Overall, Officers recommend that Policy 7 be deleted in its entirety, rather than adjusted to identify some other framework or made more general.

C4.4. Wetlands (Policy 15)

C4.4.1. Introduction

484. Wetlands are managed through the incorporation of provisions in PC1 specifically relating to Whangamarino Wetland. This is in addition to existing provisions on wetlands that are currently in the WRP. The management of wetlands is also briefly described in the Block 1 s42A Report.

485. The provisions of PC1 which relate to wetlands are Objective 6, Policy 15 and Implementation Method 3.11.4.4 Lakes and Whangamarino Wetland. It is noted that Objective 6 has been analysed in the Block 1 s42A Report. There are also several submissions received in relation to wetlands within the 'Additions to Glossary of Terms' in PC1. Other submissions, lodged to PC1 as a whole, in general seek greater emphasis on wetlands. Many submissions that were made generally to PC1 as a whole however they are the same or similar to submissions made to Policy 15, including the request of wetlands to be included in a schedule[59].

C4.4.2. Background – WRC management of wetlands

C4.4.2.1. Waikato Regional Plan (WRP)

486. Provisions for protecting and managing wetlands are contained throughout a number of chapters of the WRP. Specific reference to wetlands is included in chapters relating to water management, river and lake bed structures and disturbances, and land and soil. Chapter 3.7 is the chapter specific to wetlands. Activities that are managed through this chapter include the creation of new drains and deepening of drain invert levels and the drainage of wetlands.

C4.4.2.2. Lake Waikare and Whangamarino Wetland Catchment Management Plan

487. A non-statutory catchment management plan (CMP) for Lake Waikare and Whangamarino Wetland has been developed, which was made available in 2018 and forms part of a broader lower Waikato zone management planning and implementation work programme. The Vision and Strategy was the key document in framing the collaborative catchment management plan approach. The purpose of the CMP is to conserve, enhance and, where appropriate, restore the river, land and wetland environment through effective land, water and resource planning across the Lake Waikare and Whangamarino wetland catchment; through a coordinated, collaborative

[59] V & N van der Voorden, M Hamilton, Whaingaroa Environmental Defense Incorporated,

approach60. This CMP was initially developed to best address sediment sources impacting on the wetland, as well as the wider range of issues in the catchment, including the lake's water quality and biodiversity.

488. The Lake Waikare and Whangamarino Wetland Catchment Management Plan in in two parts. Part one covers the catchment description and characteristics, statutory, policy and institutional framework, key catchment issues and opportunities, strategic aims and objectives and monitoring, review and reporting. This part is to be reviewed every 10 years. Part two covers the implementation and action plan framework, and funding partnership opportunities and is to be reviewed every three years. Part two identifies five management areas which are the basis for the implementation of the CMP. A strategic aim for each management area is set out, which is an aspirational statement for the next 80 years. This timeframe matches 80-year timeframe in PC1.

489. A range of actions have been developed in the CMP, which includes work already commenced, new identified projects and additional catchment scale assessment that could assist to inform future actions. The actions have been grouped into three themes: Catchment wide strategy, technical projects and processes, on the ground implementation

490. Of the catchment wide strategy, the below actions have already commenced:

- Develop a catchment pest animal/fish management strategy
- Identify and document existing key areas for high priority protection and/or enhancement for biodiversity.
- Fish passage strategy, trials and monitoring

491. Of the Technical projects and processes, the below actions have already commenced:

- Undertake a review of existing water take resource consents and current applications
- Investigate the merits for Lake Waikare to be used as a storage facility for irrigation and other water uses
- Infrastructure sustainability
- Catchment and lake monitoring under the Lake Waikare Northern Operating Control Gate Section 128 review
- Identifying interventions to protect and restore the Whangamarino Wetland
- Investigating Maanuka-dominated ecosystems to improve water quality

492. Of the on the ground implementation actions, the below actions have already commenced:

- Implementation of basic best practiced catchment management works and practices including beyond a soil conservation focus
- Matahuru catchment hill country and stream bank erosion protection and remediation
- Lake Waikare Northern Foreshore wetland restoration project

493. Some of the above actions are WRA funded projects, there are also other actions identified in the action plan that are new actions still to be commenced. Also, some new actions have been included in the CMP from the Waikato and Waipā River Restoration Strategy, due to the robust way these actions were developed. However, many actions are already in place to address key issues with Lake Waikare and Whangamarino Wetland.

[60] Lake Waikare and Whangamarino Wetland Catchment Management Plan: Part One - Catchment Background

C4.4.3. Policy 15

494. Policy 15 seeks to protect and to make progress towards restoration of Whangamarino Wetland by reducing discharge of the four contaminants in the sub-catchments that flow into the wetland. This is to ensure that loss of the bog ecosystem is reduced and minimised, mahinga kai availability is increased and to support implementation of any catchment plan prepared in future by WRC that covers Whangamarino Wetland.

C4.4.3.1. Submissions

495. In total there are 45 submissions on Policy 15. Thirteen submissions support Policy 15 and request it is retained[61]. Several submitters request Policy 15 is retained, however they also suggest that all contributors to water quality in the wetland should be included and therefore some request Policy 15 is amended to be holistic and include all sources influencing the health and well-being of the rivers62.

496. J Lawson suggest all wetlands present in the PC1 area should be included in a schedule with appropriate criteria so that wetlands that have not yet been assessed can be considered 'significant' at least from an ecological viewpoint pursuant to Section 6(c) RMA where they meet those thresholds.

497. Save Lake Karapiro Inc and A Robson oppose Policy 15 as they consider the language is ambiguous and that an actual commitment to restoration from current state should be made. They consider it may not be full restoration back to original but wording 'make progress towards restoration' does not necessarily mean any restoration at all. Beef and Lamb requests Policy 15 must ensure water quality and habitat is maintained where it currently meets the water quality outcomes/objectives and or values and to improve where it does not meet them.

498. PLUG requests clause (c) is amended to include ‘stakeholders’ to those who may prepare a catchment plan that covers Whangamarino Wetland as well as WRC.

499. G Kilgour requests Policy 15 recognises that there is a lag in water quality due to percolation of water associated with historic land uses and reductions in discharges may not always be possible due to the historical land use discharges. He also requests it is clarified what constitutes a ‘bog’ ecosystem.

500. Five submitters[63] request amending the first sentence and clause (a) to strengthen the wording and provide clear and certain direction for the wetland. These amendments are as read below:

> *Protect ~~and make progress towards restoration of~~ and restore the Whangamarino Wetland by reducing the discharge of…*

501. DoC request further amendments to clause (a), to read:

> *…a. ~~Reduce and minimise~~ avoid further loss of the bog ecosystem; and…*

502. DoC also considers that there is a narrow focus for wetlands in PC1 and PC1 does not recognise all the important wetland values and the complex nature of Whangamarino Wetland. They

[61] DoC, Fish and Game, W Smith, Wairakei Pastoral, WRC, A Millington, Wairarapa Moana Incorporation, NZTA, J Reeves & A Taylor, B Ward, S Purdie, C & J Rombouts, D Dean.

[62] J Roberts, Woodacre Partnerships, D, Y and L Yule, A Logan, L Shaw & B Hall, C Buckley, D Mackenzie, B Cameron, M Muir, A & G Wilcox, C & V Nicholson, P Buckley, M & R Twining, G Holmes, R Walker, Daniel Jefferis, S Goodwright,

[63] DoC, Fish and Game, Waikato and Waipa River Iwi, Tūwharetoa Māori Trust Board, Te Whakakitenga o Waikato Incorporated (Waikato-Tainui)

request Policy 15 is amended to refer to the short and long-term restoration of the Whangamarino wetland to achieve environmental targets to:

- reduce sediment deposition, including to the swamp, marsh, fen and bog wetland types
- reduce P loads to the wetland
- ensure water levels are ecologically appropriate in that they do not exacerbate water quality effects, and also protect critical habitats
- ensure any impacts of the Lower Waikato/Waipā Flood Control Scheme are avoided, remedied or mitigated so as not to adversely affect the sustainable management of the Whangamarino wetland
- promote the natural succession of the wetland system, allowing for natural peatland (bog) development (no further loss of bog).

503. Federated Farmers request Policy 15 is amended to read:

> *Maintain, restore and/or protect ~~and make progress towards restoration of~~ Whangamarino Wetland to assist with giving effect to the Vision and Strategy and values^ by 2096 through the implementation of a tailored approach guided by a catchment plan prepared by Waikato Regional Council in consultation with the community, which will include collecting and using data and information to support the management or coordination of activities in the sub-catchments that flow into the wetland. ~~by managing and/or reducing the discharge of nitrogen, phosphorus, sediment and microbial pathogens in the sub-catchment that flow in the wetland to: …~~*

504. They also request clauses a, b and c are deleted as Federated Farmers have concerns that the clauses predetermine a sub-catchment management planning process.

505. Fish and Game request the following amendments:

> *a. Reducing the discharge of nitrogen, phosphorous, sediment and microbial pathogens in the sub-catchments that flow into the wetland ~~to~~; and*
> *b. ~~Reduce and minimise~~ Avoiding further loss of the bog ecosystem; and*
> *c. Managing the hydrological regime including the impacts of the Lower Waikato Waipā Flood Control Scheme, to:*
> *a. Restore and protect wetland values within the Whangamarino Wetland complex; and*
> *b. Provide increasing availability of mahinga kai; and*
> *c. ~~Support implementation of any~~ Implement a catchment plan prepared in future by Waikato Regional Council that covers Whangamarino Wetland.*

506. Fish and Game also suggest Policy 15 needs to encompass the restoration and protection of all of the important wetland values and types within the Whangamarino Wetland complex, include specific short-term and long-term targets for restoration and expand the focus to include the effects of changes in extent and hydrology.

507. Three submitters64 consider Policy 15 must provide meaningful direction that results in mitigation measures being put in place that would collectively achieve 10 percent towards achieving Te Ture Whaimana and therefore request the below amendments to clause (c):

[64] Waikato and Waipa River Iwi, Tūwharetoa Māori Trust Board, Te Whakakitenga o Waikato Incorporated (Waikato-Tainui)

c. ~~*Support implementation of any*~~ *Provide the necessary resources to fully implement the catchment plan prepared* ~~*in future*~~ *by the Waikato Regional Council that covers Whangamarino Wetland*

508. Ravensdown considers the focus should be on the wetland itself not the sub-catchments which flow into it, as they have not been clearly identified within PC1, therefore the implications and requirements on resource users are not clearly identified. They also request the policy focuses on restoration rather than protection as that is consistent with Objective 6. Balle Bros request: pest fish species are identified as a contributor; ensure that contaminant loads both entering and leaving Whangamarino Wetland are consistent with the achievement of the water quality attribute targets in Table 3.11.1; and ensure WRC provides funding to support the implementation of a catchment plan.

C4.4.3.2. Analysis

509. The Officers do not agree with the request by Ravensdown to focus on the wetland itself and not the sub-catchments that flow into the wetland. Prioritising the sub-catchments that flow into and through the wetland as Priority 1 will be critical to the significant work needed to achieve the outcomes anticipated by the objectives.

510. In response to those submitters65 who request Policy 15 is more holistic and includes all sources of contaminants, PC1 focuses on the reduction of diffuse discharges of N, P, sediment and microbial pathogens. Subject to decisions made on these matters resulting from the Block 1 hearing, the Officers do not recommend that these submissions are accepted, as other sources of contaminants are generally out of scope of PC1.

511. The Officers agree with River Iwi and others that Policy 15 needs to provide meaningful direction that results in measures put in place to achieve "10%" in the short-term. However, the Officers consider the amended provisions requested by the submitters do not provide any further direction or require more than what is currently proposed. Therefore, the Officers do not recommend the amendments be adopted.

512. The Officers consider that clause (c) provides for the important wetland values and the complex nature of Whangamarino Wetland. For example, the wetland plays a significant role in the Lower Waikato River Flood Control Scheme. Without careful management of this scheme and its effects on the wetland, the full range of wetland types present in the wetland will continue to degrade with potential loss of bog ecosystems in particular. The preparation of catchment management plans for these environments and areas are critical management approaches to ensuring these wetlands values are not degraded66. It was accepted during the preparation of PC1 that wetland values could be considered within the context of the wider Lower Waikato FMU, and the limits for the whole catchment of the wetland set to protect the most fragile component of the FMU, rather than setting this specific area as a separate FMU67.

513. Policy 15 identifies the need for integrated management to ensure the wetland is protected as a matter of national importance, whilst taking into account its role as part of the Lower Waikato-Waipā flood control scheme. The Lower Waikato-Waipā flood control scheme has considerably degraded the Whangamarino Wetland since the implementation of the scheme, through poor water quality, modified hydrological regimes and invasion of pest plants and animals. It is

[65] Submitters referenced in footnote 2 and Balle Bros

[66] Waikato Regional Council 2016. Memo re Whangamarino Wetland. Memo for the Collaborative Stakeholder Group Focus Day 26-2-2016- for discussion dated 26-2-2016. Doc 3702341

[67] Campbell D 2016. Should the Significant values of the Whangamarino Wetland be protected by establishing a wetland FMU. Discussion document for HRWO CSG 27-1-2016

understood a review of this scheme is being undertaken as noted in the CMP. The Officers consider this is a significant issue however, the management of this Scheme and its impacts on the wetland should be through the more flexible CMP and resource consent regime, not through PC1.

514. The Officers do not agree with the Federated Farmers request to exclude the management and reduction of discharges of N, P, sediment and microbial pathogens in the sub-catchment that flow into the wetland and to only rely on the CMP to inform the management of activities surrounding the wetland. The Officer's consider implementing PC1 in wetland areas whilst also implementing the CMP is an appropriate way to restore and protect the wetland.

515. The stakeholders involved in the development of the CMP for Lake Waikare and Whangamarino Wetland included Lower Waikato Catchment Committee representatives; DoC; Auckland/Waikato Fish & Game Council; the farmer-led Primary Stakeholders Catchment Trust; Waikato District Council; and Watercare. Further feedback was provided by the community on the final draft through an online survey or similar68. Much of what Federated Farmers seek to be changed in Policy 15 has already been developed, giving effect to part of the relief sought.

516. With regards to relief sought by Fish and Game, analysis of Objective 6 concluded that long term restoration and short-term protection of the wetland is set out in part (a) of Objective 6 and Objectives 1 and 3 of PC1. The Officers also consider Policy 15 makes specific reference to the long term and short-term restoration by reducing the discharges of the four contaminants in the sub-catchments that flow into the wetland. Parts (a), (b) and (c) of Policy 15 set out the ways in which restoration can be achieved. As the relief sought is already set out in PC1 and the WRPS, the Officers do not recommend this point is accepted.

517. In response to M Hamilton and J Lawson, the NPS-FM requires Councils to undertake a values setting process to enable the identification of outstanding freshwater bodies which includes the significant values of wetlands. This process is occurring through the WRP Review and is separate to the PC1 process. Therefore, the Officers consider the relief sought inappropriate in relation to PC1 and therefore recommend these submission points are rejected.

518. For clarification in regards to relief sought by G Kilgour, Officers do not consider it necessary to define a 'bog' wetland. The book Wetlands of New Zealand[69] has an excellent description of the many types of wetlands in New Zealand, if greater clarity is needed.

C4.4.4. Additions to Glossary of Terms

C4.4.4.1. Submissions

519. Several submissions were received in relation to wetlands within the 'Additions to Glossary of Terms/Ngā Āpitihanga ki te Rārangi Kupu' in PC1.

520. Fonterra seeks a definition for 'effective hectares' which, within the submitter's proposed wording, specifically excludes 'protected wetlands'. Consequently, the submitter also requests a definition for 'protected wetland' as follows:

> *"For the purpose of the definition of 'effective hectares' means a wetland that is fenced to exclude stock or which is legally protected by a rule in a district or regional plan, condition of resource consent or other legally binding instrument such that it cannot be lawfully*

[68] https://www.waikatoregion.govt.nz/council/policy-and-plans/plans-under-development/lake-waikare-and-whangamarino-wetland-catchment-management-plan/

[69] Wetlands of New Zealand – A Bitter-sweet Story, Janet Hunt, 2007 at pages 22-23.

grazed, drained, cleared or otherwise modified without the consent of a local authority or third party and for which no such consent has been issued. This definition excludes any wetland constructed for the purpose of mitigating the effects of agricultural discharges on water quality."

521. J M Hahn requests the addition of a definition of 'wetlands' to read:

"Wetland (functioning wetlands in past 5 years) and is 4% of wetlands catchment or portion there of when in intensive land use."

522. Mangakotukutuku Stream Care Group Incorporated opposes the current definition of wetland within the WRPS as it has no reference to spatial extent and relies on the area 'supporting a natural ecosystem of plants and animals adapted to wet conditions'. The submitter states that this is an issue if wetlands have been degraded over time and questions the need to provide for both plants and animals. As such the submitter requests that the WRPS definition of wetland is amended as follows:

"Wetland included permanently or intermittently wet areas, shallow water, and land water margins that support ~~a natural ecosystem of~~ plants~~and animals~~that are adapted to wet conditions and may include bogs, wet gully bottoms, swamps and seeps."

523. C A L and T A Neal state that the definition of the term wetland is opposed as it is not clearly defined and open to wide interpretation, which potentially leads to excessive loss of grazeable land. No specific decision is sought.

524. WRC seek a new definition for the term 'wetland' stating that areas that were formerly natural wetlands may no longer support a natural ecosystem of plants and animals following repeated grazing. As such, the submitter argues that almost every wetland on a farm that has been grazed is not a 'natural ecosystem' and therefore outside of the definition and contrary to the intent of PC1. On this basis, WRC seeks a new definition for wetland to read:

For the purposes of Chapter 3.11 includes permanently or intermittently wet areas, shallow water, and land water margins that support ~~a natural ecosystem of~~ plants ~~and animals~~ that are adapted to wet conditions."

525. WRA also suggest that the definition of wetland be broadened to ensure that degraded wetlands are captured. The submitter recommends the adoption of wording similar to WRC's submission for the definition. Watercare are concerned that wetland provisions could be applied to constructed and engineered wetlands associated with water and wastewater infrastructure. The submitter considers that these should not be considered natural wetlands. On this basis, Watercare request a definition of wetlands is added that specifically excludes constructed and engineered wetlands for the management and treatment of contaminant discharges.

C4.4.4.2. Analysis

526. The Officer's note that the definition of wetlands is the definition as the RMA and the WRP. It is also noted that this definition is applied across the whole region and relief sought to amend the definition in PC1 would only apply to the Waikato and Waipā catchments and would be inconsistent with the rest of the region. The WRPS definition of wetlands includes the RMA definition however goes further and includes wetlands in the Coastal Marine Area. Given this consistently used, RMA-based definition, Officers do not recommend any changes.

C4.5. Policy 17

527. This section of the report is on submissions on Policy 17. Policy 17 encourages consideration of the wider context of the Vision and Strategy. It supports actions now to enhance biodiversity, wetland values, ecosystem functioning, access, and recreational values that are part of the wider goals of the Vision and Strategy.

C4.5.1. Submissions

528. In total there were 78 submissions on Policy 17. Fifty-six submitters support Policy 17. Many that request Policy 17 is retained also consider PC1 should be withdrawn until the review of the Vision and Strategy has been completed. Reasons for support include:

- Enhancing access and recreational values
- Opportunities to advance aspects of the Vision and Strategy that are not directly addressed in PC1
- Providing the policy framework to improve water quality for the benefit of the region
- Better achieving the objectives of the Vision and Strategy
- Providing workable steps in improving fresh water quality
- Giving effect to the Vision and Strategy

529. Eight submissions oppose Policy 17 and request it is deleted[70]. The submitters consider that Policy 17 is costly, out of scope of the Vision and Strategy or PC1, it is not related to managing discharges to water and if PC1 is 'done properly' then consideration of the wider context is not needed. Some submitters suggest that if there are to be matters outside the scope of PC1 included, this should also include koi carp, pest control and maintenance. J Weake suggests Policy 17 should provide for pest fish eradication and that sediment and microbial pathogen mitigation should only be required once pest fish are eradicated from waterways. W and K. Oliver suggest that there should be transparency about who pays for biodiversity and wetland enhancement, including through rates. G. Verkerk requests that expanding the region's wetlands should be managed at a sub-catchment planning level.

530. Lumbercorp NZ Ltd and New Zealand Steel Ltd suggest adding in reference to the four contaminants, as will provide consistency of approach and clarity for PC1 implementation.

531. New Zealand Steel Ltd also suggest that Policy 17 has the potential to allow Council to unreasonably apply conditions unrelated to direct effects from activities, and therefore Policy 17 should be amended to limit expectations of enhancement, being within the same sub-catchment or FMU. Matamata-Piako DC and South Waikato DC suggest Policy 17 could provide unreserved scope to influence decisions on resource consents. They request that if Policy 17 is adopted, it needs to be amended to make the intention and scope of the policy clear.

532. DoC and Fish and Game consider this Policy implies opportunities to enhance biodiversity values and manage access and recreational values and ecosystem health and wetland values are secondary benefits. DoC requests an amendment to reflect the clear direction provided in the RMA, the NPSFM and the Vision and Strategy. They also seek all reference to the wording 'secondary benefits' is deleted. Fish and Game seek that clause (a) is removed if Policy 17 is to remain or to amend Policy 17 to clarify that these are primary considerations/values integral to Chapter 3.11 and should not be considered secondary benefits.

[70] Federated Farmers (2), Theland Tahi Farm Group Limited, Waeranga Partnership, D Coles, M Wallace, S & T Stark, Black Jack Farms.

533. Federated Farmers suggest deleting Policy 17 and replacing with the words:

> *Eradicate pest fish from waterways prior to landowners paying mitigation costs to reduce sedimentation and microbial pathogens, and improve water clarity; all of which are undermined by the presence of koi carp in our waterways*

534. Fletcher Trust and Charion Investment Trust suggest new science, methods and ideas should be incorporated into Policy 17 as farming practices will benefit from this addition.

535. Oji Ltd suggests amending Policy 17 so that consideration of the wider context of the Vision and Strategy only applies to diffuse discharges, as point source discharges generally require resource consent, which is authorised under other parts of the Regional Plan.

C4.5.2. Analysis

536. The Vision and Strategy is a statutory document and the primary direction setting document for the Waikato and Waipā Rivers. The Officers recommend rejection of all submissions that request reference to the Vision and Strategy is deleted. The existing WRP was evaluated against the Vision and Strategy and it was identified changes were required to give effect to it, including in a wider context71.

537. Submissions which seek to narrow Policy 17 or relate it to specific matters are, in the Officers' opinion, inappropriate and inconsistent with the Vision and Strategy. The wider goals which fall outside of the scope of PC1 are relevant matters of environmental, cultural and social value that will arise from the implementation of Chapter 3.11 and not matters which enhance specific activities or address other sources of contaminants. PC1 has been developed to give effect to the Vision and Strategy and therefore narrowing the scope of Policy 17 would be, in the Officers' view, inconsistent with the Vision and Strategy.

538. Officers agree with submissions which suggest that the wording of 'secondary' benefits may imply that the values and matters of the wider context of the Vision and Strategy are not of primary concern. Although this may not be the intent of the word secondary in this context, it is accepted that this may cause confusion. Therefore, there may be benefit in deleting the word secondary to show the importance of those matters and values, which is also consistent with the NPS-FM.

539. Chapter 3.11 sets out policies and methods that restrict diffuse and point-source discharges to land or water. This includes policies and methods to restrict farming activities, restoration and protection of Whangamarino Wetland, and management of point-source discharges. While there may be valid arguments that the 'scope of PC1' is just the four contaminants, the Officers consider that opportunities to recognise co-benefits and other opportunities for enhancement ought to be included. It would seem appropriate to make the most of opportunities to advance the Vision and Strategy outcomes in other ways.

540. The Officers also consider that the policy could also be of benefit to resource consent applicants in that it provides policy support for the wider consideration of the benefits of additional environmental, access and recreational benefits along with the environmental effects of the activity being applied for.

C4.5.3. Recommendations

[71] Opus International Consultants Ltd 2013. Review of Waikato Regional Plan against the Vision and Strategy for the Waikato River. Document# 2900240

541. Amend Policy 17 as follows:

> *When applying policies and methods in Chapter 3.11, seek opportunities to advance those matters in the Vision and Strategy and the values^ for the Waikato and Waipā Rivers that fall outside the scope of Chapter 3.11, ~~but could be considered secondary benefits of methods carried out under this Chapter~~[72], including, but not limited to:*
>
> *a. Opportunities to enhance biodiversity, wetland values^ and the functioning of ecosystems; and*
>
> *b. Opportunities to enhance access and recreational values^ associated with the rivers.*

C4.6. Enterprises (inc defn of enterprise)

C4.6.1. Background

542. Enterprise is defined within PC1 as follows:

> ***Enterprise/s:*** *means one or more parcels of land held in single or multiple ownership to support the principle land use or which the principle land use is reliant upon, and constitutes a single operating unit for the purposes of management. An enterprise is considered to be within a sub-catchment if more than 50% of that enterprise is within the sub-catchment.*

543. Enterprise is referenced throughout PC1 in numerous policies, implementation methods, rules, schedules, tables and other definitions.

C4.6.2. Submissions

C4.6.2.1. Definition of 'enterprise'

544. In total, 41 submissions were received on the definition of enterprise. Thirty-one support the definition with amendments, three support the definition, five oppose the definition with amendments, one opposes the definition, and one does not state whether they support or oppose the definition.

545. Some consider the definition is unclear and lacks certainty73. Several of these submitters express concern as to whether properties that are interdependent on each other or resources, or those that fall under the same ownership but operate independently, will be captured74. On this basis, the submitters seek that the definition is amended to apply only to properties that are under the same ownership and are operationally dependent on each other.

546. Others suggest that the terms 'property' and 'enterprise' are interchangeable such that when applying the provisions within PC1 it is open to a person which term is selected75. The submitters consider that the definition should include the totality of its land holding within a sub-catchment which is under the ultimate common control of one entity. Pamu Farms note that several of the terms used within the definition are unclear and considers there is uncertainty in relation to how different support blocks and land are to be considered. Relief is sought to clarify and allow for further analysis of the refined term, its application and implications.

[72] DoC PC1-10746 and Fish and Game PC1-10906
[73] A McGovern, G Kilgour, Waipapa Farms Ltd and Carlyle Holdings Ltd, Pamu Farms
[74] A McGovern, G Kilgour, Waipapa Farms Ltd and Carlyle Holdings Ltd
[75] Ata Rangi 2015 Limited Partnership, Southern Pastures Limited Partnership

547. Genetic Technologies Limited consider that to effectively manage contaminants, all parcels of land comprising an enterprise must be located within the same sub-catchment. Others consider that if an enterprise falls within more than one catchment, this should only be considered as one enterprise where the land parcels are contiguous[76]. Taupō Lake Care Incorporated seek the provision of an acceptable method catering for enterprises that cross catchment borders. Federated Farmers seek further clarification within the definition as to why sub-catchment classification provisions are included.

548. WRC notes that the definition creates uncertainty as to the scale and numbers of 'properties' which can be considered an 'enterprise' and does not explicitly confine all of the enterprises' properties and/or parcels of land within the Waikato/Waipā River Catchment. The submitter seeks amendments to the definition to clarify the scope and nature of an enterprise, allow for minor grammar corrections, and to note that the provision relates to Chapter 3.11. Additionally, WRC suggest that the wording of the definition does not cater for a situation where an enterprise spans over three or more sub-catchments. Therefore, the following amendment is proposed:

> *An enterprise is considered to be within a sub-catchment if <u>the greatest proportion</u> ~~more than 50%~~ of that enterprise is within the sub-catchment.*

549. HortNZ considers that the definition should be amended to recognise that the activity may involve parts of parcels of land to reflect leasing arrangements, and that all relevant primary production activities should be accounted for as land use activities are likely to vary with the nature of an enterprise. The submitter also seeks the deletion of the sub-catchment reference, noting that CVP activities typically occur across more than one sub-catchment and the ability to do so should be provided for.

550. Tangata whenua and P McLean support the definition but consider that it should be more consistent with the farm model section of Table 1 in Schedule B of PC1, that expressly instructs the inclusion of the entire enterprise for calculating the NRP. Therefore, the submitters seek the inclusion of 'associated land uses' within the definition. Forest and Bird, Poukani Trust and Miraka Limited support the definition as notified and seek that it is retained.

C4.6.2.2. Application of 'enterprise' within rules

<u>Rule 3.11.5.2</u>

551. Several submitters are concerned with the use of 'enterprise' within permitted activity Rule 3.11.5.2.

552. Rule 3.11.5.2(3)(a) reads:

> *3. Where the property area is less than or equal to 20 hectares:*
> *a. The farming activities do not form part of an enterprise being undertaken on more than one property; and*

553. G Kilgour seeks that Rule 3.11.5.2(3)(a) is amended to clarify and improve the definition of an enterprise as rural properties are often inter-dependent on each other for resources such as feed. Others also consider it to be a nonsensical condition and state that it is unclear whether certain properties would be captured[77].

[76] Ata Rangi 2015 Limited Partnership, Southern Pastures Limited Partnership
[77] A McGovern, Waipapa Farms Ltd and Carlyle Holdings Ltd

554. P Lean opposes Rule 3.11.5.2(3)(a) as they consider where an activity forms part of an enterprise on more than one property, and is less than 20 hectares, activities on other properties should not be of concern as the total area is not more than 20 hectares. WRC also identify this issue and seek relief within the condition to include *"unless the enterprise has a total area of less than or equal to 20 hectares"*.

555. Matamata-Piako DC and South Waikato DC seek that the provision is amended to specify that it is limited to enterprises within the Waikato River and Waipā River catchments. M D and A J Sellars consider that covering farming activities which form part of an enterprise over more than one property, negatively impacts the landowner where the part of the enterprise operating on their land would otherwise be permitted.

556. Others state that it is unclear how PC1 deals with changes in property boundaries and the land areas covered by enterprises. The submitters are concerned that it is unclear how changes through subdivision, amalgamation, leases and enterprises themselves are to be addressed[78].

Rule 3.11.5.4

557. Several submissions were also received on the application of 'enterprise' within controlled activity Rule 3.11.5.4.

558. Federated Farmers consider it to be unfair to allow enterprises to move N around prior to sale or subdivision and that the NRP should run with the land and be re-calculated at the time of subdivision for all lots.

559. Genetic Technologies Limited are concerned about the complications around the lease of land within enterprises. The submitter considers that if lease changes hands from one business to another within the period of the consent, then it will be difficult and expensive for the next enterprise to incorporate the new property into its existing FEP.

560. WRC note that where a property is part of an enterprise, it is not clear who owns the NRP. The submitter considers that it can not attach to both as that would double-count N leading to an increase in diffuse N loss over time. WRC note the concepts behind assigning a NRP either associated with a piece of land or within an entity are fundamentally different and incompatible with each other. The submitter considers that the concept of associating an NRP with an enterprise, and the corresponding ability to exercise that NRP anywhere on any other piece of land raises practicality issues. WRC seeks amendments to Rule 3.11.5.4 to delete the ability for an enterprise to hold a NRP.

561. Similar to Rule 3.11.5.2, Waipā DC and Waitomo DC seek clarification as to how changes in property boundaries and lease arrangements with properties and enterprises will affect compliance with rules. Others seek to retain the flexibility to move the NRP across enterprises in the same sub-catchment[79].

C4.6.3. Other relevant submissions

562. Four submissions received in relation to 'Additions to Glossary of Terms/ Ngā Āpitihanga ki te Rārangi Kupu' are also relevant to this topic. Miraka Limited and Poukani Trust note that there is no definition of property within PC1, the RMA, NPS-FM, or the WRPS. The submitters seek the inclusion of a definition given the importance of the term.

[78] Waipa DC, Waitomo DC
[79] B K Waterworth, J F Waterworth, S Waterworth

563. Wairarapa Moana Incorporation also highlight the lack of a definition of property and propose the inclusion of the term subject to the following wording:

> *"One contiguous block of land owned by one common owner".*

564. Federated Farmers also request a new definition of 'farm enterprise' to be included as follows:

> *Farm enterprise: For the purposes of Chapter 3.11, means the property upon which or enterprise within which farming activities are undertaken.*

C4.6.4. Analysis

565. Submitters have identified that the term "enterprises" is both defined very broadly and used somewhat interchangeably with "property". In some parts of PC1, such as Policy 7, it would appear that "enterprise" is used in a way that includes "property", whereas in the rules it is generally used in a way that implies an "enterprise" is different to a "property". Officers note that the definition would include a single property in single ownership as well as multiple properties in multiple ownership, and therefore effectively includes all properties.

566. Given the various usage of the term in PC1, Officers consider that both the definition and usage of the term lacks certainty and clarity. Officers note that a consequential amendment to the definition of "property" within the WRP is provided for in PC1. The amended definition reads:

> *"For the purposes of Chapters 3.3, ~~and~~ 3.4 and 3.11 means one or more allotments contained in single certificate of title, and also includes all adjacent land that is in the same ownership but contained in separate certificates of title. For the purpose of Rules 3.11.5.3 and 3.11.5.4, a property is considered to be within a sub-catchment if more than 50% of that property is within the sub-catchment."*

567. Despite this, confusion in the application of the two terms in PC1 is still evident. The context for the definition of enterprise is strongly related to its usage in the policies and rules. If the treatment of enterprises and properties is intended to be different, then mutually exclusive definitions are appropriate.

568. However, Schedule B still requires a "property or enterprise" to calculate an NRP. Some submitters have identified concerns with the ownership of the NRP for enterprises, and the ability for N to shift between multiple non-contiguous blocks and/or properties. Officers agree that there are fundamental issues with the notified provisions in relation to who "owns" the NRP where an operation comprises more than one property and land owner. The ability for N to shift geographically over time rather than being "fixed" to land is also problematic.

569. On this basis, Officers consider that there is limited value or benefit in the concept of "enterprises" and distinguishing these operations from "properties" for the implementation of the policies and rules. Therefore, Officers recommend that all references to the term "enterprise" are removed from PC1.

570. Officers consider that retaining the reference to "property" within PC1 is appropriate and ensures consistency with other provisions. For example, Schedule A requires properties to be registered. For implementation purposes, requiring each property to be registered under the same ownership is practical and ensures that all land is accounted for. Calculating NRPs on a property basis will also ensure that N is "fixed" to the relevant properties and is not able to be shifted between multiple non-contiguous blocks over time as land is sold or purchased.

571. It is acknowledged that the definition of property excludes non-contiguous allotments. However, Officers note that this does not preclude the ability for a person or entity to apply for several properties to be included under one consent and FEP. Officers acknowledge that there may be difficulties in this approach from a consent processing and enforcement perspective but the individual circumstances and scale of the proposals will determine the viability of these applications.

572. Officers consider that the usage of property is largely consistent with the rule structure as recommended in the Block 2 report. However, Officers are also aware that some minor inconsistencies remain between references to "land", "land used for farming", and "property" in the rules. From an implementation perspective, Officers consider it necessary to clarify which provisions should apply on a property basis, and those that are limited to the area of land used for farming. Therefore, amendments are recommended to "tidy up" the rule structure and provide greater consistency between the usage of the terms.

573. In the Officers' view, registration, FEPs, and NRPs should all be required at the property level. As such, this should generally be reflected in the provisions of PC1. However, Officers consider that in relation to other provisions, the reference to property is not appropriate or relevant to the intent of the rules. Rules 3.11.5.2B and 3.11.5.2C contain thresholds based on the area of "the property". Officers consider that these conditions should instead refer to "the use of land for farming" to capture the area of land that is subject to the rule. For example, as the rule regulates the use of land for farming but not forestry, Officers are of the view that a 19-hectare grazing block should be treated the same as a 50-hectare block consisting of 19 hectares grazing and 31 hectares forestry.

574. The Block 2 report did not make recommendations with respect to "enterprise", there being a general recognition that the definition of enterprise and how enterprises are managed could have had an overlap with the sub-catchment planning submissions. Setting that aside, Officers consider that enterprises can at times be complex, particularly in terms of the management of discharges of the four contaminants, uncertainty with respect to assigning NRP loss rates or other contaminant losses, and the application of FEPs. These matters are particularly pertinent when a piece of land may enter or leave an enterprise.

575. If the Hearing Panel was of a mind to continue to use "enterprises", Officers consider that the complexity of management make it unlikely that a permitted or controlled activity status would be appropriate for an enterprise. A restricted discretionary activity status, while possible, may need a large list of restrictions of discretion in order to capture every possible permutation of "enterprise". In any event, if the term is to be retained, Officers recommend that the same condition applying to other rules, that triggers a noncomplying activity status for intensification, ought to apply to the whole enterprise, and a definition that is mutually exclusive with property be used.

C4.7. New definitions sought

C4.7.1. Additions to Glossary of Terms

C4.7.1.1. Background

576. The 'Additions to Glossary of Terms/Ngā Āpitihanga ki te Rārangi Kupu' lists an array of new terms and definitions to be incorporated into the WRP. The terms are introduced as a result of new objectives, policies, methods, rules, schedules, and tables within PC1.

577. Other sections of this Section 42A report have addressed submissions on individual definitions within the Additions to Glossary of Terms[80]. However, this section covers general submissions on the Additions to Glossary of Terms. Some of these submissions seek clarification on existing provisions whereas others propose new definitions entirely.

C4.7.1.2. Submissions/Analysis

578. 88 submissions were received in relation to the Additions to Glossary of Terms.

579. Many of these requests are covered in other blocks of this Section 42A report as a result of recommendations on other provisions requiring clarification of existing terms or new terms being introduced. For example, this is particularly relevant for submissions seeking the addition of definitions for regionally significant industry and infrastructure, and further clarification on the use of waterbodies for the stock exclusion provisions. Officers' have made recommendations on these submissions, and therefore, they are not repeated here.

580. Several submissions requested the addition of new definitions to clarify commonly used terminology within PC1. These are listed as follows:

- Low level of contaminant discharge;
- High level of contaminant discharge;
- Low discharges;
- Low discharging activities;
- Forest;
- Grazing; and
- Grazed land.

581. It is the Officers' view that these terms do not require definitions as they can be interpreted based on their common dictionary meaning. Additionally, many of these terms do not form part of the rule framework within PC1 and are instead only mentioned in some objectives and policies. On this basis, Officers' do not consider that including definitions for the terms listed above will improve the implementation of PC1.

582. Other submissions seek new definitions to be added or amended for terminology used within PC1 that is more 'conceptual' in nature, such as:

- Catchment profile;
- Ecosystem services; and
- Past, current and future.

583. Officers' consider that it is more appropriate for the above terms not to be defined, as they are generally used outside of the planning process, likely as part of broad assessments or in implementation by WRC. Officers are not convinced that a definition would add clarity or certainty to PC1.

584. Several submissions request new definitions for terms that are included in rules sought by submitters. These include:

- Peak stocking rate;
- Effective hectares;
- Catchment collective;

[80] For example: Certified Farm Nutrient Advisor, Point Source Discharge/s etc.

- Sub-catchment Scale Management Plan;
- Sub-catchment management plan;
- Adaptive management;
- Decision Support Tool; and
- Mitigation measures.

585. The Officer's note that none of these terms are recommended to be used. However, if the Panel did wish to recommend the adoption of any of the rules reliant on these terms, the Officers' recommend that they are defined within the Additions to Glossary of Terms, and the submitter's requested wording is an obvious start-point. At the request of the Hearing Panel, the Officers can provide recommended wording at the conclusion of the Hearing.

C4.7.1.3. Other definitions

586. There are a small number of new terms recommended to be used in the rules, that could benefit from a definition. While no specific definitions have been sought for these terms in submissions, the Officers recommend the following definitions be added as consequential changes:

> *Sacrifice Paddock – means the containment of livestock in a paddock that precludes the maintenance of vegetative groundcover.*
>
> *Dairy Cattle – means cows that are or have been used for milk production, whether they are being grazed on a milking platform or not.*
>
> *Feedlot – means the containment and feeding of livestock, covered or uncovered, for the purpose of finishing for meat production, and the activity precludes the maintenance of vegetative groundcover.*

C4.8. Forestry (Part B)

C4.8.1. Plantation Forestry

1 This section of the report relates to Part B of Plan Change 1 (PC1) and how the relevant provisions are impacted by the National Environmental Standards for Plantation Forestry Regulations 2017 (NESPF).

C4.8.1.1. Part B Provisions

587. PC1 inserts Condition (q) which relates to the notification of harvesting operations, the associated timeframe and the requirement for a harvest plan. This condition is to be inserted into conditions for Permitted Activity Rule 5.1.4.11 and Standards and Terms for Controlled Activity Rules 5.1.4.14 and 5.1.4.16 of the WRP. It will be inserted after condition (p)(ii) in Section 5.1.5 and before the advisory notes.

588. Provisions for forestry activities were not included in PC1 as it was determined that existing forestry rules were sufficient to control the adverse effects of contaminant loss to water. The requirement for a harvest plan was signalled by a draft of the NESPF and was intended to improve Council awareness of any harvesting operations that may result in a range of issues, including changes to sediment discharge.

C4.8.1.2. NESPF Provisions

589. The NESPF standardises and regulates, through a set of permitted activities, eight forestry activities and must be given effect to. Regulation 6 of the NESPF outlines a set of criteria where rules can be more stringent and existing rules which comply with the criteria can be retained and do not have to go through the RMA Schedule 1 process. However, where new rules are proposed that are more stringent, these must go through the RMA Schedule 1 process.

C4.8.1.3. Identified overlap/gaps

590. In terms of the Vision and Strategy, no conflicts have been identified between the NESPF and the Vision and Strategy however, where a conflict arises, much like the NPS-FM, the Vision and Strategy prevails.

591. PC1 does not provide a definition specific to forestry or forestry activities. However, the setback definition and woody vegetation definition in PC1 potentially conflict with the NESPF. Woody vegetation is not a definition of plantation forestry and the NESPF has defined plantation forestry. Submissions relating to the setback definition are discussed in the stock exclusion section of this report.

592. This assessment does not discuss forestry as a whole in terms of PC1, as it is only intended to cover provisions relevant to the NESPF. Land use change in regard to forestry is discussed in other sections on this report.

C4.8.1.4. Submissions

593. In total there are 20 submissions on condition (q) with a majority in support of the additional condition. Seven submissions support the condition and request it is retained[81]. Reasons for support include:

- Harvest plans are already prepared by the forestry industry
- The addition of condition (q) is consistent with key themes in PC1
- The non-complying land use change activity rule, Rule 3.11.5.7, indicates forestry is the most preferred productive land use in terms of achieving water quality outcomes and as forestry is regulated under Regional Plans, operations are able to be enforced by existing rules which suggest the rules are sufficient.
- Condition (q) is a sensible addition to enable Council to be more proactive in administering and enforcing rules.
- Managing contaminants from forestry activities is consistent with the approach of managing diffuse discharges from farming activities

594. Federated Farmers request that where parts of the harvest plan are superseded by the NESPF and where they are inconsistent, the more stringent standard should apply.

595. M. Yeates does not request a decision although suggests pine forest harvesting results in a range of impacts including erosion, biodiversity loss and other issues, and she considers that pine trees should not be planted in the Waipā Catchment. Sieling Farms suggests PC1 National Regulations once they have been finalised as PC1 does not align with the agreed forestry industry and government standards

596. New Zealand Farm Forestry Association – Waikato Branch suggest deleting condition (q) or amending it to ensure it only applies to harvest operations exceeding 4ha or where the harvest

[81] New Zealand Forest Owners Association Inc (9964), Waikato Regional Council (3654), Wairakei Pastoral (11397), HFM (5808), Oji Fibre Solutions (NZ) Limited (8950), Wairarapa Moana (2156), Federated Farmers of New Zealand (V1 – 813)

operation is within 50 metres of a stream, river or water body and to delete the requirement for a harvest plan in the written notice unless otherwise agreed with WRC. They consider it unnecessary and excessive to require notification 20 working days before commencing operations. K. Port suggests that farm forestry sites or woodlots less than 3 hectares should be exempt from the notification requirement as condition (q) creates unnecessary cost and regulation for small woodlots. He suggests encouraging planting and retiring rather than further regulation at harvest.

597. HFM suggest Council only require notification of the commencement of a harvest in a forest only and its amendments should be made in periodic tranches or on request, electronically. NZ Forest Managers Ltd suggests the notification period be reduced to at least 10 working days and seek amendments so that the harvest plan provision is removed from the notification requirement or amended to be provided on request from Council.

598. Fish and Game suggests amending the harvest plan to include provisions that would safeguard streams and rivers from sediment and P loss, by adding the following provisions to (b):

> *v. Buffering measures undertaken;*
> *vi. Harvest and replanting regime.*

599. Fish and Game also suggest that the NESPF does not give effect to the Vision and Strategy and are not well linked to water quality outcomes nor does PC1 provide limits to discharges for Part B. They consider that PC1 requires more stringent rules than the NESPF to address the unique water quality challenges in PC1 and also the lack of existing rules in the Operative Regional Plan necessitates the need to put adequate safeguards in place. They request specific amendments be made to existing plan rules and not provisions in PC1.

600. Mercury NZ Ltd suggest amending condition (q) to specify the limited circumstances (exceptions) when a harvest plan is not required. They also suggest including the identification in any district plan to (iv) of the location of any riparian vegetation including significant natural areas. Additionally, they seek condition (b)(iv) be amended to clarify the intent and meaning of riparian vegetation to be protected.

601. Rayonier Matariki Forests suggests removing conditions (b)(i) and (ii) and replacing it to read:

> *A slash and sediment plan for harvesting block that adheres to best management practices, shall be available on site for inspection on request at commencement of and during the harvest operation, with variations to the plan and reasons for the variations documented*

602. P. Volker and M. Hamilton request PC1 includes freshwater objectives, attributes, limits and targets in relation to forestry. Both suggest that this would: avoid, mitigate or remedy actions during harvesting that accelerate erosion and minimise the discharge of sediment to water bodies; felling away from the riparian zone to limit riparian disturbance; avoid more than minor adverse effects; and ensure that mechanical land preparation is parallel to the contour where practical. They also suggest that PC1 should have clear and enforceable permitted activity standards for forestry that will control environmental effects and where that is not possible, a consented regime is applied. M. Hamilton also request further amendments to existing regional plan rules relevant to forestry setbacks.

603. N. Phillips requests condition (q) is amended to ensure when flooding occurs, fences are not covered and damaged with debris by installing silt traps and ensure they are kept clear and

would not have to be removed manually to avoid further damage. I. Yates Ellery seeks clarification in the harvest plan whether harvesting of pine would be able to occur three times within the 80-year long term target of PC1.

C4.8.1.5. Analysis

604. The Officers have concluded that where conflicts arise between the Vision and Strategy and the NESPF, the Vision and Strategy prevails. However, as condition (q) was signalled by a draft of the NESPF, and the gazetted version of the NESPF contains a more robust requirement for notification and submission of a harvest plan, the NESPF prevails over condition (q) of PC1. Therefore, in the officer's view it would be inappropriate to retain Part B. The following analysis of the above submissions is considered in this context.

605. The NESPF came into effect on the 1st of May 2018. Harvesting is one of the eight plantation forestry activities regulated under the NESPF. Except for criteria under Regulation 6 (Appendix 1), Councils must give effect to the NESPF and amend plans as soon as practicable. The NESPF applies to any forest larger than 1 hectare. Therefore, it would apply to farm forestry or woodlots discussed by K. Port and the New Zealand Farm Forestry Association.

606. The NESPF requires the notification of a harvesting operation at least 20 working days prior to commencement and no more than 60 working days before the date on which the harvesting is planned to begin; or a minimum of 2 days before the date of which harvesting is required for salvage operations is planned to begin; or annually, in the case of ongoing harvesting operations. Rules may not be more stringent or lenient than the NES unless the NES specifically states otherwise82. Therefore, these standards must be given effect to and Council is unable to provide for more lenient timeframes as requested by NZ Forest Managers Ltd.

607. A copy of the harvest plan under the NESPF must be provided to Council within 5 working days of the date by which the plan must be in place. However, a harvest plan must only be provided if it is requested by Council. PC1 requires the written notice to include the harvest plan. The Officer notes that the amendments requested by NZ Forest Managers Ltd and HFM about when a harvest plan must be submitted are consistent with the NESPF.

608. In regard to the addition to the harvest plan by Fish and Game, harvesting and replanting are specific activities regulated under the NESPF, therefore it is inappropriate to be included into PC1. Specific setbacks are also included in the NESPF for harvesting and replanting activities therefore buffering measures do not need to be included in the harvest plan.

609. With regard to Mercury's submission, there is provision in the NESPF where activities must not be undertaken in identified significant natural areas, however for Regional Councils it is only if identified in Regional Plans or Regional Policy Statements, not District Plans. In the NESPF, the harvest plan refers to any riparian planting.

610. With regard to Rayonier Matariki Forest's request, under the NESPF, slash is regulated through a permitted activity, sediment is managed throughout each of the eight forestry activities and in certain circumstances, under Schedule 4, a quarry erosion and sediment management plan is required.

611. With respect to P. Volker's and M. Hamilton's submission, the NESPF does not include freshwater objectives, attributes, limits and targets therefore it would be inconsistent with the

[82] Resource Management Act 1991, Section 43B Relationship between national environmental standards and rules and consents

NESPF to do so. The further amendments requested by M. Hamilton are in relation to existing forestry rules in the Regional Plan, which is out of scope of PC1.

612. As forestry activities are not included as rules in PC1 and eight forestry activities are regulated under the NESPF, harvesting cycles are not regulated or authorised under PC1 therefore I. Ellery's request is dealt with under the NESPF.

C4.8.1.6. Recommendations

613. Delete Part B in its entirety.

C4.9. Miscellaneous submission points

C4.9.1. Introduction and Provisions

614. This section of the report addresses a number of relatively disparate topics that do not sit well in other sections of this report. These topics are:

- Procedural issues and matters outside of PC1 scope;
- Plan usability, monitoring, education, and implementation; and
- Items requiring specific consideration which do not relate to any other topics within this report.

C4.9.2. Procedural issues and matters outside of PC1 scope

C4.9.2.1. Submissions outside the scope of PC1

615. This section of the report considers those submissions that are considered by the Officers to be outside the scope of PC1. This includes both submissions that are relevant to the consideration of regional plan provisions, but which are considered to address matters outside the scope of PC1; and submissions that relate to matters that sit outside regional plans. These include submissions on: hunting controls; rubbish management; herbicide and pesticide use; infrastructure and roading; plant removal; requesting the inclusion of other contaminants; and water quantity.

616. Submission requests that are considered to address matters that sit outside the regional plan entirely include:

- Ban the use of all disposable plastics and put a 0.5 cent return on all glass and aluminium cans
- Include increased fines for dumping rubbish
- Make hazardous waste and solid waste collection sites free of charge to encourage use, and a rates rewards system to encourage the disposal of hazardous materials
- Require rubbish collection agencies to take away all hard waste items
- Advocate a clean water policy that considers streets as tributaries of our local rivers and lakes, and publicise the implementation of hefty fines for the dumping of rubbish
- Subsidise car wash sites to encourage their use[83]
- Undertake strategic replacement of all tar sealed and bitumen roads with paved cobbled or concrete surfaces[84]

[83] Many of the above points: Carter, B
[84] McQuinn, J

- Investigate riverside residential and industrial pollution seeping into water[85]
- Ensure that toilet facilities are provided on walking tracks along rivers and streams[86]
- Waikato River Authority funds the scoping of and recommends economic options for retiring steep land into uses such as Manuka honey.[87]
- Reduce waterfowl populations through provisions and remove hunting protection that retains numbers of water fowl to a certain level for hunting purposes due to the contribution of water fowl to E.coli.[88]
- Require hydro schemes to contribute money to subsidise the Council to employ staff to help landowners with mitigations[89].

617. Submission requests that are considered to address matters that do relate to regional council functions under the RMA, but which are outside the scope of matters addressed in PC1 include:

- Require private enterprises such as mussel farms to improve their actions and take care of the environment.
- Amend PC1 to address human sewage[90] and ban all raw or untreated sewage being released in the Waikato River.
- Implement the use of filter pumps for all storm water and wastewater outlets going into waterways.
- Ban the application of low grade phosphates so they have a minimum to zero level of heavy metals.
- Require all new housing and commercial premises to channel grey water systems into the sewerage systems rather than into storm water systems, and conversion of old houses and business premises to do the same over time.[91]
- Include 'zero pollutant and negative influences' from the following: roading and rail, including micro-particle pollution and noise and vibration of land and waterways; and power lines, including high tension power lines of electromagnetic fields and radiation.[92]
- Include the run-off from streets, roads[93] and paved area.[84]
- Limit the quantity and/or timing of willow removal and related fine sediment discharges and require provision of the equivalent riparian quality after removal.[94]
- Remove rubbish dumps from banks and river surrounds.[95]
- Ban the dumping of farm waste and farm waste monitoring.[96]
- Require crop dusting to be applied by land-based means, except for locations without large waterways.[96]
- Include the control of herbicides and pesticides in PC1.[97]
- Amend water quantity provisions (for example, stopping all irrigation, increasing river flows and/or reducing large water takes by requiring dams) to help improve water quality.
- Amend PC1 to ensure protection of outstanding natural character is recognised in policies and rules.

[85] Harper, J
[86] Mills, J
[87] Hill, M
[88] Houghton, J
[89] Wiremu Trust
[90] Saxton, D and Wilson, D
[91] Many of the above points: Carter, B
[92] Merrie, M
[93] Tapp, K
[94] Eel Enhancement Company Ltd
[95] Finlayson, W
[96] McCaughan, L
[97] Carter, G and McLaughlin R & P

- Reduce the turbidity in the Waikato estuary so that it is not at an 'unsatisfactory level' more than 30% of the time.
- Including a new policy and rule so that discharges of treated dairy effluent to waterways is prohibited by 1 July 2019.
- Manage forestry so that it is only done in small areas of farms and takes place in areas and on a scale where it will not affect the beauty of the landscape
- Recognise the impacts of rubbish dumps and the management of leachate[98]

C4.9.2.2. Submissions on procedural issues

618. This section of the report sets out submissions that relate to procedural issues.

619. The Section 32 evaluation report prompted a number of submissions. A number raise concerns about the analysis including that: it does not adequately assess costs, benefits and alternatives, it does not comply with the RMA, that some provisions are not assessed, that it does not show that PC1 will achieve the V&S, and it fails to assess the efficiency and effectiveness of PC1.

620. Some of the submissions, including Beef and Lamb and M Muir submitted on reinstating the north east portion of the catchment and wanted a new section 32 analysis on the alternative provision proposed in their submission. Other submitters want the 32 analysis to investigate the revised (removal of the North east portion) impact of PC1 on society and the economy of the catchment.

621. Other submissions on the Section 32 request:

- a balanced analysis that does not select only those results that favour its proposed actions and that important data is included in the report not just in references.[99]
- that the effect of the Auckland planning regime on the availability of scarce cropping land is recognised.[100]
- that the costs incurred by the grower community related to clawback of authorised freshwater abstractions and removal allocation bands are factored into the Section 32 analysis.[100]
- a comprehensive assessment and quantification of the costs and benefits of PC1 in accordance with Section 32(2)(a) and Section 32(2)(b) of the RMA.[101]
- a report so that the wider community understands the true costs and benefits of the trade-offs involved in PC1.[102]
- to use transparent peer reviewed economic models which include all externalities.[103]
- that the adequacy of the Section 32 analysis and if it meets the requirements of the Resource Management Act is considered[104]
- additional analysis, such as evaluation of the scenarios considered for PC1, including an evaluation of Scenario 2.[105]
- That the Section 32 analysis is disregarded and seek further evaluation of the entire Proposal is undertaken, as provided for in section 32AA of the RMA.

622. Hauraki District Council seek early engagement in the scoping of the plan change process for the Waihou-Piako and Coromandel catchments. They also seek the inclusion of transitional

[98] Parry, B, Saxton, D, Tapp, K.
[99] Okell, R
[100] Horticulture New Zealand
[101] McGovern, A
[102] Reeves, J & Taylor, A
[103] Keane, E
[104] Watercare Services Ltd
[105] Oji Fibre Solutions (NZ)

provisions to improve water quality in an agreed timeframe by all parties involved in the plan change for the Waihou-Piako and Coromandel river catchments. T Mandeno seeks the inclusion in PC1 of present west coast water quality monitoring data (i.e. on rivers outside the Waikato and Waipa catchment).

623. Mercury want both PC1 and any further amendments to the WRP not to compromise the operation and productive output of the Waikato Hydro Scheme.

624. Other procedural matters raised include submitters seeking amendments to the majority vote percentage used in Council decision making.[106]

625. Horticulture NZ want consideration of the implications of Variation 6 for freshwater quality management and commercial vegetable growers. They seek acknowledgement of the effects of water quantity decisions made in Variation 6 on growers and acknowledgement that Variation 6 transfers the cost of unauthorised takes and the discharge of these takes which degrade water quality.

626. M Matamua seek amendments to PC1 by acknowledging that Ngati Hotu, sometimes referred to as the Patupaiarehe, have the right to appoint who they want to oversee their interests. Ngāti Koroki Kahukura Trust & Taumata Wiiwii Trust want the Waikato Regional Plan and all planning documentation to recognise and name Ngāti Koroki Katutura as a River Iwi.

627. P Scott proposes implementing a system where if an effluent system is inadequate the landowner is charged for more frequent visits, and if it is of a good standard the visits are less frequent and free.

C4.9.2.3. Analysis of matters outside scope and procedural issues

628. The submissions that have been identified above as being outside the scope of PC1 have been considered to be so on the basis that they relate to matters that are either not controlled or managed under a regional plan, or relate to matters that while relating to the regional council's functions under the RMA, are outside the scope of the 'four contaminants' managed under PC1.

629. Many of the activities raised in these submissions are those that are not managed under the provisions proposed in PC1 but relate to matters managed under the existing Waikato Regional Plan, and which will be addressed in the wider Waikato Regional Plan review. For example, some of these activities are captured within the WRP general discharge rules and the need to meet the suspended sediment standards, storm water provisions[107] and rules relating to onsite domestic restrictions on vegetation clearance on the banks of rivers and high risk erosions zones. The Waikato Regional Plan also includes provisions for the management of new and currently operating landfills, closed landfills, controls on farm dumps[108], municipal waste water treatment infrastructure and the air quality chapter contains a number of provisions relating to the application of agrichemicals. Rules around high risk facilities includes car wash facilities.

630. In relation to water quantity, while the Officers acknowledge that water quantity can influence water quality, prior to commencing PC1 the WRC had undertaken Variation 6 to the Regional Plan to address water take and use. Water quantity is therefore considered largely outside the scope of PC1.

[106] Oxley, Michael
[107] storm water discharges are addressed in Section 3.5 of the Plan
[108] including those in Section 5.2.6 relating to farm dumps and offal holes and Section 5.2.7 in relation to Landfills

631. Some submissions that are considered to be outside the scope of PC1 also either relate to past plan changes or are part of WRC's work program of future plan changes. These include submissions on future engagement on the development of Waihou-Piako Coromandel Catchment Plan Change and heavy metals. The level of metals in fertilisers are considered to be outside the scope of PC1 and will be addressed in the Regional Plan review. The WRC has a work program as part of a project titled Healthy Environments that will undertake freshwater chapter specific changes to the remainder of the catchment.

632. The Officers do not consider it to be appropriate to include in PC1 water quality monitoring data for streams outside the catchment i.e. the West Coast waterways. This information is available in WRC reports and is a decision for a future west coast plan change if this data should be included in the Regional Plan.

633. The Waikato estuary is in the CMA area and therefore setting turbidity standards for the estuaries is considered to be outside the scope of PC1. Mussel farms also fall within the Coastal Plan and therefore are outside the scope of PC1.

634. The Officers do not consider that PC1 is the correct forum to address the acknowledgement of Ngati Hotu's right to appoint who they want to oversee their interests. The Officers consider that Regional Plan Review and its associated engagement with Iwi and partners would be a more appropriate forum to consider how the Regional Plan could recognise and name Ngāti Koroki Katutura.

635. The submission matters related to the following activities are considered to be outside the functions of Council under the RMA: the use of WRA funds to scope and recommend economic options for retiring steep land, charges on rubbish collection, subsidies for car wash use, the composition of roads, provision of toilet facilities on walking tracks, management of negative influences from powerlines, the management of waterfowl populations and the removal of hunting protection on animals.

636. In regard to the submission on the diversion of greywater, the submission is considered to be outside of the scope of WRC's control, in that it relates to individual houses and their connections to municipal networks. This is a matter for Territorial Authorities to manage as the WRC has no means through the regional plan consenting processes to control the discharges of third parties such as households into a municipal or stormwater system.

637. In regard to the submission seeking amendment to the majority vote percentage used in Council decision making, this is not a matter controlled under the regional plan.

638. In terms of the submissions relating to the Section 32 report, the Officers note that the RMA includes specific requirements, outlined in section 32, as to the evaluation that Council must undertake of the provisions proposed. This includes assessment of the benefits and costs of the economic, environmental, social and cultural effects anticipated from the implementation of the provisions. The assessment is summarised in Council's section 32 Report, and in the Officers' view, provides sufficient consideration of economic effects. An assessment of the efficiency and effectiveness of the proposed provisions was undertaken in accordance with section 32 of the RMA. Additional criteria from the CSG Policy Selection Criteria was also included in the evaluation report. The efficiency and effectiveness assessment identifies and assesses the feasibility, acceptability and relevance of the provisions. A number of submitters are critical of the section 32 evaluation undertaken to support PC1. The section 32 evaluated the effectiveness and efficiency of a range of alternatives, the Officers acknowledge that there may be alternatives to the proposed approach that all the variations may not have been evaluated,

but a balanced analysis that considered the matters pertinent to the scope of PC1 were considered. The Officers consider that the s32 meets the requirements of an evaluation report.

C4.9.3. Plan usability, monitoring, education and implementation

C4.9.3.1. Submissions and Analysis

639. There are a number of submissions requesting a variety of provisions to be added on matters interrelated to PC1, such as plan usability, monitoring and communication and implementation of PC1. Given the discrete nature of these submissions, this section sets out the relevant submission point followed by the Officer analysis.

640. Gardon Limited request that all amendments to the plan include both the English and Māori translation. The Officers agree it is appropriate that the plan should include both the English and Māori translations.

641. There are a number of submissions relating to monitoring the impact of PC1. G Kilgour requests that the cost of PC1 is monitored, ensuring the council quantifies the cost of any reverse in land use change scenarios. Some submitters request additional reporting in regard to how we are progressing towards the objectives, limits and targets. E and P Neal propose WRC should purchase a farm and evaluate PC1 policy effectiveness and overall cost.

642. The Officers consider that monitoring is a matter that sits outside PC1 and is for Council to consider as part of its implementation phase, including monitoring of progress towards the objectives, limits and targets. The Officers do not in any case consider it appropriate to purchase a farm or to quantify the cost of any land use change scenarios/policy effectiveness evaluation as the legal and statutory framework/science and economics of PC1 were already addressed in Block 1.

643. There are a wide range of submissions relating to education and further research. Some submitters propose approaches led by communities around self-monitoring initiatives such as holding workshops with the public on water quality self-testing kits. Others propose more research into fertiliser use/application[109] and sub catchment geomorphology[110]. J Reeves supports the continued monitoring of sediment and water clarity in water bodies. Others are more focused on modes of communication from Council to stakeholders on science water quality reporting[111]/cost/benefit analysis of the allocation frameworks[112] and implementation/enforcement methods for non-compliance[113]. R Boom requests that the Council subsidise a koi carp business to harvest koi and turn their remains into fish meal or fish fertiliser. A and B Gill request Council should provide compensation for all farmers.

644. The Officers consider that while some of these actions may be appropriate and helpful for the WRC to consider, things such as holding workshops with the public on water quality self-testing kits, subsidising koi carp initiatives or funding research on fertiliser use/application and sub catchment geomorphology or to undertake evaluations of implementation and enforcement actions/providing compensation are very much non-regulatory or non-RMA matters for the WRC and should not be included in PC1.

[109] McLaughlin, R & P
[110] McGrath, J
[111] Johnston, P
[112] Reeves, R and Taylor A
[113] Fursdon, S, Homestead Oaks Ltd

645. J Holland and E Roselei consider that public recognition of the Hakarimata Scenic Reserve is DOC's responsibility and seek public recognition of the large amount of debris coming out of the reserve. The Officers note that the NPS-FM requires the identification of FMUs and appropriate limits and targets. PC1 does this, and also breaks some of the FMUs into a series of sub-catchments and provides limits and targets for each. The Officers note that this reserve constitutes sub-catchment 18 out of Table 3.11-2 which is a priority one area. Therefore all landowners within this catchment will be required to meet the compliance requirements of a priority 1 area. Without more information from the submitter of what additional requirements they seek for their property within this sub catchment, the Officers consider that this submission should be rejected.

646. Several submitters[114] request recognition and accounting for the contribution that Māori land has made to offsetting the discharges from other developed land. The Officers consider that PC1 is not be the appropriate forum to discuss public acknowledgement for the contribution that Māori have made to offsetting the discharges of other developed land.

C4.9.4. Items requiring specific consideration

C4.9.4.1. Submissions and Analysis

647. This section addresses any submission points requiring specific consideration which do not relate to any other topics within this report. Given the discrete nature of these submissions, this section sets out the relevant submission point followed by the Officer analysis.

648. Oji Fibre submit that PC1 has failed to consider the requirement in the National Environmental Standards for sources of drinking water. They seek amendments to PC1 by identifying specific areas where discharges could result in community drinking supplies becoming unsafe following existing treatment. They also want a new rule for all land uses, irrespective of size, so that resource consents are required for all discharges that could result in community drinking water supplies becoming unsafe for human consumption following existing treatment. The Officers note that WRC have a current work programme that is considering the issue of the protection of Community Drinking water supplies. It is expected that the Regional Plan review will consider the identification of drinking water protection zones.

649. There were two submissions on the area that PC1 covers (other than the many submission on the reinstatement of the north east portion of the catchment). P Gaudin requests that PC1 should cover entire Waikato Region. C Hurley considers that PC1 covers too large an area and should apply only to small local areas where there is a noticeable problem.

650. The Officers recommend that these submissions are rejected. The PC1 boundary aligns with the Vision and Strategy, one of the key drivers of Plan Change 1. As discussed elsewhere in the s42A Report, there are very few sub-catchments where water quality for the four contaminants is not an issue. The Officers therefore recommend that a change to the area, based on only those areas where water quality is a problem, is not appropriate. Freshwater management issues across the remainder of the catchment are planned to be addressed in the Regional Plan review over two catchment specific chapters of the Regional Plan. The Officers consider it inappropriate to expand the provisions' scope over the remainder of the catchment where affected parties have not had the opportunity to submit. The Waihou-Piako Coromandel and West Coast catchment Plan changes will be better placed to address the issues specific to those catchments.

[114] Tūwharetoa Māori Trust Board, Te Whakakitenga o Waikato Incorporated (Waikato-Tainui), Waikato and Waipā River Iwi, Raukawa Charitable Trust, Maniapoto Māori Trust Board

651. Heritage New Zealand consider that the existing Regional Plan framework does not provide satisfactory protection to the historic heritage resource. They seek the inclusion of an advisory note to the Regional Plan and non-statutory document to direct readers to Heritage NZ if they discover new archaeological sites. Officers agree that the WRP does not provide for reporting of archaeological sites identified after the date stated in the Regional Plan rules (for example, 5.1.5 conditions for controlled activity rules). However, the Officers consider that rather than the reliance on an advisory note, this matter should be addressed in the review of the relevant provision in the Regional Plan review.

652. M Hill is concerned that PC1 does not identify all the North Waikato Lakes, some of which have become toxic. The submitter requests that PC1 is amended to recognise all north Waikato lakes and wants farmer representatives beside each respective lake to become members of voluntary clean-up committees. Officers note that the submission is not clear in what way the plan should recognise the lakes. Without more information on what recognition of the lakes the submitters want the Officers do not recommend accepting this submission. In addition, the Officers consider it outside the scope of a Regional Plan to require membership of voluntary clean-up committees.

653. Several submitters[115] seek that PC1 be amended to align with the Waikato-Tainui Environmental Plan. However, the specific amendments required are not identified and in absence of what amendments are required to achieve the alignment sought, the Officers do not recommend accepting this submission.

654. Otorohanga DC consider that PC1 is unfair on low dischargers and seek equitable and effects based simplified rules. They propose that the solution may be in the preparation of the equivalent of a farm zoning map or Regional Land use Plan that will provide a certain and straightforward method to establish permitted farming uses, rather than individual farmers bearing the cost of establishing if the use is permitted. Otorohanga DC request that WRC investigate the viability of a zoning approach or Regional Land Use Plan as an alternative, potentially more cost-effective means of achieving the desired PC1 objectives.

655. Officers note that the basis for the farm zoning mapping or the Regional Land Use Plan is not outlined in the submission. The submission asks council to investigate the viability of such an approach as an alternative to the current provisions. It is difficult for the Officers to evaluate this option but it would be expected that this type of approach (using zoning as a basis of effect) could require detailed information on soils, climate that may not be available or very expensive to develop. There is potential for high costs for agencies and the impact on reducing discharges is unclear. At this time, it is not recommended the submission on this point from Otorohanga DC is accepted. However, the Officers welcome evidence from the submitter on the basis for the zoning.

656. L Chick and Z Mounsey has raised concerns about the contributions that the hydro dams make to reduce water quality and therefore want the impact of the dams factored into PC1. The Officers note that the effects of the hydro dams was taken into account in the PC1 monitoring and modelling that informed PC1 development. The Officers also note that the submitters do not clarify what changes they want in PC1 to address the impacts of hydro dams. The Officers welcome evidence on the matter from the submitters.

[115] Te Awamaarahi Marae Trustees, Ngaati Tamaoho Trust Te Taiao Roopuu, Potini Whaanau, Maungatautari Marae, Ngati Haua Iwi Trust, Turangawaewae Marae, P McLean, Waahi Pa Marae Committee, Waahi Pa Marae Committee, Poohara Marae, Ngaati Tamaoho Trust Te Taiao Roopuu, Potini Whaanau, Maungatautari Marae, Ngati Haua Iwi Trust

657. P and D Elliot request the removal of the requirement to plant steep land to forestry. The Officers note that there is no requirement in PC1 to plant land to forestry and therefore it is unclear what the submitters are referring to.

658. J Cotman requests a new plan that endorses landowner developed BPO and addresses the adverse effects of the Whangamarino Stream Weir (Department of Conservation, and Fish and Game). The Officers note that it was identified during the preparation of PC1 that significant improvements must take place to restore the Whangamarino Wetland. DoC hold a resource consent for the Whangamarino weir which holds up the level of the wetland which positively benefits the invert levels of the wetland which is consistent with the approach of PC1. It is unclear from the submitter what adverse effect the submitter wants addressed in regards to the weir therefore the Officers recommend that the submission is rejected.

659. WRA seek the strengthening of provisions for the protection of lakes and wetlands including for lakes where peat staining limits can impact clarity. They want peat staining accounted for in limit setting. Given the PC1 limits are based on a swimmability targets, the Officers consider that the natural effects of peat staining, are not relevant for clarity limits in PC1.

660. S Croft consider that *E.coli* should be clearly defined with regard to water quality targets and that the sources of the *E.coli* should be determined so farmers cannot be held responsible for reducing *E.coli* from other sources. They request that PC1 is amended so it is only managing *E-coli* of farm animal origin. The Officers note that the origin of animal/human *e-coli* cannot be specified/separated in testing. In addition, the NPS-FM regulations do not require such separation. Therefore the Officers consider that amendments to include *e-coli* of animal origin be rejected as they are not considered appropriate or practicable.

C4.10. Part D (consequential changes)

661. Part D of PC1 contains consequential amendments to the WRP. These changes have been identified as being required as a consequence of the substantive changes proposed in PC1, in order to ensure the integration and workability of the Plan as a whole.

Submissions and Analysis

662. In total, seven submitters commented on Part D.

663. Wairakei Pastoral support the consequential amendments set out in Part D, as they consider it will provide added protection to the Whangamarino Wetland as a wetland of national importance. DOC support the amendments proposed in Part D to Section 3.7 (Wetlands).

664. Fish and Game support the consequential amendments set out in Part D, subject to relevant consequential amendments being made to Part D to align with the substantive changes they seek to PC1. Similarly, Forest and Bird support the consequential amendments, but note that some amendments may be necessary to be consistent with the broader relief sought in their submission. Officers agree in principle that where changes are made to PC1 in response to submissions, there may be consequential changes required to the wider WRP. However, the need for such changes will depend on the decisions made on the substantive changes sought to PC1.

665. Fish and Game also support the approach to the consequential amendment to 3.2.4.1 Water Management Classes (e), that where two policies address the same issue, particular regard is given to the more stringent policy. However, they consider this should not only be applied when there are inconsistences as should this occur, it is superfluous and may limit the operation of Chapter 3.11. They request the amendment to 3.2.4.1 is amended as follows:

…the same issue and are inconsistent particular regard…

666. Officers do not agree with the deletion sought, as the intent of the addition is to provide further guidance and clarification of when a more stringent policy is to be given regard to, and the deletion sought would not provide this guidance and clarity.

667. HFM and Oji Ltd oppose the consequential amendments, to the extent that they amend the existing regional plan rules so that they apply only to point-source discharges. They consider that the changes are inappropriate and unreasonable, and state that the extent to which the existing WRP rules will continue to apply to farming activities is unclear. They consider that a number of existing standards in the plan should continue to apply to farming activities in addition to the PC1 rules. They seek that the consequential amends in Part D are deleted, so that it is clear that the existing rules continue to apply to diffuse discharges, or that the relevant rules be incorporated into Chapter 3.11 to form part of the permitted activity standards.

668. Officers consider that it is already made clear through the consequential amendments where farming activities are regulated through Chapter 3.11 rather than through the existing WPR rules. The proposed consequential amendments are written to clarify that the existing plan provisions no longer apply to the diffuse discharges of N, P, sediment and microbial pathogens which are instead addressed in Chapter 3.11. All other point-source discharge rules will continue to apply to farming activities. Therefore, it is not appropriate to delete the consequential amendments which refer to point source discharges.

669. WRC supports stock exclusion from waterways as a priority mitigation, as first and second order streams and ephemeral waterways contribute the bulk of sediment within a catchment. However, they raise concerns that PC1 does not provide clarity about which chapter has preference with regard to the application of riparian planting and stock exclusion fencing. They note Schedule C in PC1 has a setback of 1m and existing standard 3.3.4.28 in the regional plan requires 3m and specific planting density. Therefore, they request Part D is amended to ensure the more stringent parts of 3.3.4.28 have preference. Officers agree that there is a lack of clarity about whether PC1 provisions have precedence over the existing regional plan standard 3.3.4.28 with respect to riparian planting and stock exclusion fencing and agree that the advisory note should be amended to make it clear that the riparian planting and stock exclusion fencing requirements in Chapter 3.11 apply in addition to the default region-wide requirements.

670. WRC also requested the consequential amendment to Rule 3.4.5.6 is amended, as they note irrigation data needs to be developed each month of each irrigation season to plan irrigation and FEPs do not provide data monthly. They seek the following amendment:

671. Subject to compliance with any specific requirements, reporting through a FEP is a valid means of supplying data under this rule to describe how irrigation water balances will be calculated and managed.

672. Officers agree that reporting of irrigation data through a FEP is not appropriate as FEPs are not updated monthly. As this consequential amendment is to the advisory notes of the existing regional rule, the data must be supplied through consent requirements, so it is not necessary to

refer to information in this note. Therefore, amending the consequential amendment to provide a description of the process of how water balances are determined will ensure correct and timely data will still be provided for through consent requirements. Officers also recommend making this amendment to the advisory note to the controlled activity rule for the use of water for crop and pasture.

C4.11. Map 3.11-1 (page 13) and Map 3.11-2 (page 72) – correct boundaries and colours as per Block 1 report

673. The corrected maps, as discussed in the Block 1 s42A report, are now complete, but may need further adjustment based on the recommendations of the Hearing Panel. Drafts are available if requested.

C4.12. Te Reo

674. There are various new or amended Te Reo phrases. As the s42A reporting represents an interim position, WRC will provide the Hearing Panel with appropriate Te Reo translations to include in the final version.

Recommendation on submissions:

1. Accept all those submissions that supported the plan provisions which are recommended to remain unchanged or largely unchanged

2. Reject those submissions who sought the deletion of the Plan Provisions which are recommended to remain unchanged or largely unchanged

3. Accept, or accept to the extent, those submissions that sought the changes recommended as set out in the revised plan provisions

4. Reject, or reject to the extent, those submissions that do not support the changes recommended as set out in the revised plan provisions

Appendix A – Reporting Officers

675. The Section 42A Reporting Officers for this section of the report are:

Matthew McCallum-Clark

676. Matthew is a resource management consultant and a director of the firm Incite. Matthew holds a Bachelor of Laws from Canterbury University, a Bachelor of Commerce (Economics) from Otago University and has undertaken a postgraduate diploma in environmental auditing through Brunel University in the UK. Matthew is a qualified and experienced independent hearing commissioner, with chair endorsement. Matthew has been a resource management consultant for over 20 years.

Alana Mako

677. Alana is a Policy Advisor employed at WRC in the Water Policy Team. Alana holds a Bachelor of Resource and Environmental Planning with Honours from Massey University and has two years' planning experience working in local government.

Adele Dawson

678. Adele is a Senior Resource Management Planner employed by Incite. Adele holds a Bachelor of Arts (Geography and Sociology) from Canterbury University and a Masters of Resource and Environmental Planning from Massey University. Adele has over 7 years of experience in resource management and planning and is a full member of the New Zealand Planning Institute.

Naomi Crawford

679. Naomi is a Policy Advisor employed at WRC in the Water Policy Team. Naomi holds a Bachelor of Science and Technology and a Master's Degree with Honours in Biological Sciences from the University of Waikato, and has completed post graduate studies in Legal Principles and processes for planners and natural resource planning at Massey University and the University of Waikato. Naomi has over 11 years' experience in local government in resource management and planning.

Liz White

680. Liz is a Senior Resource Management Consultant at Incite. Liz holds a Bachelor of Arts from the University of Canterbury and a Master of Resource and Environmental Planning from Massey University. Liz has over twelve years of resource management and planning experience spanning both the public and private sectors.

Ruth Lourey

681. Ruth is a Senior Policy Advisor employed at WRC in the Water Policy Team.

Appendix B – Relevant Submitters

(See separate document – *Section 42A report - PC1 Block 3 - Appendix B - Relevant Submitters as at 13 June 2019* DOC#14453048)

Appendix C – Tracked Changes PC1

(See separate document – *Section 42A report - PC1 Block 3 08 May 2019 - Appendix C - Tracked Changes PC1* DOC#14316900)

Appendix B – Relevant Submitters

Submissions addressed in Section C1. Commercial Vegetable Production

Submitter No	Submitter
73142	A S Wilcox & Sons Ltd
72441	Advisory Committee on Regional Environment (ACRE)
74140	AFFCO New Zealand Limited
73374	Alcock and Easton, Jo and John
73376	Alcock, Carl and Jo
73734	Allen, John
73978	Anderson, Graham Harold
73085	Anderson, Jack L and Ann A
82025	Angus Holdings (1991) Ltd
82008	Ashby, Joanna Lee and Raymond John
73020	Aston, Lucy
73811	Aston, Penelope
74085	Auckland/Waikato Fish and Game and Eastern Region Fish and Game
73627	Awaroa Lands Ltd
73689	B Das and Sons Ltd
72821	Babington, Cliff and Leonie
71761	Babington, Kelvin and Katherine
73926	Bailey, James
74036	Ballance Agri-Nutrients Limited
67834	Balle Bros Group
73369	Beef + Lamb New Zealand Limited
72028	Black Jack Farms
73880	Blair, Shane David Andrew
73984	Boom, Robin
73938	Briggs, Graham John
73920	Briggs, Robin John
71174	Brooks, Hayden Gregory and Susan Jennifer
74006	Carey, Rita Anne
72776	Chapman, Brenhan J
73086	Chapman, John K
73084	Chapman, Sharon M
72779	Chapman, Victor J
71344	Charion Investment Trust
73762	Chhagn Bros Co Ltd
73985	Chick, Adam Ross
73064	Christian and Anderson, Ashley John and Frances Ann
71621	Clarke, Hamish
73097	Clements, Robyn Ethel

Submitter No	Submitter
72492	Clover Farm Limited
74026	CNI Iwi Land Management Limited
71424	Coleman, Mark and Ruth
60404	Costar, Rosemarie
59884	Cotman, Jim
73072	Craig, Jeffery
73065	Crichton, John
74030	Cronin, G
73862	Dawson, Lesley Fae
71226	de Thierry and Gawne, John William and Wendy Doreen
71759	Department of Conservation
73980	Dixon, Grant
71249	Dunlop, Tania
74144	Eru Nikorima Trust
71210	Ewen, Andrew Hamish and Nicole Lisa
73798	Farm Environment Trust (Waikato)
73355	Farmers 4 Positive Change (F4PC)
74191	Federated Farmers of New Zealand
73305	Fertiliser Association of New Zealand
72021	Findlay, Andrew
73713	Findlay, Thomas David
73848	Fletcher Trust
74057	Fonterra Co-operative Group Ltd
71297	Fullerton, Angela Margaret
72820	Gaudin, Philip and Pauline
73800	Gleeson, Graeme B
73028	Glenshee Trust
74137	Gooding, Penny
73795	Gourmet Mokai Ltd
72144	Greenlea Premier Meats Ltd
73945	Guy, Denise and John
53103	Hahn, Jacqueline Marie
72688	Hale, Timothy John
73724	Hancock Forest Management (NZ) Ltd
73151	Hansen, Michael
73275	Hansen, Robin Arthur and Gillian Joy
72017	Harris, Mark Beaven
71246	Hart, John Henry and Susan Graham
71192	Harvey, Brett and Amanda
73890	Hawkes, Irwin Lawrence and Yvonne Jean
71342	Henderson, Ken
72966	Herewahine Trust
71757	Hira Bhana and Co Ltd
73412	Horsley, Cam, Bridget, Rob and Tennille
73801	Horticulture New Zealand (HortNZ)

Submitter No	Submitter
71391	Hurley, Peter James
71214	Jeffries, Gary and Joy
71429	Jivan Produce Ltd
73578	JN & VL Gilbert Family Trust
73439	Jodean Farms
71349	Jolly, Andrew
73749	Jolly, Richard Kellie Alexander
71200	Juno, Anne and Allen
73490	Kay, Richard
73042	Kelton, Simon Douglas and Adrienne Judith
72891	Kent and Gilbert, Elliot and Heather
72710	Kidd, Peter Arthur and Marilyn May
72950	Kilgour, Gareth
72589	Lacewood Holdings Ltd
60681	Laurich, David Anthony and Valda Joy Benner
73903	Lea, Charles Steven
72932	Lee, Malcolm and Sally
71353	Leveson and Gower, Alexander and Vicki
73758	Living Foods Ltd
71258	Lord, David Graeme
71433	Macdonald, Hamish Stuart
73729	Makan Daya & Co Ltd
73730	Maniapoto Māori Trust Board
73419	Matamata-Piako District Council
74148	Matira Sub Catchment Group
73990	Maungatautari Marae
72881	Mayne, Anna
72921	McAlister, James and Maeve
71175	McClunie, Joseph and Margaret
73534	McGregor, Colin Grant
72498	McLaughlin, Kate
73359	McLean, Parekawhia
73799	MD & CA Camp
73182	Mercury NZ Limited
73111	Moerangi Trust
73770	Moleta, Anita
72105	Murphy, William S
73466	Neal, Craig Andrew Lamont and Tracey Anne
73054	Nelson Farms Partnership
82030	New Zealand Thoroughbred Breeders' Association
81968	New Zealand Trainers' Association
74088	Ngaati Tamaoho Trust Te Taiao Roopuu
73515	Ngati Haua Iwi Trust
73025	Ngati Haua Tribal Trust
73891	Nicholas, Michael George, Raewyn Joan and Jonathon George

Submitter No	Submitter
73725	Oji Fibre Solutions (NZ) Limited
74110	O'Kane, Clare
71343	Oliver, Richard Douglas
73021	Oliver, William and Karen
73704	Onewhero Tuakau Community Board
73249	Osborne, Bob, Judy, Kim and Janette
74055	Otorohanga District Council
73401	Paihere Farms Group
73929	Parrott, Dorothy Fay, Peter Jack, Katherine and Conor Reeves
73750	Parrott, Steven, Sandra, Alexander & Ulrika
73952	Passau, Mark and Amy
72488	Perfect Produce Co Ltd
74138	Pickens and Tanneau, Craig and Julie
74007	Pinnell, Graham
73545	Poohara Marae
74089	Potini Whaanau
71427	Primary Land Users Group
74220	Pukekohe Vegetable Growers Association Inc (PVGA)
73073	Pukerimu Farms Limited
73789	Pukeroa Farms
71291	Purdie, Les and Helen
71651	R.P O'Connor and Sons Ltd
73608	Ramsay Baker, Mark and Cathy
74073	Raukawa Charitable Trust
71223	Ravenscroft, Michael and Clare
74058	Ravensdown Limited
71614	Reeves and Taylor, James Gordon Livingston and Amy Louise
74183	Reymer, Garry
74162	Rickman, Antony Scott
72479	Robson, Angus
73415	Rotor Work Limited
72588	Rowe, Susan Helen
73425	Ryan Farms Ltd
72459	Save Lake Karapiro Inc
73946	Saxton, David Christopher
71760	Schuler Brothers Ltd
73024	Scott, Neil, Ann, Brent and Louise
73858	Shaw and Hall, Leigh Michael and Bradley John
82019	Shearer & Baverstock Cropping Ltd
73847	Sherlock, Jon and Fiona
60407	Sherlock, Richard
73514	Sieling Farms
73225	Simpson, Greg John
74145	Simpson, Jennifer
72892	South Waikato District Council

Submitter No	Submitter
71408	Southern Fresh Foods Ltd
73958	Spectrum Dairies Limited Partnership
67421	ST Growers Ltd
73721	Stark, Steven and Theresa
73804	Stokes Shorthorn Farm Ltd
73805	Stokes, Barbara Mary
73748	Stokes, Kelvin Arnold
73976	Stokman, Mark and Sharon
73851	Strang and Strang Limited
74155	Sutherland Produce Ltd
61093	Taupō Lake Care Incorporated
71441	Taylor and Mellow, Mary Jane and Carwyn David
73697	Te Arawa River Iwi Trust
74168	Te Awamaarahi Marae Trustees
74124	Te Kauri Marae
72893	Te Miro Farms Partnership
72690	Te Paiaka Lands Trust
73543	Te Runanga o Ngati Kea Ngati Tuara Trust
73361	Te Taniwha o Waikato
74105	Te Whakakitenga o Waikato Incorporated (Waikato-Tainui)
71219	Templeton, Heather and Murray
74122	The Royal Forest and Bird Protection Society of New Zealand Incorporated
73408	The Surveying Company Ltd
73997	The Worsp Family Trust
73877	Thomas, Kerry Louise
71208	Thomson, Peter
74043	Thorburn, Matthew Charles and Susan Raewyn
73036	Timberlands Limited
72544	Tiroa E Trust
72747	Treweek, Glen
72608	Trinity Lands Ltd
73915	Tuakau Proteins Limited
73769	Tuaropaki Trust
73928	Tucker, Geoff and Kara
74173	Turangawaewae Marae
73356	Tūwharetoa Māori Trust Board
73810	Verry, Adrian
73751	Waahi Pa Marae Committee
73537	Waahi Whaanui Trust
73069	Wai Shing Ltd
71346	Waiawa Farms
74035	Waikato and Waipā River Iwi
73418	Waikato District Council (WDC)
72890	Waikato Regional Council
67704	Waipā District Council

Submitter No	Submitter
74095	Wairakei Pastoral Ltd
73688	Waitomo District Council
72975	Wallace, Martin Lindsay
73078	Walter and Doran, Peter Alan Susan and Casey
71194	Walter, Philip
73286	Ward, Bruce
71442	Waterworth, Bruce Kenrick
71438	Waterworth, Jenefer Fay
71444	Waterworth, Lewis Bruce
71437	Waterworth, Serena
71355	Wellington Farms Ltd
73026	Wilcox, Alexander Greer and Glen Andrew
72505	Wildman, Anna Mary
72769	Williamson, Jack
73040	Williamson, Stephen David
71269	Worsp, Simon Wynn & Rosemary Elizabeth
71172	Yeates, Marilyn

Submissions addressed in Section C2. Sub-Catchment Planning

Submitter No	Submitter
73142	A S Wilcox & Sons Ltd
73978	Anderson, Graham Harold
74045	Ata Rangi 2015 Limited Partnership
73689	B Das and Sons Ltd
72821	Babington, Cliff and Leonie
71761	Babington, Kelvin and Katherine
72557	Balle, Patricia Katherine
71425	Barton, Rachel and Jonathan
73369	Beef + Lamb New Zealand Limited
67406	Brodie, Philip Donald
71174	Brooks, Hayden Gregory and Susan Jennifer
71421	Buckley, Carol
71423	Buckley, Peter Ross
73892	Buist Family Trust
60603	Cameron, Bruce
72776	Chapman, Brenhan J
73086	Chapman, John K
73084	Chapman, Sharon M
72779	Chapman, Victor J
71344	Charion Investment Trust
73762	Chhagn Bros Co Ltd
74026	CNI Iwi Land Management Limited
73856	Coup, Martin Ross Amesbury
73870	Cuttance, William
74050	DairyNZ
73782	Dean, David
72701	Denize, Mathew John
71759	Department of Conservation
71395	Eight Mile Farms Ltd
74152	Empson, Alan Jephson Howard
71210	Ewen, Andrew Hamish and Nicole Lisa
74191	Federated Farmers of New Zealand
73305	Fertiliser Association of New Zealand
73848	Fletcher Trust
74057	Fonterra Co-operative Group Ltd
72610	Fonterra Shareholders Council
73922	Fuller, Mark Allan
74066	Garland, Suzanne Merle and William Graham
73061	Goddard, Allan and Mary-Anne
72983	Goodwright, Sydney Alfred
73954	Graymont (NZ) Limited
73945	Guy, Denise and John
53103	Hahn, Jacqueline Marie

Submitter No	Submitter
73724	Hancock Forest Management (NZ) Ltd
73631	Henson, Edgar
71757	Hira Bhana and Co Ltd
72851	Holland, John David and Roselei Elizabeth
73971	Holmes, Gavin
73412	Horsley, Cam, Bridget, Rob and Tennille
73801	Horticulture New Zealand (HortNZ)
72582	Huirimu Farms Ltd
72989	Jefferis, Daniel
71429	Jivan Produce Ltd
73245	Johnston, Phillip
71200	Juno, Anne and Allen
72950	Kilgour, Gareth
60693	King Country Energy Limited
72143	KiwiLane Ltd
53342	Lakes and Waterways Action Group Trust (LWAG)
72932	Lee, Malcolm and Sally
72535	Lichtwark, Quintin Owen
73758	Living Foods Ltd
74084	Loader, A J
73464	Logan, Andrea Jane
71753	Lumbercorp NZ Ltd
71695	Mackenzie, David Stuart
74150	Macnab, Rob and Tina
73729	Makan Daya & Co Ltd
72412	Mangakotukutuku Stream Care Group Incorporated
73730	Maniapoto Māori Trust Board
73419	Matamata-Piako District Council
73990	Maungatautari Marae
73377	McKie, David Robert and Carmel Ann
72984	McLaughlin, Robyn and Peter
73359	McLean, Parekawhia
73182	Mercury NZ Limited
73492	Miraka Limited
71439	Morison, Steve and Toni
71422	Muir, Mark
71419	Munro, David Malcolm and Lisa Ann
73802	Neal, Phillip John and Kristin Marie
73780	New Zealand Pork Industry Board
73790	New Zealand Steel Ltd
74088	Ngaati Tamaoho Trust Te Taiao Roopuu
73515	Ngati Haua Iwi Trust
72447	Nicholson, Chris and Vikki
73693	Noakes, Anna
73725	Oji Fibre Solutions (NZ) Limited

Submitter No	Submitter
73021	Oliver, William and Karen
73249	Osborne, Bob, Judy, Kim and Janette
74000	Pamu Farms of New Zealand
73929	Parrott, Dorothy Fay, Peter Jack, Katherine and Conor Reeves
73750	Parrott, Steven, Sandra, Alexander & Ulrika
71290	Peers-Adams, Samuel, Laura and Bronwyn
72488	Perfect Produce Co Ltd
74197	Peters, Michael Joseph
71231	Phillips, Neal
74138	Pickens and Tanneau, Craig and Julie
73545	Poohara Marae
74089	Potini Whaanau
73785	Pouakani Trust
71427	Primary Land Users Group
74220	Pukekohe Vegetable Growers Association Inc (PVGA)
73763	Ransley, Adrienne Anne
73761	Ransley, Kelvin John
74073	Raukawa Charitable Trust
74058	Ravensdown Limited
72961	Reese, Kate and Aaron
73109	Reeve, Jocelyn Margaret
71614	Reeves and Taylor, James Gordon Livingston and Amy Louise
71201	Reeves, John
74141	Roberts, Jessica
73425	Ryan Farms Ltd
73709	Sattrup, Grahame Paul
71350	Scott, Fiona and John
71400	Shabor Ltd
73858	Shaw and Hall, Leigh Michael and Bradley John
73847	Sherlock, Jon and Fiona
60407	Sherlock, Richard
72508	Sherriff and Tatham, Mathew and Kim
72892	South Waikato District Council
74062	Southern Pastures Limited Partnership
73998	Stobie, Duncan, Loraine, Donald and Craig
74155	Sutherland Produce Ltd
74207	Taupō District Council
73697	Te Arawa River Iwi Trust
74168	Te Awamaarahi Marae Trustees
74124	Te Kauri Marae
73543	Te Runanga o Ngati Kea Ngati Tuara Trust
73361	Te Taniwha o Waikato
74105	Te Whakakitenga o Waikato Incorporated (Waikato-Tainui)
74122	The Royal Forest and Bird Protection Society of New Zealand Incorporated
73997	The Worsp Family Trust

Submitter No	Submitter
73036	Timberlands Limited
71751	Tirohanga Settlers and Sports Association
72608	Trinity Lands Ltd
73932	Trustees of Highfield Deer Park
74173	Turangawaewae Marae
73356	Tūwharetoa Māori Trust Board
72587	Twining, Murray Ian and Robyn Joy
60476	Verkerk, Gwyneth
72887	Verry, Reon and Wendy
73751	Waahi Pa Marae Committee
73537	Waahi Whaanui Trust
73069	Wai Shing Ltd
74035	Waikato and Waipā River Iwi
72890	Waikato Regional Council
74095	Wairakei Pastoral Ltd
72480	Wairarapa Moana Incorporation
73688	Waitomo District Council
73919	Walker, Richard
72975	Wallace, Martin Lindsay
73286	Ward, Bruce
71437	Waterworth, Serena
71841	Welch, Andrew
73277	White Pine Dairies Ltd
73026	Wilcox, Alexander Greer and Glen Andrew
72505	Wildman, Anna Mary
71228	Williamson, Terry
67313	Woodacre Partnership
71269	Worsp, Simon Wynn & Rosemary Elizabeth
73096	Yule, Don, Lauris and Yvette

Submissions addressed in Section C3. Farm Environment Plans (Schedule 1)

Submitter No	Submitter
74154	Adams, Neville
72441	Advisory Committee on Regional Environment (ACRE)
74140	AFFCO New Zealand Limited
71238	Aitken, David John
73374	Alcock and Easton, Jo and John
73376	Alcock, Carl and Jo
73438	Allan, Eric
73734	Allen, John
73085	Anderson, Jack L and Ann A
82008	Ashby, Joanna Lee and Raymond John
73020	Aston, Lucy
73811	Aston, Penelope
74045	Ata Rangi 2015 Limited Partnership
72550	Atkinson, John
73077	Atkinson, Richard
73518	Auckland Council
71612	Auckland Regional Public Health Service
74176	Austin, John Desmond
67699	Avery, Kim
73627	Awaroa Lands Ltd
73689	B Das and Sons Ltd
72821	Babington, Cliff and Leonie
71761	Babington, Kelvin and Katherine
73926	Bailey, James
73936	Bain, Richard Alexander
74036	Ballance Agri-Nutrients Limited
67834	Balle Bros Group
73068	Barker, Karen
73079	Barnett, Michael
71425	Barton, Rachel and Jonathan
72389	Bayly, Trevor and Bev
73369	Beef + Lamb New Zealand Limited
73982	Beex, Henry John
72987	Bell, Daphne Lois
73496	Bellview Plains Ltd
72929	Bennett, Lindy and Michael
73409	Bennett, Martin
72009	Bentham Farms Ltd
72770	Bignell, Tony and Hannah
74090	Bilby, Lorraine
73613	Birchall, David Richard

Submitter No	Submitter
71080	Birkett, Bev and Bill
72028	Black Jack Farms
71436	Bleakley, Norman James
73539	Bolt Trust, King Country Partnership 2013 LP and Lone Pine Trust
73984	Boom, Robin
72911	Brewer, Kylie Lynn
73052	Brier, Graeme Anthony
73920	Briggs, Robin John
67406	Brodie, Philip Donald
74121	Brook, Jeremy
71174	Brooks, Hayden Gregory and Susan Jennifer
71237	Brough, John Conroy
71339	Broughton, Baden Charles
72628	Brown, Peter
71696	Browne, Allan Steward and Toni Rebecca
73774	Buchanan, Conall
73696	Buchanan, Jason Robert
74125	Bull, Gerald
73532	Burdett, Laurie
72772	Butler, Philip David Francis and Lois Elizabeth
72865	C&A Neville Family Trust
74171	Callaghan, Martyn
74006	Carey, Rita Anne
73372	Carter, Michael and Jackie, Matthew and Amy
74159	Carter, Shaun Colin Thomas
73336	Carter, Shirley Patricia
71443	Cheyne, David
73985	Chick, Adam Ross
53276	Chick, Leith Roger
73064	Christian and Anderson, Ashley John and Frances Ann
73149	Clapcott, Anson
72625	Clapcott, Michael John
73221	Clark, Craig
73032	Clarke, Campbell
71621	Clarke, Hamish
73097	Clements, Robyn Ethel
74026	CNI Iwi Land Management Limited
71424	Coleman, Mark and Ruth
71337	Coles, Donald Percy
71202	Collins, Nick
74151	Constantine, Dale Andrew
71663	Cook, Ian and Doreen
73467	Corlett, Peter Valentine
59884	Cotman, Jim
73856	Coup, Martin Ross Amesbury

Submitter No	Submitter
73023	Cox, Ian Graeme and Beverley Mae
73072	Craig, Jeffery
72502	Cranleigh Agri-Business Trust
73767	Crawford, Fraser and Liz
74056	Croft, Shane Lowell Mark
74030	Cronin, G
74050	DairyNZ
72024	Delrane-Jessen Holdings Limited
73850	Denize, Brendan
72701	Denize, Mathew John
71759	Department of Conservation
73980	Dixon, Grant
72831	Drummond Dairy Holdings Ltd
73222	Dudding Farms
73852	Dudin, Alan and Sarah
73410	Duncan, Andrew Richard
71249	Dunlop, Tania
71085	Edmonds, Suzanne Louise
71395	Eight Mile Farms Ltd
71173	Ellery, Ian Yates
73413	Elliott, Peter and Dagmar
74152	Empson, Alan Jephson Howard
71210	Ewen, Andrew Hamish and Nicole Lisa
71405	Eyre, Stuart Murray
73798	Farm Environment Trust (Waikato)
73355	Farmers 4 Positive Change (F4PC)
73720	FarmRight
74191	Federated Farmers of New Zealand
73305	Fertiliser Association of New Zealand
72021	Findlay, Andrew
73509	Findlay, James Thomas
73713	Findlay, Thomas David
73302	Finlay, Drewe Clayton
72026	Fisher, John Wallter
74289	FitzGerald, Geoffrey and Johanna
74075	Fleming, Gordon Gerald Shane
73966	Fogarty, David
74057	Fonterra Co-operative Group Ltd
73609	Foreman, Kerry Alan
73728	Forlong, Maurice and Karen
71247	Forster, David and Christina
71404	Francis, Sean Dean and Barnes, Jeanie Elizabeth
73118	Frederikson, Mark Gordon
73922	Fuller, Mark Allan
71297	Fullerton, Angela Margaret

Submitter No	Submitter
73754	Fullerton-Smith, Peter and Kirstin
74048	Fulton Hogan Limited
73999	Fursdon, Sonia
73460	Fyers, John and Joanne
74113	Gardon Limited
74066	Garland, Suzanne Merle and William Graham
71267	Gaston, Jo and Andrew
72820	Gaudin, Philip and Pauline
73846	Gavins Limited
73953	Genetic Technologies Ltd
72903	Gibb, Murray Bernard
73925	Gilbert, Ben and Leanne
72618	GKS Farms Ltd
73800	Gleeson, Graeme B
73061	Goddard, Allan and Mary-Anne
72962	Godley, Steve
74137	Gooding, Penny
73981	Gow, David John and Philippa Jewell
72144	Greenlea Premier Meats Ltd
73945	Guy, Denise and John
72664	H N Kloeten Ltd
72661	Haerepo Trust
53103	Hahn, Jacqueline Marie
72688	Hale, Timothy John
73694	Hamilton, Jean
73724	Hancock Forest Management (NZ) Ltd
71445	Hannon, Richard Garland
73151	Hansen, Michael
73275	Hansen, Robin Arthur and Gillian Joy
73451	Harding, Malcolm Garland
73708	Harre, Raymond and Janet
72017	Harris, Mark Beaven
72425	Harris, Peter John
71246	Hart, John Henry and Susan Graham
73519	Hart, Patrick
71192	Harvey, Brett and Amanda
73868	Hathaway, Bruce
71390	Hathaway, John
73890	Hawkes, Irwin Lawrence and Yvonne Jean
72613	Henderson, David and Sue
72016	Henderson, Neville James
73947	Hickey, Kevin Patrick
72387	Hicks, A D and R L
73321	Hill Country Farmers Group
73718	Homestead Oaks Ltd

Submitter No	Submitter
73517	Hooker, Geoff C
73975	Hooker, Peter George
71253	Horner, Bruce (EB & JC Horner)
73412	Horsley, Cam, Bridget, Rob and Tennille
73801	Horticulture New Zealand (HortNZ)
72483	Howlett, Roger and Gloria Dawn
72582	Huirimu Farms Ltd
72014	Hunter, Paul John
71347	Hurley, Carl
71391	Hurley, Peter James
73210	IB and IB Fyers
73423	J A Dekker Ltd
71214	Jeffries, Gary and Joy
73318	Jellie, Hugh
72756	Johns, Brian and Paulette
72728	Johnson, Richard Allen and Elizabeth Anne
73901	Johnstone, Allen and Jo
73614	Johnstone, Roger Kenneth
71349	Jolly, Andrew
71200	Juno, Anne and Allen
73765	Keeling, Peter
73944	Keighley, Albie John Hirst
73042	Kelton, Simon Douglas and Adrienne Judith
72891	Kent and Gilbert, Elliot and Heather
72710	Kidd, Peter Arthur and Marilyn May
73498	Kiely, Stephen Arthur
72950	Kilgour, Gareth
71692	Kjestrup, Michael Bruce
73918	Kjestrup, Stephen Bruce and Victoria Ann
73778	Koch Farms Limited
72707	Koster and Birdsall, Linda Jannet and Anthony Mackenzie
72589	Lacewood Holdings Ltd
74128	Langlands, Neil
60681	Laurich, David Anthony and Valda Joy Benner
73338	Laurich, Peter
73363	Lea, Helen
72932	Lee, Malcolm and Sally
73352	Leigh Family
74149	Leineweber, Jonathan William
67807	Leslie, David Wayne
74086	Leslie, Paul
71353	Leveson and Gower, Alexander and Vicki
72535	Lichtwark, Quintin Owen
72753	Liefting, John
74112	Litchfield, John

Submitter No	Submitter
74041	Livingston, Adrienne
74074	Lloyd, Matt
73495	Loft, Patricia
73454	Lumsden, Malcolm John
73431	MacDonald, Deborah
71433	Macdonald, Hamish Stuart
71243	MacLachlan, Ian Gibson and Susan Molly
74150	Macnab, Rob and Tina
72718	Mandeno, Mark
72412	Mangakotukutuku Stream Care Group Incorporated
73730	Maniapoto Māori Trust Board
73776	Maraekowhai Ltd
71694	Martelli, John Charles
73022	Martin, Peter
73768	Matahuru Farms Ltd
73419	Matamata-Piako District Council
72837	Matham Trust
72833	Mathis, Mary-Ann
74148	Matira Sub Catchment Group
73990	Maungatautari Marae
72881	Mayne, Anna
72921	McAlister, James and Maeve
73457	McCaughan, Lance
71175	McClunie, Joseph and Margaret
72759	McCormick, Peter and Kirsty
74032	McDonald, Iain and Jackie
72145	McDonald, Kevin and Jane
73122	McFadden, Gifford Patrick and Robin
74160	McGahan, Michael
72969	McGovern, Annette
74204	McGrath, Colin and Karen
71428	McGrath, Jenene
72010	McGrath, Judith Muriel
73534	McGregor, Colin Grant
73381	McKie, Craig John
73377	McKie, David Robert and Carmel Ann
72698	McKnight, Euan and Sarah
72498	McLaughlin, Kate
73359	McLean, Parekawhia
73799	MD & CA Camp
73392	Meads, Glynn Colin and Joanne Leigh
73182	Mercury NZ Limited
72605	Miller, Michelle Beatrice
73492	Miraka Limited
73111	Moerangi Trust

Submitter No	Submitter
73120	Monk, Graeme
74078	Moss, George Wilder
72750	Murchie, Trevor Samuel
72105	Murphy, William S
73461	Narsha Farms Ltd
73466	Neal, Craig Andrew Lamont and Tracey Anne
73802	Neal, Phillip John and Kristin Marie
73054	Nelson Farms Partnership
71702	New Zealand Association of Resource Management
71229	New Zealand Grain and Seed Trade Association
73558	New Zealand Institute of Primary Industry Management - Waikato Branch
73780	New Zealand Pork Industry Board
74088	Ngaati Tamaoho Trust Te Taiao Roopuu
73515	Ngati Haua Iwi Trust
71207	Nichol, Peter
73891	Nicholas, Michael George, Raewyn Joan and Jonathon George
73693	Noakes, Anna
73705	North Waikato Federated Farmers
72758	Oatway, Hugh Robert
73725	Oji Fibre Solutions (NZ) Limited
74110	O'Kane, Clare
73114	O'Leary, Leslie John
71870	Oliver, Duncan
74037	Oliver, John Rutherfurd
73021	Oliver, William and Karen
74003	Olsen, David Edward
74182	Open Country Dairy
72967	Orlando-Reep, Tim
73249	Osborne, Bob, Judy, Kim and Janette
74034	Osborne, Gary
74190	Osborne, John and Margaret
73401	Paihere Farms Group
74000	Pamu Farms of New Zealand
73181	Parker, Michael David
73929	Parrott, Dorothy Fay, Peter Jack, Katherine and Conor Reeves
73750	Parrott, Steven, Sandra, Alexander & Ulrika
73453	Parry, Bruce Bregmen
73368	Paterson, Chris and Amy
73058	Peacocke, Matthew Anthony
71290	Peers-Adams, Samuel, Laura and Bronwyn
71335	Pemberton, Russell James
73899	Peterson and Carswell, Lance Colin and Sarah
73777	PG & KF West Ltd
71231	Phillips, Neal
74138	Pickens and Tanneau, Craig and Julie

Submitter No	Submitter
74007	Pinnell, Graham
71216	Pitts-Brown, Brian
73545	Poohara Marae
73940	Potter, Antony Simon
71236	Potter, Arthur Graham
72823	Potter, Neil and Helen
73785	Pouakani Trust
72960	Prendergast, Nick and Cathy
71427	Primary Land Users Group
73073	Pukerimu Farms Limited
73789	Pukeroa Farms
71291	Purdie, Les and Helen
71651	R.P O'Connor and Sons Ltd
73608	Ramsay Baker, Mark and Cathy
73366	Randell, John Ellisden
74073	Raukawa Charitable Trust
71223	Ravenscroft, Michael and Clare
74058	Ravensdown Limited
73109	Reeve, Jocelyn Margaret
71614	Reeves and Taylor, James Gordon Livingston and Amy Louise
71201	Reeves, John
73549	RF & CL Lansdaal Ltd
73395	Richardson, David
74141	Roberts, Jessica
72497	Roberts, Peter
72907	Robinson Williams Farm Trust
72479	Robson, Angus
73889	Rogers, Philip William
72849	Rollett Farms Ltd
71199	Rombouts, Cornelis PM and Johanna M
73585	Ronaldson, David
73415	Rotor Work Limited
72588	Rowe, Susan Helen
73387	Rushala Farm Ltd
73702	Russell, Roger Michael
72459	Save Lake Karapiro Inc
73946	Saxton, David Christopher
72401	Sellars, Michael David and Alison Jean
71400	Shabor Ltd
73858	Shaw and Hall, Leigh Michael and Bradley John
73847	Sherlock, Jon and Fiona
60407	Sherlock, Richard
72508	Sherriff and Tatham, Mathew and Kim
73514	Sieling Farms
73225	Simpson, Greg John

Submitter No	Submitter
74145	Simpson, Jennifer
67472	Simpson, Trevor Andrew
72029	Sinclair Family Trust
73942	Slack, Hayden Robert
71410	Smyth, Mark Stewart Jonas
72892	South Waikato District Council
74062	Southern Pastures Limited Partnership
73958	Spectrum Dairies Limited Partnership
73721	Stark, Steven and Theresa
71411	Stewart, Mark
73998	Stobie, Duncan, Loraine, Donald and Craig
73804	Stokes Shorthorn Farm Ltd
73748	Stokes, Kelvin Arnold
71402	Stokes, Olive Fay
73976	Stokman, Mark and Sharon
73851	Strang and Strang Limited
71446	T.A. Reynolds Ltd
71416	Tadema, John
72146	Taniwha Estate Ltd
73435	Tapp, Kevin
73013	Tapp, Warren
61093	Taupō Lake Care Incorporated
71441	Taylor and Mellow, Mary Jane and Carwyn David
71081	Taylor, Janet
72565	Taylor, Keri Anne
73697	Te Arawa River Iwi Trust
71204	Te Aroha Federated Farmers
74168	Te Awamaarahi Marae Trustees
74124	Te Kauri Marae
72893	Te Miro Farms Partnership
72690	Te Paiaka Lands Trust
73543	Te Runanga o Ngati Kea Ngati Tuara Trust
74105	Te Whakakitenga o Waikato Incorporated (Waikato-Tainui)
68016	Te Whenua O Matata Ltd
73066	TerraCare Fertilisers Limited
74122	The Royal Forest and Bird Protection Society of New Zealand Incorporated
73997	The Worsp Family Trust
82022	Theland Tahi Farm Group Limited
73877	Thomas, Kerry Louise
71208	Thomson, Peter
74043	Thorburn, Matthew Charles and Susan Raewyn
73091	Tierney, Colm and Gaynor
72544	Tiroa E Trust
74060	Tongariro Taupō Conservation Board
73508	Torstonson, Shayne Kingsley

Submitter No	Submitter
74186	TOTI Trust
72747	Treweek, Glen
73932	Trustees of Highfield Deer Park
73928	Tucker, Geoff and Kara
74173	Turangawaewae Marae
73883	Turton, Francis James
73356	Tūwharetoa Māori Trust Board
72970	Upper Maire Creek Sub Catchment
71906	van der Laan, Menso W R
60476	Verkerk, Gwyneth
72887	Verry, Reon and Wendy
73690	Volker, Peter
74087	Vos, Rene Alexander and Ereine Johanna
73751	Waahi Pa Marae Committee
73537	Waahi Whaanui Trust
82023	Waeranga Partnership
71188	Wagstaff, Nigel and Sally
71346	Waiawa Farms
74008	Waikato and Waipā Branches of the New Zealand Deer Farmers Association
74035	Waikato and Waipā River Iwi
73418	Waikato District Council (WDC)
73436	Waikato Environment Centre
73934	Waikato Federated Farmers Meat & Fibre Industry Group
72148	Waikato Focus on Peat Group
67970	Waikato Groundspread Association
72890	Waikato Regional Council
74033	Waikato River Authority
67704	Waipā District Council
73863	Waipāpa Farms Ltd and Carlyle Holdings Ltd
74095	Wairakei Pastoral Ltd
72480	Wairarapa Moana Incorporation
73441	Waitaka Farming Partnership
73124	Waitomo Catchment Trust Board
73688	Waitomo District Council
73458	Walker, Patience Anne LeSuer
72975	Wallace, Martin Lindsay
72665	Ward, Simeon
61004	Ward, Theodora C.
73176	Waterworth, Ashley
73180	Waterworth, Ashley
71442	Waterworth, Bruce Kenrick
71438	Waterworth, Jenefer Fay
71444	Waterworth, Lewis Bruce
71437	Waterworth, Serena
73059	Watson, David and Sheona

Submitter No	Submitter
72829	Webber, Richard Mark
73501	Wilding, Anthony Gordon
72505	Wildman, Anna Mary
72486	Williams, Annette Judith
71432	Williams, Ian David
72487	Williams, Janet Beverley
73957	Williamson, Don and Robyn
72769	Williamson, Jack
73040	Williamson, Stephen David
71228	Williamson, Terry
72954	Wills, Alan Bryan
73923	Wilson, Mark
73787	Win Dee Farms (2007) Ltd
73992	Winstone Aggregates
73969	Wiremu Trust
71269	Worsp, Simon Wynn & Rosemary Elizabeth
72624	Wright, Nathan John
73228	Young, Peter Robert Orr
73362	Young, Ronald Ivan

Submissions addressed in Section C4. Miscellaneous

Submitter No	Submitter
73142	A S Wilcox & Sons Ltd
72441	Advisory Committee on Regional Environment (ACRE)
74140	AFFCO New Zealand Limited
71238	Aitken, David John
73374	Alcock and Easton, Jo and John
73376	Alcock, Carl and Jo
73978	Anderson, Graham Harold
73085	Anderson, Jack L and Ann A
71230	Andree-Wiltens, Albert John
82025	Angus Holdings (1991) Ltd
72614	Anselmi, Denzil Peter
82008	Ashby, Joanna Lee and Raymond John
73020	Aston, Lucy
73811	Aston, Penelope
74045	Ata Rangi 2015 Limited Partnership
71612	Auckland Regional Public Health Service
74085	Auckland/Waikato Fish and Game and Eastern Region Fish and Game
74176	Austin, John Desmond
73627	Awaroa Lands Ltd
72821	Babington, Cliff and Leonie
71761	Babington, Kelvin and Katherine
73926	Bailey, James
72499	Baldwin, Gray and Marilyn
74036	Ballance Agri-Nutrients Limited
67834	Balle Bros Group
72557	Balle, Patricia Katherine
73075	Barker, Christopher Ferguson
73943	Barron, Daniel and Sarah
73083	Bartholomew and Tulloch, Flora Beryl and David John
71425	Barton, Rachel and Jonathan
73369	Beef + Lamb New Zealand Limited
74005	Begbie, Ruthana Okeroa
73911	Beverland, Robert William
72028	Black Jack Farms
73429	Bodley, Jefferis William
73539	Bolt Trust, King Country Partnership 2013 LP and Lone Pine Trust
72911	Brewer, Kylie Lynn
73052	Brier, Graeme Anthony
73938	Briggs, Graham John
73920	Briggs, Robin John
67406	Brodie, Philip Donald
73906	Bromham, Alexander David Clive & Judith Leigh
71174	Brooks, Hayden Gregory and Susan Jennifer

Submitter No	Submitter
71237	Brough, John Conroy
72628	Brown, Peter
72955	Brown, Tracy Lee
71421	Buckley, Carol
71423	Buckley, Peter Ross
72494	Buckthought, Phillip David and Andrea
74196	Burgenridge Limited
74171	Callaghan, Martyn
60603	Cameron, Bruce
74082	Carter, Graham Bruce
73372	Carter, Michael and Jackie, Matthew and Amy
74159	Carter, Shaun Colin Thomas
72776	Chapman, Brenhan J
73086	Chapman, John K
73084	Chapman, Sharon M
72779	Chapman, Victor J
71344	Charion Investment Trust
73762	Chhagn Bros Co Ltd
73985	Chick, Adam Ross
53276	Chick, Leith Roger
73064	Christian and Anderson, Ashley John and Frances Ann
73149	Clapcott, Anson
73723	Clapcott, Sarah V
73221	Clark, Craig
74002	Clark, Wendy
73032	Clarke, Campbell
73779	Clarke, Stuart Gordon
71426	Clayton-Greene, Cindy and Warren
73097	Clements, Robyn Ethel
74026	CNI Iwi Land Management Limited
71424	Coleman, Mark and Ruth
71337	Coles, Donald Percy
72959	Coster, Paul
73072	Craig, Jeffery
74056	Croft, Shane Lowell Mark
74050	DairyNZ
72666	Darke, Anthony and Adana
73782	Dean, David
60477	Dean, Matthew D'Ornan Keith
73850	Denize, Brendan
72701	Denize, Mathew John
71759	Department of Conservation
73980	Dixon, Grant
71249	Dunlop, Tania
72722	Dysart, James David

Submitter No	Submitter
71085	Edmonds, Suzanne Louise
73062	Eel Enhancement Company Ltd
71395	Eight Mile Farms Ltd
73313	Ellmers, Fiona Mary
74152	Empson, Alan Jephson Howard
71210	Ewen, Andrew Hamish and Nicole Lisa
72027	Falconer, Chris
73798	Farm Environment Trust (Waikato)
73720	FarmRight
74191	Federated Farmers of New Zealand
73305	Fertiliser Association of New Zealand
72825	Finalyson, Wendy
72021	Findlay, Andrew
73509	Findlay, James Thomas
73713	Findlay, Thomas David
74075	Fleming, Gordon Gerald Shane
73848	Fletcher Trust
73966	Fogarty, David
74057	Fonterra Co-operative Group Ltd
72610	Fonterra Shareholders Council
73728	Forlong, Maurice and Karen
71297	Fullerton, Angela Margaret
74048	Fulton Hogan Limited
73999	Fursdon, Sonia
74113	Gardon Limited
74066	Garland, Suzanne Merle and William Graham
73039	Garrett and McKay, Alan and Kathy
71267	Gaston, Jo and Andrew
72820	Gaudin, Philip and Pauline
71407	Gemmell, Richard
74052	Genesis Energy Limited
73953	Genetic Technologies Ltd
73925	Gilbert, Ben and Leanne
72438	Gill, Alan and Bonnie
73800	Gleeson, Graeme B
73061	Goddard, Allan and Mary-Anne
72983	Goodwright, Sydney Alfred
73954	Graymont (NZ) Limited
73945	Guy, Denise and John
53103	Hahn, Jacqueline Marie
72688	Hale, Timothy John
73493	Hamilton & Waikato Tourism
74051	Hamilton City Council
73694	Hamilton, Jean
74083	Hamilton, Malibu

Submitter No	Submitter
73724	Hancock Forest Management (NZ) Ltd
71445	Hannon, Richard Garland
73275	Hansen, Robin Arthur and Gillian Joy
74039	Harper, John
72017	Harris, Mark Beaven
71246	Hart, John Henry and Susan Graham
71192	Harvey, Brett and Amanda
72613	Henderson, David and Sue
73631	Henson, Edgar
68939	Heritage New Zealand Pouhere Taonga
73321	Hill Country Farmers Group
71261	Hill, John Cyril & Janice Mary
74129	Hill, Maxwell
71757	Hira Bhana and Co Ltd
73971	Holmes, Gavin
71253	Horner, Bruce (EB & JC Horner)
73412	Horsley, Cam, Bridget, Rob and Tennille
73801	Horticulture New Zealand (HortNZ)
53312	Houghton, James
72897	Howie and Frael, Jennie and Kelvin
72582	Huirimu Farms Ltd
74146	Hurley, Sonia Kerr
82006	Iwi of Hauraki
71618	J Swap Ltd
72989	Jefferis, Daniel
71214	Jeffries, Gary and Joy
73318	Jellie, Hugh
71429	Jivan Produce Ltd
73578	JN & VL Gilbert Family Trust
73439	Jodean Farms
72597	Johnston, Moss and Relda
73245	Johnston, Phillip
73034	Jones, Donna
71200	Juno, Anne and Allen
73490	Kay, Richard
73288	Keane, Elizabeth
73765	Keeling, Peter
73042	Kelton, Simon Douglas and Adrienne Judith
73771	Kenna, Grant and Catherine
72629	Kenna, Maurice James
72891	Kent and Gilbert, Elliot and Heather
73056	Kerr, Ian D
72710	Kidd, Peter Arthur and Marilyn May
72950	Kilgour, Gareth
72589	Lacewood Holdings Ltd

Submitter No	Submitter
53342	Lakes and Waterways Action Group Trust (LWAG)
74128	Langlands, Neil
52942	Lawson, John
73363	Lea, Helen
71227	Lean, Peta
72932	Lee, Malcolm and Sally
73352	Leigh Family
71353	Leveson and Gower, Alexander and Vicki
72535	Lichtwark, Quintin Owen
59096	Lindeman, Johannes
73758	Living Foods Ltd
73495	Loft, Patricia
73464	Logan, Andrea Jane
74070	Lovell, Christopher Joseph
71753	Lumbercorp NZ Ltd
73454	Lumsden, Malcolm John
73449	Lyons-Montgomery, Stephen
71433	Macdonald, Hamish Stuart
72981	MacInnes, Angus John and Karen Joy
72980	MacInnes, Mathew Angus and Natasha Joyce Ani
71695	Mackenzie, David Stuart
71187	Mackenzie, Malcolm John and Alison Nancy
71205	MacLachlan, Ian Gibson and Lindsay Phillip
71243	MacLachlan, Ian Gibson and Susan Molly
73074	MacLachlan, Lin and Adrienne
74150	Macnab, Rob and Tina
72604	Maihiihi Farmers Group (Submitter 1)
72598	Maihiihi Farmers Group (Submitter 2)
72602	Maihiihi Farmers Group (Submitter 3)
72600	Maihiihi Farmers Group (Submitter 4)
72606	Maihiihi Farmers Group (Submitter 5)
72590	Maihiihi Farmers Group (Submitter 6)
73729	Makan Daya & Co Ltd
73167	Mandeno, Thomas
82001	Mangahana Farm Limited Partnership
72412	Mangakotukutuku Stream Care Group Incorporated
73730	Maniapoto Māori Trust Board
73776	Maraekowhai Ltd
72445	Masters, Stuart Bruce, Melvah Joy and Brendon James
73419	Matamata-Piako District Council
72104	Matamua, Monica
74148	Matira Sub Catchment Group
73990	Maungatautari Marae
72881	Mayne, Anna
72921	McAlister, James and Maeve

Submitter No	Submitter
71175	McClunie, Joseph and Margaret
81970	McDonnell, David
72969	McGovern, Annette
71225	McKenzie, Colin and Valerie
73381	McKie, Craig John
72984	McLaughlin, Robyn and Peter
73359	McLean, Parekawhia
73541	McPherson, Robert
70619	McQuinn, Jason
73799	MD & CA Camp
72622	Meier, Peter
73182	Mercury NZ Limited
82003	Merrie, Mark
71212	Miller, Alexander Dane
81969	Millington, Ashleigh Chanelle Pardoe
74175	Mills, John
73492	Miraka Limited
71439	Morison, Steve and Toni
74078	Moss, George Wilder
73766	Mounsey, Zach
71422	Muir, Mark
71419	Munro, David Malcolm and Lisa Ann
73420	National Wetland Trust
73466	Neal, Craig Andrew Lamont and Tracey Anne
73803	Neal, Edward and Patricia
73802	Neal, Phillip John and Kristin Marie
73054	Nelson Farms Partnership
73698	New Zealand Farm Forestry Association - Waikato Branch
73524	New Zealand Forest Owners Association Inc
73558	New Zealand Institute of Primary Industry Management - Waikato Branch
73780	New Zealand Pork Industry Board
73790	New Zealand Steel Ltd
74088	Ngaati Tamaoho Trust Te Taiao Roopuu
73515	Ngati Haua Iwi Trust
82026	Ngati Koroki Kahukura Trust and Taumata Wiiwii Trust
71207	Nichol, Peter
73760	Nicholas, Rod and Wendy
72447	Nicholson, Chris and Vikki
73693	Noakes, Anna
73705	North Waikato Federated Farmers
73443	NZ Forest Managers Ltd
73542	NZ Transport Agency
73716	Oil Companies
73725	Oji Fibre Solutions (NZ) Limited
71079	Okell, Robert Steven

Submitter No	Submitter
71870	Oliver, Duncan
73021	Oliver, William and Karen
73249	Osborne, Bob, Judy, Kim and Janette
72920	Oxley, Michael L
73401	Paihere Farms Group
74000	Pamu Farms of New Zealand
73181	Parker, Michael David
73929	Parrott, Dorothy Fay, Peter Jack, Katherine and Conor Reeves
73750	Parrott, Steven, Sandra, Alexander & Ulrika
71290	Peers-Adams, Samuel, Laura and Bronwyn
73284	Pepper, Matt
72488	Perfect Produce Co Ltd
74197	Peters, Michael Joseph
71231	Phillips, Neal
74138	Pickens and Tanneau, Craig and Julie
74007	Pinnell, Graham
73545	Poohara Marae
73080	Port, Kelvin Robert
74089	Potini Whaanau
72823	Potter, Neil and Helen
73785	Pouakani Trust
71427	Primary Land Users Group
74220	Pukekohe Vegetable Growers Association Inc (PVGA)
73073	Pukerimu Farms Limited
71291	Purdie, Les and Helen
71651	R.P O'Connor and Sons Ltd
73608	Ramsay Baker, Mark and Cathy
73763	Ransley, Adrienne Anne
73761	Ransley, Kelvin John
73528	Rattray, Earl Steven
74073	Raukawa Charitable Trust
74058	Ravensdown Limited
73159	Rayonier Matariki Forests
72961	Reese, Kate and Aaron
73109	Reeve, Jocelyn Margaret
71614	Reeves and Taylor, James Gordon Livingston and Amy Louise
71201	Reeves, John
74183	Reymer, Garry
72599	Riverheads Ltd
74141	Roberts, Jessica
72479	Robson, Angus
73415	Rotor Work Limited
73373	Rotorua Lakes Council
72588	Rowe, Susan Helen
73425	Ryan Farms Ltd

Submitter No	Submitter
73709	Sattrup, Grahame Paul
72459	Save Lake Karapiro Inc
73946	Saxton, David Christopher
71350	Scott, Fiona and John
73024	Scott, Neil, Ann, Brent and Louise
73986	Scott, Peter
72401	Sellars, Michael David and Alison Jean
71400	Shabor Ltd
73858	Shaw and Hall, Leigh Michael and Bradley John
73847	Sherlock, Jon and Fiona
60407	Sherlock, Richard
72508	Sherriff and Tatham, Mathew and Kim
73514	Sieling Farms
73225	Simpson, Greg John
74145	Simpson, Jennifer
72029	Sinclair Family Trust
74047	Sinclair, Andrew and Louise
72020	Smith, Allan John
82018	Smith, Winton
71410	Smyth, Mark Stewart Jonas
72892	South Waikato District Council
74062	Southern Pastures Limited Partnership
67421	ST Growers Ltd
73721	Stark, Steven and Theresa
73732	Stevenson Resources Limited
73998	Stobie, Duncan, Loraine, Donald and Craig
73804	Stokes Shorthorn Farm Ltd
73365	Stokes, Evan
73748	Stokes, Kelvin Arnold
73851	Strang and Strang Limited
73924	Stubbs and Brown, Ben and Rebecca
74155	Sutherland Produce Ltd
71446	T.A. Reynolds Ltd
82065	Tait, Neil
72146	Taniwha Estate Ltd
74207	Taupō District Council
61093	Taupō Lake Care Incorporated
71081	Taylor, Janet
73697	Te Arawa River Iwi Trust
71204	Te Aroha Federated Farmers
74168	Te Awamaarahi Marae Trustees
74124	Te Kauri Marae
72978	Te Mata Group Ltd
72893	Te Miro Farms Partnership
73543	Te Runanga o Ngati Kea Ngati Tuara Trust

Submitter No	Submitter
73361	Te Taniwha o Waikato
74105	Te Whakakitenga o Waikato Incorporated (Waikato-Tainui)
71219	Templeton, Heather and Murray
73066	TerraCare Fertilisers Limited
74122	The Royal Forest and Bird Protection Society of New Zealand Incorporated
73408	The Surveying Company Ltd
73997	The Worsp Family Trust
82022	Theland Tahi Farm Group Limited
73091	Tierney, Colm and Gaynor
73964	TIM Nominees
73036	Timberlands Limited
71751	Tirohanga Settlers and Sports Association
72747	Treweek, Glen
72608	Trinity Lands Ltd
73932	Trustees of Highfield Deer Park
73915	Tuakau Proteins Limited
73769	Tuaropaki Trust
73928	Tucker, Geoff and Kara
74173	Turangawaewae Marae
73356	Tūwharetoa Māori Trust Board
72587	Twining, Murray Ian and Robyn Joy
72970	Upper Maire Creek Sub Catchment
74109	van der Voorden, Vera and Nora
60476	Verkerk, Gwyneth
73810	Verry, Adrian
72887	Verry, Reon and Wendy
73690	Volker, Peter
73751	Waahi Pa Marae Committee
73537	Waahi Whaanui Trust
82023	Waeranga Partnership
71188	Wagstaff, Nigel and Sally
73069	Wai Shing Ltd
71346	Waiawa Farms
74035	Waikato and Waipā River Iwi
74049	Waikato Dairy Leaders Group
73436	Waikato Environment Centre
73934	Waikato Federated Farmers Meat & Fibre Industry Group
72890	Waikato Regional Council
67704	Waipā District Council
73863	Waipāpa Farms Ltd and Carlyle Holdings Ltd
74095	Wairakei Pastoral Ltd
72480	Wairarapa Moana Incorporation
73441	Waitaka Farming Partnership
73688	Waitomo District Council
73919	Walker, Richard

Submitter No	Submitter
72975	Wallace, Martin Lindsay
73078	Walter and Doran, Peter Alan Susan and Casey
71194	Walter, Philip
73286	Ward, Bruce
74147	Ward-Allen, William Alec
74077	Watercare Services Ltd
73176	Waterworth, Ashley
73180	Waterworth, Ashley
71442	Waterworth, Bruce Kenrick
71438	Waterworth, Jenefer Fay
71444	Waterworth, Lewis Bruce
71437	Waterworth, Serena
73450	Weake, Jeffrey Laurence James
71355	Wellington Farms Ltd
74184	Welsh, Mikayla
72505	Wildman, Anna Mary
71432	Williams, Ian David
72769	Williamson, Jack
73040	Williamson, Stephen David
71228	Williamson, Terry
73992	Winstone Aggregates
73969	Wiremu Trust
58939	Wood, Doreen and Neville
67313	Woodacre Partnership
73806	Woods, Paula and Ken
71269	Worsp, Simon Wynn & Rosemary Elizabeth
72624	Wright, Nathan John
71172	Yeates, Marilyn
73096	Yule, Don, Lauris and Yvette

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

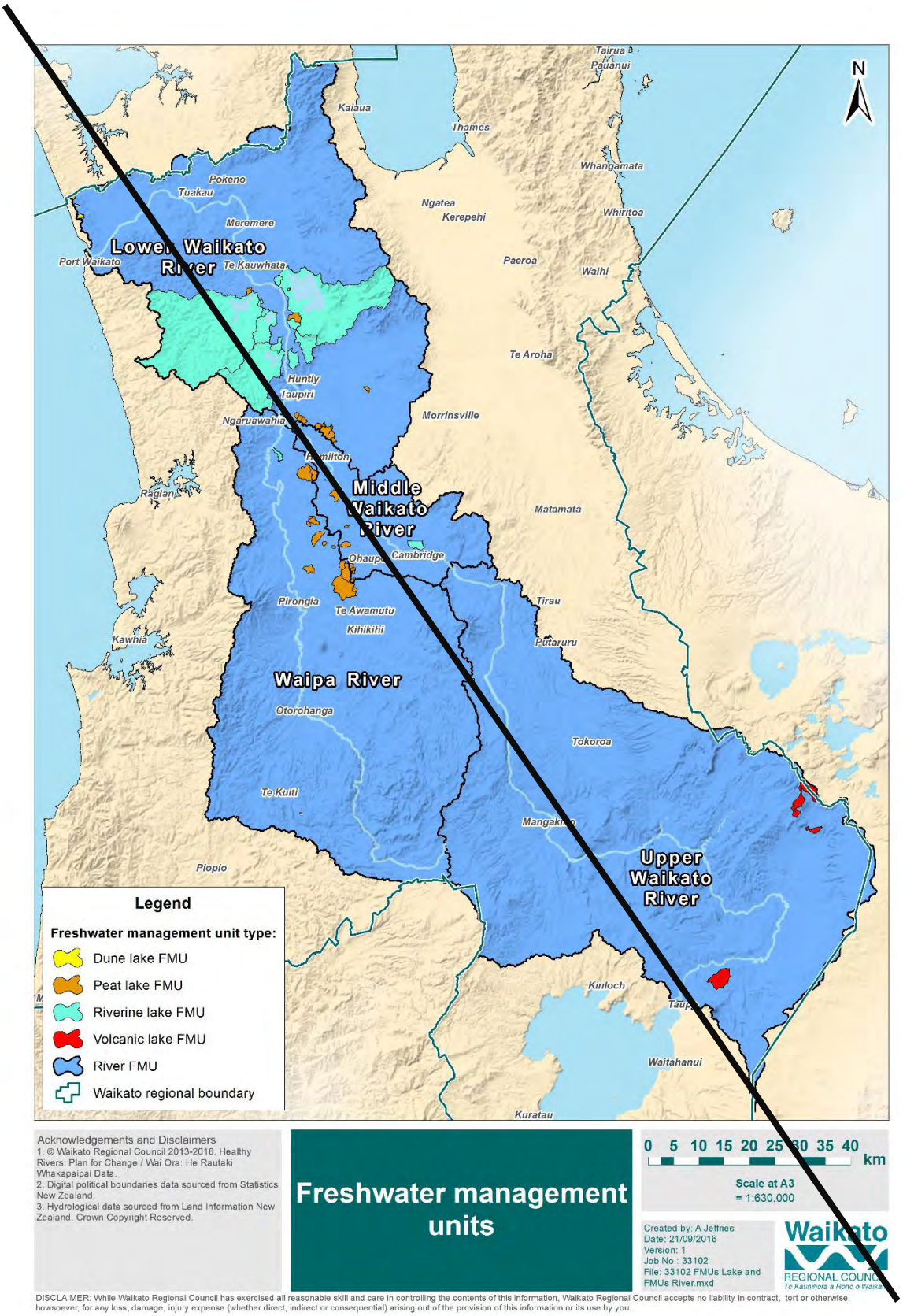
~~Notified version (October 2016)~~

Officer's Block 3 "Tracked Changes" Recommendations (relevant parts of PC1 only)

Red tracked changes are insertions or deletions due to Variation 1

Black tracked changes are insertions or deletions recommended by the Council Officers

Note: Parts in grey shading are Block 3 recommendations.
Parts with no shading are Block 2 recommendations.
Parts in green shading are Block 1 recommendations.



Map 3.11-1: Map of the Waikato and Waipa River catchments, showing Freshwater Management Units

Map 3.11-1: Map of the Waikato and Waipa River catchments, showing Freshwater Management Units

Background and explanation

Co-management of the Waikato and Waipa Rivers

There are three River Acts that establish co-governance arrangements for the Waikato and Waipa Rivers and catchment. These are Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010, Ngati Tuwharetoa, Raukawa, and Te Arawa River Iwi Waikato River Act 2010 and Nga Wai o Maniapoto (Waipa River) Act 2012.

The iwi partners in the development of Chapter 3.11 are Maniapoto, Raukawa, Ngāti Tūwharetoa, Te Arawa River Iwi and Waikato-Tainui. The processes for preparing, reviewing, changing or varying the regional plan, in terms of River Iwi involvement in the process, is set out in the legislation. This includes a requirement for Council to establish a Joint Working Party with each of the River Iwi, the purposes of which include making joint recommendations to the Council regarding the plan change.

The three River Acts established the Vision and Strategy for the Waikato River/Te Ture Whaimana o Te Awa o Waikato (Vision and Strategy) as the primary direction setting document for the Waikato and Waipa Rivers. The Vision and Strategy prevails over any inconsistencies in a national policy statement or New Zealand coastal policy statement, and is deemed to be part of the Waikato Regional Policy Statement.

The Vision and Strategy states that the Waikato and Waipa Rivers are degraded and require, amongst other things, restoration and protection. One objective[1] has been given particular focus for this chapter: The restoration of water quality within the Waikato River so that it is safe for people to swim in and take food from over its entire length. The Vision and Strategy is being given effect to in Chapter 3.11 by:

- Reducing nitrogen, phosphorus, sediment and microbial pathogen losses from land
- Ongoing management of diffuse and point source discharges of nitrogen, phosphorus, sediment and microbial pathogens
- Giving people and communities time to adapt to the requirements of Chapter 3.11 and supporting actions to achieve short-term objectives while being clear that further reductions in nitrogen, phosphorus, sediment and microbial pathogen losses from land will be required in subsequent regional plans
- Ensuring that Waikato Regional Council continues to facilitate ongoing research, monitoring and tracking of changes on the land and in the water to provide for the application of Mātauranga Māori and latest scientific methods, as they become available
- ~~Preparing for future requirements on what can be undertaken on the land, with limits^ ensuring that the management of land use and activities is closely aligned with the biophysical capabilities of the land, the spatial location, and the likely effects of discharges on the lakes, rivers and wetlands in the catchment.~~[2]

Collaborative approach

The co-governance partners agreed to adopt a collaborative approach to investigate and develop fresh water management approaches that would be implemented in the Waikato and Waipa River Catchments.

A key feature of the collaborative approach was the Collaborative Stakeholder Group (CSG), which represented stakeholders and the wider community in Healthy Rivers: Plan for Change/Wai Ora: He Rautaki Whakapaipai. The CSG was the central channel for stakeholder and broader community collaboration in the project. It intensively reviewed and deliberated on technical material from a group of external technical experts from a range of disciplines. For Proposed Plan Change 1, t~~T~~he CSG also sought input from their sectors and from the community, and ultimately proposed the contents of Chapter 3.11 to decision makers.

Consultation

Schedule 1 of the RMA includes requirements to consult with certain parties, including iwi authorities, during the preparation of the Variation. Consultation has taken place with affected parties including the relevant iwi authorities and the issues raised during consultation have been taken into account by Waikato Regional Council in the development of Variation 1. Consultation has led to a Variation to Proposed Plan Change 1.

[1] *Te Ture Whaimana o te Awa o Waikato, Objective K*
[2] Jack Farms PC1-8026, H and S Brooks PC1-84, Sieling Farms PC1-5465

Water quality and National Policy Statement for Freshwater Management

The National Policy Statement for Freshwater Management 2014 (NPS FM) requires regional councils to formulate freshwater objectives^ and set limits^ or targets^ (a target is a limit to be achieved within a specified timeframe). Regional councils must ensure over-allocation^ of the water resource is avoided, or addressed where that has already occurred.

Current water quality monitoring results show that while there is variability across the Waikato and Waipa River catchments, there are adverse effects on water bodies associated with discharges of nitrogen, phosphorus, sediment and microbial pathogens. The CSG concluded that from a water quality point of view, over-allocation^ has occurred. Water bodies in the Waikato and Waipa River catchments are not able to assimilate further discharges of nitrogen, phosphorus, sediment and microbial pathogens, without adversely affecting community-held values. Achieving the numeric, long-term freshwater objectives^ in Chapter 3.11 will require reductions in diffuse and point source contaminants.

The NPS FM directs the Waikato Regional Council to establish freshwater objectives^ that give effect to the objectives of the NPS FM and describe the state that Waikato regional communities want for fresh water in the future.

The NPS FM process followed in developing Chapter 3.11, included identifying FMUs and the values for each, and then choosing relevant water quality attributes^ and attribute states^ that can be monitored over time. Freshwater objectives^ and limits^ or targets^ set out what is required to achieve the attribute states^. Under the NPS FM, a limit^ is the maximum amount of resource use available, which allows a freshwater objective^ to be met.

The CSG identified resource use that affects the achievement of the freshwater objectives^ and long-term desired water quality, and for achieving the Vision and Strategy. Chapter 3.11 sets out policies and methods that restrict what can be done on the land and discharged to land or water.

Full achievement of the Vision and Strategy will be intergenerational

The CSG has chosen an 80-year timeframe to achieve the water quality objectives of the Vision and Strategy. The timeframe is intergenerational and more aspirational than the national bottom lines set out in the NPS FM because it seeks to meet the higher standards of being safe to swim in and take food from over the entire length of the Waikato and Waipa Rivers and catchment. Based on the information currently available, the CSG has concluded full achievement of the Vision and Strategy by 2096 is likely to be costly and difficult. The 80-year timeframe recognises the 'innovation gap' that means full achievement of water quality requires technologies or practices that are not yet available or economically feasible. In addition, the current understanding is that achieving water quality restoration requires a considerable amount of land to be changed from land uses with moderate and high intensity of discharges to land use with lower discharges (e.g. through reforestation).

Because of the extent of change required to restore and protect water quality in the 80-year timeframe, the CSG has adopted a staged approach. This approach breaks the required improvements into a number of steps, the first of which is to put in place and implement the range of actions in a 10 year period that will be required to achieve 10 percent of the required change between current water quality and the long term water quality in 2096. The staged approach recognises that immediate large scale land use change may be socially disruptive, and there is considerable effort and cost for resource users, industry and Waikato Regional Council to set up the change process in the first stage. New implementation processes, expertise and engagement are needed to support the first stage. The staged approach also allows time for the innovation in technology and practices that will need to be developed to meet the targets^ and limits^ in subsequent regional plans to be developed.

Because of the extent of change required to meet the 80-year limits^, achieving even the first step towards the long-term freshwater objectives in this Plan is an ambitious target. This means the effects of actions and changes on the land may not be seen as water quality improvements in the water bodies in the short term. This is partly due to the time required for the concentration of contaminants in the water to reduce, following mitigation actions being put in place, and specifically, the time it takes for nitrogen to move through the soil profile to groundwater, and then to surface water. This means that the effect of actions put in place to reduce nitrogen now may not be seen in the water for some time (the length of time lag varies across the catchment). It also means there is a nitrogen 'load to come' from historic land use that is yet to be seen in the water.

The approach to reducing contaminant losses from pastoral farm land implemented by Chapter 3.11 requires:

- stock exclusion from water bodies as a priority mitigation action

- Farm Environment Plans (including those for commercial vegetable producers) that ensure industry-specific good ~~management~~ farming practice, with monitoring and auditing to ensure outcomes are being achieved.~~and identify additional mitigation actions to reduce diffuse discharges by specified dates, which can then be monitored~~[3]
- a property scale nitrogen reference point to be established by modelling current nutrient losses from each property, with no property being allowed to increase losses ~~exceed its reference point~~[4] in the future and higher dischargers being required to reduce their nutrient losses
- an accreditation system to be set up for people who will assist farmers to prepare their Farm Environment Plan, and to certify agricultural industry schemes
- Waikato Regional Council to develop approaches outside the rule framework that allow contaminant loss risk factors to be assessed at a sub-catchment level, and implement mitigations that look beyond individual farm boundaries to identify the most cost-effective solutions.

There are a number of existing provisions, including rules, in the Waikato Regional Plan that will continue to apply for point source discharges.

Municipal and industrial point source dischargers will also be required to revise their discharges in light of the Vision and Strategy and the water quality objectives, and sub-catchment limits^ and targets^ that have been set. This will happen as the current consent terms expire.

~~There are a range of existing provisions in this Plan that deal with activities that relate to forestry. Forestry activities will continue to be managed by these existing provisions, with the addition of requirements around preparing harvest plans and notifying Waikato Regional Council of harvest activities.~~[5]

~~In the short term, l~~Land use change from tree cover to animal grazing, or any livestock grazing other the dairy or arable cropping to dairy, or any land use to commercial vegetable production, will be constrained. Provision has been made for some flexibility of land use for Māori land that has not been able to develop due to historic and legal impediments. As these impediments have had an impact on the relationship between tangata whenua and their ancestral lands, with associated cultural and economic effects, Chapter 3.11 seeks to recognise and provide for these relationships. ~~These constraints on land use change are interim, until a future plan change introduces a second stage, where further reductions in discharges of sediment, nutrients and microbial pathogens from point sources and activity on the land will be required. This second stage will focus on land suitability and how land use impacts on water quality, based on the type of land and the sensitivity of the receiving water. Methods in Chapter 3.11 include the research and information to be developed to support this.~~[6]

Reviewing progress toward achieving the Vision and Strategy

The overall intent of Chapter 3.11 is to require resource users to make a start on reducing discharges of contaminants as the first stage of achieving the Vision and Strategy, with on-farm actions carried out and point source discharges reviewed as existing resource consents come up for renewal. The staged approach gives people and communities time to adapt, while being clear that further reductions will be required by subsequent regional plans.

The Vision and Strategy contained in each of the three River Acts is required to be reviewed periodically by the Waikato River Authority, which may make changes to insert limits and methods.

The Resource Management Act requires that regional councils commence reviews of their regional plans 10 years after those plans are operative. When this is done in the future, further changes to reduce diffuse and point source discharges will need to follow the initial preparatory stage embodied in Chapter 3.11 of this Plan.

During the life of this Plan, Waikato Regional Council will track the progress of actions undertaken on the land towards achieving the Vision and Strategy. In addition, research and information collation will be used when this Plan is reviewed, to inform any future property-level allocation of contaminant discharges.

[3] G Carter PC1-8827, Wairakei Pastoral Ltd PC1-11406
[4] Balle Bros Group V1PC1-250
[5] Consequential to deletion of Part B
[6] Jack Farms PC1-8026, H and S Brooks PC1-84, Sieling Farms PC1-5465

Te Horopaki me ngā Whakamārama

Te whakahaere ngātahi i ngā awa o Waikato me Waipā

E toru ngā Ture mō ngā Awa e whakatū ana i ngā whakaritenga whakahaere ngātahi mō ngā awa o Waikato me Waipā, me ngā riu o aua awa. Ko ngā ture ēnei, ko te Te Ture Whakataunga Kokoraho Raupatu a Waikato-Tainui (Te Awa o Waikato) 2010, ko Te Ture o Ngā Iwi o Te Awa o Waikato 2010, arā o Ngāti Tūwharetoa, o Raukawa, o Te Arawa anō hoki me Te Ture o Ngā Wai o Maniapoto (Te Awa o Waipā) 2012.

Ko ngā āpiti ā-iwi i whai wāhi ki te whanaketanga o te Upoko 3.11, ko Maniapoto rātou ko Raukawa, ko Ngāti Tūwharetoa, ko ngā iwi o ngā awa o Te Arawa me Waikato-Tainui. Kei roto i te ture ngā whakamārama mō te āhua o te whai wāhitanga o ngā iwi o te awa ki ngā tukanga whakarite, arotake, panoni rānei i te mahere ā-rohe. Kei reira anō hoki te here kei runga i te Kaunihera ki te whakatū i tētehi Ohu Mahi Ngātahi i te taha o tēnā iwi, o tēnā iwi o te awa, ko tētehi o ngā aronga, ko te whakatakoto ngātahi i ngā tūtohunga ki te Kaunihera mō te panonitanga o te mahere.

I whakatūria Te Ture Whaimana o Te Awa o Waikato e ngā Ture e toru mō ngā Awa hei pukapuka matua e whakatau ana i te anga whakamuatanga mō ngā awa o Waikato me Waipā. Mehemea ka kitea he taupatupatutanga i tētehi Tauākī kaupapa here ā-motu, i te Tauākī kaupapa here takutai moana a Aotearoa rānei, kei runga ko Te Ture Whaimana, waihoki he wāhanga tēnei nō Te Tauākī Kaupapa Here ā-Rohe a Waikato.

E kī ana te Ture Whaimana, kua whakakinongia ngā awa o Waikato me Waipā, ā, me whakaora mai, me tiaki anō hoki ka tika, heoi he mahi anō i tua atu i ērā. E kaha arotahingia ana tētehi whāinga i tēnei upoko, arā ko te whakaoranga o te kounga wai o roto i te awa o Waikato, kia pai ai tā te tangata kaukau ki roto, kia pai ai te kohi kai i ngā wāhi katoa o te awa, mai i te mātāpuna ki te pūaha. E whakatinanahia ana te Ture Whaimana i te Upoko 3.11 mā te:

- whakaiti i te ngaronga o te hauota, o te pūtūtae-whetū, o te waiparapara me te tukumate ora poto i te whenua
- whakahaere tonu i te rukenga roha me te rukenga pū tuwha o te hauota, o te pūtūtae-whetū, o te waiparapara, o te tukumate ora poto anō hoki
- tuku i te tangata me ngā hapori kia taunga haere ai rātou ki ngā here o te Upoko 3.11 me te tautoko i ngā tūmahi kia tutuki ai ngā whāinga taupoto, i runga anō i te mārama me whai wāhi tonu ki ngā mahere ā-rohe ka whai ake, te whakaitinga o te ngaronga o te hauota, o te pūtūtae-whetū, o te waiparapara me te tukumate ora poto i te whenua
- whakaū kia whakahaere tonu te Kaunihera ā-rohe o Waikato i ngā rangahau, i te aroturuki me te mātai i ngā rerekētanga ā-whenua, i roto anō hoki i te wai kia āhei ai te whai i te Mātauranga Māori me ngā tikanga pūtaiao o te wā, ka puta mai ana aua tikanga
- whakarite i ngā herenga o anamata mō ngā mahi i runga i te whenua, me te āpiti atu i ngā tāpuitanga^ e whakaū ana i te hāngai pū o ngā tūmahi me te whakahaeretanga o te whakamahinga whenua ki ngā āheinga ahupūngao koiora o te whenua, ki te wāhi me ngā pānga o ngā rukenga ki ngā roto, ki ngā awa me ngā repo i roto i te riu.

Te huarahi o te mahi ngātahi

I whakaae ngā āpiti hautū ngātahi ki te whai i te huarahi o te mahi ngātahi ki te whakatewhatewha me te whakawhanake i ngā huarahi whakahaere wai Māori ka whāia i ngā riu o ngā awa o Waikato me Waipā.

Ko tētehi āhuatanga matua o te huarahi o te mahi ngātahi ko te Rōpū Mahi Ngātahi o ngā Hunga Whai Pānga, i noho mai hei kanohi mō te hunga whai pānga me te hapori whānui i te kaupapa o Wai Ora: He Rautaki Whakapaipai. Ko te Rōpū Mahi Ngātahi o ngā Hunga Whai Pānga te huarahi matua i mahi ngātahi ai te hunga whai pānga me te hapori whānui i te kaupapa. I āta arotake, i āta whiriwhiri mārire anō te rōpū i ngā rauemi whāiti nā tētehi rōpū mātanga ā-waho i ahu mai i ētehi tūmomo pekanga mātauranga. I te Panonitanga Tuatahi o te Mahere e Marohitia nei, i whai hoki te Rōpū Mahi Ngātahi o ngā Hunga Whai Pānga i ngā whakaaro o ō rātou rāngai me te hapori, ā, nā rātou ngā kōrero o te Upoko 3.11 i whakatakoto ki te hunga whakatau.

Te Whakawhiti Kōrero

Kei roto i te Rārangi Whakawhiti Kōrero 1 o te RMA ngā here kia mātua whakawhiti kōrero me ētehi hunga, pērā i ngā rūnanga ā-iwi, i te wā e whakaritea ana te Whakataurangitanga. Kua oti ngā whakawhitinga kōrero me ngā hunga e pāngia ana, tae atu ki ngā rūnanga ā-iwi e hāngai ana, ā, kua āta arohia ngā take i ara ake ai i aua whakawhitinga kōrero e te Kaunihera ā-Rohe o Waikato i te whakaritenga o Te Whakataurangitanga Tuatahi. Nā ngā whakawhitinga kōrero i hua ai Te Whakataurangitanga i te Panonitanga Tuatahi o te Mahere e Marohitia nei.

Te Kounga Wai me te Tauākī Kaupapa Here ā-Motu mō te Whakahaere Wai Māori

Kua herea ngā kaunihera ā-rohe e te Tauākī Kaupapa Here ā-Motu mō te Whakahaere Wai Māori 2016 ki te whakarite whāinga wai Māori^ me te whakatakoto tāpuitanga^, whāinga^ rānei (he tāpuitanga te whāinga me whakatutuki i roto i te

wā i tohua ai). Me mātua whakaū ngā kaunihera ā-rohe kāore e nui rawa te tohanga^ o te rawa wai, me whakatika rānei e rātou tērā tohanga mehemea kua whērā kē.

E whakaaturia mai ana i ngā hua o te aroturuki ā-kounga wai, ahakoa ngā rerekētanga i ngā wāhi katoa o ngā riu o ngā awa o Waikato me Waipā, he kino tonu ngā pānga ki ngā hōpua wai nā ngā rukenga ā-hauota, ā-pūtūtae-whetū, ā-waiparapara, ā-tukumate ora poto anō hoki. I whakatau te Rōpū Mahi Ngātahi o ngā Hunga Whai Pānga, he nui rawa te tohanga^ i te horopaki o te kounga wai. Kāore e taea e ngā hōpua wai o ngā riu o ngā awa o Waikato me Waipā te whakaputa ētehi atu rukenga ā-hauota, ā-pūtūtae-whetū, ā-waiparapara, ā-tukumate ora poto anō hoki, me te kore e puta o ngā pānga kino ki ngā uara o te hapori. Me whakaiti ngā tāhawahawatanga roha me ngā tāhawahawatanga i ngā pū tuwha e tutuki ai ngā whāinga ā-tau me ngā whāinga tauroa mō te wai Māori, o te Upoko 3.11.

Ka tohutohu te Tauākī Kaupapa Here ā-Motu mō te Whakahaere Wai Māori i te Kaunihera ā-Rohe o Waikato ki te whakarite whāinga wai Māori e whakamana ana i ngā whāinga o te Tauākī Kaupapa Here ā-Motu mō te Whakahaere Wai Māori, e whakamārama ana anō hoki i te āhua o te wai e hiahiatia ana e ngā hapori ā-rohe o Waikato hei ngā tau e heke mai ana.

Ko tētehi wāhanga o te tukanga o te Tauākī Kaupapa Here ā-Motu mō te Whakahaere Wai Māori i whāia ai hei whakarite i te Upoko 3.11, ko te tautuhi i ngā wae whakahaere wai māori me ngā uara o ia wae, kātahi ka kōwhiria ngā āhuatanga o te kounga wai^ e hāngai ana me ngā āhuatanga^ ka taea te aroturuki i roto i te wā. Mā ngā whāinga wai Māori^ me ngā tāpuitanga^, ngā whāinga^ rānei e whakatau ngā here e tutuki ai ngā āhuatanga^. Kei raro i te Tauākī Kaupapa Here ā-Motu mō te Whakahaere Wai Māori, ko te tāpuitanga^ te taumata o te whakamahinga o ngā rawa e wātea ana, kia āhei ai te whakatutukitanga o tētehi whāinga wai Māori.

I tautuhi te Rōpū Mahi Ngātahi o ngā Hunga Whai Pānga i te whakamahinga rawa ka pā ki te whakatutukitanga o ngā whāinga wai Māori^, ki ngā hiahia tauroa mō te kounga wai me te whakatutukitanga o te Ture Whaimana. E takoto ana i te Upoko 3.11 ngā kaupapa here me ngā tikanga e here ana i ngā mahi i runga i te whenua me te rukenga ki te whenua, ki te wai rānei.

Ka pā ki ngā whakatupuranga maha te whakatutukitanga o Te Ture Whaimana

Kua kōwhiri te Rōpū Mahi Ngātahi o ngā Hunga Whai Pānga i te 80 tau hei pae wā ki te whakatutuki i ngā whāinga kounga wai o Te Ture Whaimana. He pae wā tēnei ka pā ki ngā whakatupuranga maha, ā, he nui ake hoki te tūmanako i ngā pae o raro ā-motu kua whakatakotoria i te Tauākī Kaupapa Here ā-Motu mō te Whakahaere Wai Māori, nā te mea e whai ana tēnei ki te whakatutuki i ngā paerewa teitei ake kia pai ai tā te tangata kaukau ki roto i te wai, kia pai ai hoki te kohi kai i ngā wāhi katoa o ngā awa o Waikato me Waipā, mai i ngā mātāpuna ki ngā pūaha, me ngā riu. E ai ki ngā pārongo e wātea anaināianei, kua whakatau te Rōpū Mahi Ngātahi o ngā Hunga Whai Pānga ka nui te utu, ka uaua hoki te whakatutukitanga katoatanga o Te Ture Whaimana i mua i te tau 2096. Kua kitea te ‘āputa auahatanga’ i te pae wā o te 80 tau, arā e whakatutuki katoatia ai te kounga wai me whai hangarau, me whai tikanga rānei kāore anō kia hua ake, kāore anō rānei e taea, i ngā āhuatanga ā-ōhanga. Hei āpiti atu, e mōhiotia ana ināianei, e tutuki ai te whakaoranga o te kounga wai me whakarerekē te whakamahinga o ētehi whenua nui tonu, he āhua nui, he tino nui rānei te rukenga o ērā whenua kia iti ake te rukenga (hei tauira, mā te whakatupu rākau).

Kua whai te Rōpū Mahi Ngātahi o ngā Hunga Whai Pānga i tētehi huarahi wāwāhi nā te nui o ngā panonitanga me whai kia whakaorangia mai anō, kia tiakina hoki te kounga wai i te roanga o te pae wā o te 80 tau. Nā tēnei huarahi i wāhia ai ngā whakatikahanga me puta mai, ko te tuatahi o ngā whakatikahanga he whakarite, he whakatinana anō hoki i ngā tūmomo tūmahi me mahi rawa i roto i te tekau tau, e tutuki ai te tekau ōrau o ngā panonitanga, i te kounga wai ināianei ki te kounga wai tauroa hei te tau 2096. E kitea ana i tēnei huarahi wāwāhi he raru pea ka pā ki te pāpori i te nui o ngā panonitanga ā-whakamahinga whenua i roto i te wā poto, ā, he nui te mahi, he nui hoki te utu ki te hunga whakamahi rawa, ki te ahumahi, ki te Kaunihera ā-rohe o Waikato hoki ki te whakarite i te tukanga panonitanga i te wāhanga tuatahi. Me whai tukanga whakatinana hou, me whai tohungatanga, me whakatū hui whiriwhiri kaupapa hei taunaki i te wāhanga tuatahi. Mā te huarahi wāwāhi e whai wā ai kia puta mai ngā hangarau me ngā tikanga auaha e tika ana kia puta hei whakatutuki i ngā whāinga^ me ngā tāpuitanga^ i roto i ngā mahere ā-rohe ka whai ake.

Nā te nui o te panonitanga me puta rawa e tutuki ai ngā tāpuitanga^ i roto i te 80 tau, he whāinga nui tonu te whakatutuki i te wāhanga tuatahi o ngā whāinga wai Māori tauroa o tēnei Mahere. Nā konei, kāore pea e kitea i roto i te wā poto te pānga o ngā tūmahi me ngā panonitanga i runga i te whenua ki te kounga wai i roto i ngā hōpua wai. I whēnei ai, nā te roa o te wā e memeha haere ai te kukūnga o ngā tāhawahawatanga i roto i te wai, whai i muri mai i te whakaritenga o ngā mahi whakangāwari i ngā pānga, otirā nā te roa o te wā e heke ai te hauota i te oneone ki ngā wai o te whenua, tae atu ki te wai ka rere ki ngā kōawāwa. Nā konei, ka roa pea te wā kātahi ka kitea i roto i te wai te pānga o ngā tūmahi o nāianei kua whakaritea kia iti iho ai te hauota (ka rerekē te roa o te wā i ngā wāhi katoa o te riu). I runga hoki i tērā, he ‘utanga hauota’ kāore anō kia kitea i te wai e puta tonu mai ana nā te whakamahinga whenua i mua.

I runga i te huarahi e whāia ana i te Upoko 3.11 hei whakaiti i te ngaronga o ngā tāhawahawatanga i ngā pāmu kararehe, me:

- aukati i ngā kararehe i ngā hōpua wai hei tūmahi whakangāwari totoa
- whai Mahere Taiao ā-Pāmu (tae atu ki ngā kaiwhakatupu huawhenua ā-arumoni) e whakaū ana i ngā tikanga whakahaere pai ā-ahumahi, e tautuhi ana anō hoki i ētehi atu tūmahi whakangāwari hei whakaiti i ngā rukenga roha i mua i ētehi rā ka āta tohua, ka aroturukihia ai
- whakarite tauine tohu hauota ā-whenua mā te whakatauira i ngā ngaronga whakamōmona i ia whenua, kāore tētehi whenua e āhei ki te hipa i tana tohu hei ngā tau e heke mai ana, ā, me whakaiti rawa ngā kairuke kaha rawa i ngā ngaronga whakamōmona
- whakarite tētehi pūnaha whakamanatanga mō te hunga ka āwhina i ngā kaipāmu ki te whakarite i ā rātou Mahere Taiao ā-Pāmu, ki te whakapūmau anō hoki i ngā kaupapa ā-ahumahi ahuwhenua
- whakawhanake te Kaunihera ā-rohe o Waikato i ētehi huarahi kāore e herea ana ki te anga ā-ture kia āhei ai te arotake i ngā tūponotanga ngaronga tāhawahawatanga i ngā riu o ngā kautawa, ka whakatinana hoki i ngā mahi whakangāwari pānga kāore e herea ki ngā rohenga o ngā pāmu, hei tautuhi i ngā urupare, iti katoa te utu.

He nui ngā whakatau kua mana kē me ngā ture kei roto i tēnei Mahere, ka hāngai tonu ki ngā rukenga pū tuwha.

Me panoni rawa ngā kairuke i ngā pū tuwha nō ngā whakahaere ā-rohe, nō ngā ahumahi anō hoki i ā rātou rukenga kia hāngai ki Te Ture Whaimana, ki ngā whāinga hoki mō te kounga wai, ki ngā tāpuitanga^ o ngā riu kōawāwa me ngā whāinga^ kua whakaritea. Ka whēnei hei te paunga o ngā here ā-whakaaetanga o tēnei wā.

He nui ngā tūmomo whakataunga kei roto i tēnei Mahere e hāngai ana ki ngā mahinga ngahere. Ka riro tonu mā ēnei whakataunga ngā mahinga ngahere e whakahaere, engari ka tāpirihia atu ētehi atu here e pā ana ki te whakarite mahere hauhake me te whakamōhio i te Kaunihera ā-Rohe o Waikato ki ngā tūmahi hauhake.

Hei ngā tau e tū tata mai ana, ka herea te panonitanga ā-whakamahinga whenua, whēnei i te huringa o te ngahere hei pāmu kararehe, i te huringa rānei o te pāmu whakatupu kararehe hei pāmu miraka kau. Kua whakaritea kia āhua ngāwari ake ngā here mō te whakamahinga o ngā whenua Māori kāore anō kia whanake nā ngā raruraru ā-hītori me ngā raruraru ā-ture. Nā te mea kua pā ēnei raruraru ki te hononga i waenganui i te tangata whenua me ō rātou whenua tūpuna, me ngā pānga ā-ahurea, ā-ōhanga i puta i tērā, e whai ana te Upoko 3.11 ki te whakamana, ki te whakarite hoki i ēnei hononga. Mō tēnei wā ēnei here i runga i ngā panonitanga ā-whakamahinga whenua, kia whakatakotoria rā anōtia tētehi wāhanga tuarua i tētehi panonitanga ā-mahere o anamata, e herea ai ngā kairuke ki te whakaiti anō i ngā rukenga waiparapara, whakamōmona, tukumate ora poto anō hoki i ngā rukenga pū tuwha me ngā mahi i runga i te whenua. Ka aro tēnei wāhanga tuarua ki te pai o te whenua me te pānga o te whakamahinga whenua ki te kounga wai, i runga i te āhua o te whenua me te āhua o ngā wai taketake. Kei te Upoko 3.11 ngā tikanga whēnei i ngā rangahau me ngā pārongo me whakawhanake ake hei taunaki i tēnei.

Te arotake i te kokenga ki te whakatutuki i Te Ture Whaimana o Te Awa o Waikato

Ko te whāinga matua o te Upoko 3.11, he here i ngā kaiwhakamahi rawa kia tīmata rātou ki te whakaiti i ngā rukenga tāhawahawatanga, koia nei te wāhanga tuatahi e tutuki ai Te Ture Whaimana, ka whakahaerehia ētehi tūmahi i runga pāmu, ka arotakehia anō hoki ngā rukenga pū tuwha ka tata ana ki te wā e whakahoungia ai ngā whakaaetanga rawa. Mā te huarahi wāwāhi e taunga haere ai te tangata me ngā hapori, i runga i te mārama he whakaitinga atu anō ka whakaritea e ngā mahere ā-rohe ka whai ake.

Me arotake pokapoka Te Ture Whaimana kei roto i ngā Ture e toru mō ngā Awa e te Te Manatū Whakahaere i Te Awa o Waikato, ākuanei pea māna e panoni aua tuhinga kia whakaurua atu he tāpuitanga, he tikanga anō hoki.

E here ana Te Ture Penapena Rawa i ngā kaunihera ā-rohe kia tīmata tā rātou arotake i ā rātou mahere ā-rohe kia pau te tekau tau e whakahaerehia ana aua mahere. Kia oti tēnei hei ngā tau e heke mai ana, me whai i muri i te wāhanga tuatahi kei roto i te Upoko 3.11 o tēnei Mahere ētehi atu panonitanga hei whakaiti i ngā rukenga roha me ngā rukenga i ngā pū tuwha.

I te wā e whāia ana tēnei Mahere, ka mātai te Kaunihera ā-rohe o Waikato i te kokenga o ngā tūmahi e kawea ana i runga i te whenua hei whakatutuki i Te Ture Whaimana. Hei āpiti atu, ka whakamahia ngā rangahau me ngā kohinga pārongo i te arotakenga o tēnei Mahere, hei ārahi i ngā tohanga ā-whenua o ngā rukenga tāhawahawatanga hei ngā tau e heke mai ana.

3.11.3 Policies/Ngā Kaupapa Here

Policy 3: ~~Tailored approach to r~~ Reducing diffuse discharges from commercial vegetable production systems/Te Kaupapa Here 3: He huarahi ka āta whakahāngaihia hei whakaiti i ngā rukenga roha i ngā pūnaha arumoni hei whakatupu hua whenua

Provide for commercial vegetable production while reducing ~~Manage and require reductions in~~ diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens by: ~~from commercial vegetable production through a tailored, property or enterprise-specific approach where:~~

a. Enabling commercial vegetable production activities, ~~Flexibility is provided~~ including the flexibility to undertake crop rotations on changing parcels of land ~~for commercial vegetable production,~~ within sub-catchments, while ~~reducing average contaminant discharges over time~~ adopting sector-based initiatives and other mitigation measures to progressively reduce losses of nitrogen, phosphorus, sediment and microbial pathogens; ~~and~~

~~b. The maximum area in production for a property or enterprise is established and capped utilising commercial vegetable production data from the 10 years up to 2016; and~~

c. Establishes baselines for each property from the baseline period using commercial vegetable production data from each of the 5 years up to 2016 for;
   (i) the maximum area of land in commercial vegetable production; and
   (ii) the nitrogen and phosphorus surpluses (ie total applied nutrient inputs, less crop uptake) for each commercial vegetable production crop; and
   (iii) sediment control measures; ~~Establishing a Nitrogen Reference Point for each property or enterprise;~~ and

d. ~~A 10% decrease in the diffuse discharge of nitrogen and~~ Enabling commercial vegetable production that clearly demonstrates a tailored reduction in the diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens as measured against the baselines identified in b above of all contaminants through adherence to Good Farming Practice, Farm Environment Plans and relevant minimum standards; ~~is achieved across the sector through the implementation of Best or Good Management Practices;~~ and

~~e. Identified mitigation actions are set out and implemented within timeframes specified in either a Farm Environment Plan and associated resource consent, or in specific requirements established by participation in a Certified Industry Scheme.~~

~~f. Commercial vegetable production enterprises that reduce nitrogen, phosphorus, sediment and microbial pathogens are enabled; and~~

~~g. The degree of reduction in diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens is proportionate to the amount of current discharge (those discharging more are expected to make greater reductions), and the scale of water quality improvement required in the sub-catchment.~~

h. Providing for resource consents for enterprises to encompass multiple properties within a single sub-catchment, provided that:
   (i) a to d above are met; and
   (ii) There is clear accounting against contaminant baselines across the multiple properties, including on any land that is no longer used for commercial vegetable production, such that sub-catchment-wide diffuse discharges progressively decrease.[7]

~~**Policy 7: Preparing for allocation in the future/Te Kaupapa Here 7: Kia takatū ki ngā tohanga hei ngā tau e heke mai ana**~~

~~Prepare for further diffuse discharge reductions and any future property or enterprise level allocation of diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens that will be required by subsequent regional plans, by implementing the policies and methods in this chapter. To ensure this occurs, collect information and undertake research to support this, including collecting information about current discharges, developing appropriate modelling tools to estimate contaminant discharges, and researching the spatial variability of land use and contaminant losses and the effect of contaminant discharges in different parts of the catchment that will assist in defining 'land suitability'.~~

~~Any future allocation should consider the following principles:~~

~~a. Land suitability[8] which reflects the biophysical and climate properties, the risk of contaminant discharges from that land, and the sensitivity of the receiving water body, as a starting point (i.e. where the effect on the land and receiving waters will be the same, like land is treated the same for the purposes of allocation); and~~

[7] Federated Farmers PC1-10817, Federated Farmers V1PC1-176, Balle Bros PC1-11407, Charion Investment Trust PC1-7691, DoC PC1-10653, Hira Bhana PC1-4145, Hort NZ PC1-10052

~~b. Allowance for flexibility of development of tangata whenua ancestral land; and~~
~~c. Minimise social disruption and costs in the transition to the 'land suitability' approach; and~~
~~d. Future allocation decisions should take advantage of new data and knowledge.~~[9]

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

Prioritise the management of diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens ~~land and water resources by implementing Policies 2, 3 and 9, and~~[10] in accordance with the prioritisation of areas set out in Table 3.11-2, commercial vegetable production activities[11] [OPTION and dairy farming[12]]~~.~~ and the catchments of lakes.[13] ~~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.~~[14]

Policy 9: Sub-catchment (including edge of field) mitigation planning, co-ordination and funding/Te Kaupapa Here 9: Te whakarite mahi whakangāwari, mahi ngātahi me te pūtea mō te riu kōawāwa (tae atu ki ngā taitapa)

Take a prioritised and integrated approach to sub-catchment water quality management by undertaking sub-catchment planning, and use this planning to support actions including edge of field mitigation measures. Support measures that efficiently and effectively contribute to water quality improvements. This approach includes:

a. Engaging early with tangata whenua and with landowners, communities, local authorities[15] and potential funding partners in sub-catchments in line with the priority areas listed in Table 3.11-2; and
b. Assessing the reasons for current water quality and sources of contaminant discharge, at various scales in a sub-catchment; and
c. Encouraging cost-effective mitigations where they have the biggest effect on improving water quality; and
d. Allowing, where multiple farming enterprises contribute to a mitigation, for the resultant reduction in diffuse discharges to be apportioned to each enterprise in accordance with their respective contribution to the mitigation and their respective responsibility for the ongoing management of the mitigation, provided that the reduction can be confidently secured for the duration of any resource consent[16]; and~~.~~
e. Using sub-catchment monitoring information to measure progress toward the freshwater objectives across the whole of each FMU.[17]

Policy 15: Whangamarino Wetland/Te Kaupapa Here 15: Ngā Repo o Whangamarino

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[8] ~~*Future mechanisms for allocation based on land suitability will consider the following criteria:*~~
~~*a) The biophysical properties of the land that determine productive potential and susceptibility to contaminant loss (e.g. slope, soil type, drainage class, and geology); and*~~
~~*b) the local climate regime that determines productive potential and the likelihood of water storage and runoff patterns (e.g. frost, rainfall and its seasonal distribution); and*~~
~~*c) The natural capacity of the landscape to attenuate contaminant loss; and*~~
~~*d) the Objective 1 water quality limits^ related to nitrogen, phosphorus, microbial pathogens and sediment for the surface waters that the land is hydrologically connected to; and*~~
~~*e) the desired values^ in those receiving waters (ecological and human health) and how they are influenced by the four contaminants.*~~
~~*The future weightings are to be determined.*~~
~~*For the avoidance of doubt, land suitability criteria exclude current land use and current water quality, the moderating effects of potential mitigations, and non-biophysical criteria (economic, social and cultural). Instead these factors will be of importance in analysing the implications of a completed land suitability classification.*~~

[9] Jack Farms PC1-8026, H and S Brooks PC1-84, Sieling Farms PC1-5465
[10] Ravensdown PC1-10119
[11] J Reeves & A Taylor PC1-8537
[12] Fonterra PC1-10489
[13] DoC PC1-10670
[14] Fonterra PC1-10489 (consequential to option to add dairy farming)
[15] Matamata-Piako District Council PC1-3503, Waitomo District Council PC1-10323
[16] DoC PC1-10671
[17] Federated Farmers V1PC1-234

Protect and make progress towards restoration of Whangamarino Wetland by reducing the diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens in the sub-catchments that flow into the wetland to:

a. Reduce and minimise further loss of the bog ecosystem; and
b. Provide increasing availability of mahinga kai; and
c. Support implementation of any catchment plan prepared in future by Waikato Regional Council that covers Whangamarino Wetland.

Policy 17: Considering the wider context of the Vision and Strategy/Te Kaupapa Here 17: Te whakaaro ake ki te horopaki whānui o Te Ture Whaimana

When applying policies and methods in Chapter 3.11, seek opportunities to advance those matters in the Vision and Strategy and the values^ for the Waikato and Waipa Rivers that fall outside the scope of Chapter 3.11~~, but could be considered secondary benefits of methods carried out under this Chapter~~[18], including, but not limited to:

a. Opportunities to enhance biodiversity, wetland values^ and the functioning of ecosystems; and
b. Opportunities to enhance access and recreational values^ associated with the rivers.

[18] DoC PC1-10746 and Fish and Game PC1-10906

3.11.4 Implementation methods/Ngā tikanga whakatinana

3.11.4.1 Working with others/Te mahi tahi me ētehi atu

Waikato Regional Council will work with stakeholders including Waikato River iwi partners, Waikato River Authority, Waikato River Restoration Strategy partners, Department of Conservation, territorial authorities, industry and sector bodies, to implement Chapter 3.11 including all the following methods in 3.11.4. This will include coordinating priorities, funding and physical works, promoting awareness and providing education, to assist in giving effect to the *Vision and Strategy for the Waikato River/Te Ture Whaimana o Te Awa o Waikato* for the Waikato and Waipa Rivers.

3.11.4.2 Certified Industry Scheme/Te kaupapa ā-ahumahi kua whai tohu

Waikato Regional Council will develop an industry certification process for industry bodies as per the standards outlined in Schedule 2. The **Certified Industry Scheme** will include formal agreements between parties. Agreements will include:

a. Provision for management of the **Certified Industry Schemes**;
b. Oversight, and monitoring of **Farm Environment Plans**;
c. Information sharing;
d. Aggregate reporting on **Certified Industry Scheme** implementation; and
e. Consistency across the various **Certified Industry Schemes**

3.11.4.3 Farm Environment Plan/Ngā Mahere Taiao ā-Pāmu

Waikato Regional Council will prepare parameters and minimum requirements for the development of a certification process for professionals to develop, certify and monitor **Farm Environment Plans** in a consistent approach across the region. A **Farm Environment Plan** will be prepared by a certified person as per the requirements outlined in Schedule 1, and will assess the risk of **diffuse discharges** of nitrogen, phosphorus, sediment and **microbial pathogens** and specify actions to reduce those risks in order to bring about reductions in the discharges of those contaminants. Waikato Regional Council will develop guidance for risk assessments, auditing and compiling **Farm Environment Plans**.

Waikato Regional Council will take a risk based approach to monitoring **Farm Environment Plans**, starting with more frequent monitoring and then moving to monitoring based on risk assessment. Robust third party audit (independent of the farmer and **Certified Farm Environment Planner**) and monitoring will be required.

3.11.4.4 Lakes and Whangamarino Wetland/Ngā Roto me ngā Repo o Wangamarino

Waikato Regional Council, working with others, will:

a. Build on the Shallow Lakes Management Plan by developing Lake Catchment Plans and investigate lake-specific options to improve water quality and ecosystem health, and manage pest species. In many instances, this may require an adaptive management approach.
b. Prepare and implement Lake Catchment Plans with community involvement which include:
    i. A vision for the lake developed in consultation with the community.
    ii. Description of the desired state of lake and recognition of the challenges (e.g. costs) and opportunities (e.g. benefits) in achieving it.
    iii. An evidence based description of the problem (i.e. what is the gap between the current state and desired state) that recognises the presence of multiple stressors and uncertainty in responses and time frames.
    iv. Community engagement in defining actions that will move the lake towards its desired state.
    v. Responsibility for achieving the agreed actions and expected timeframes, developed in consultation with those who will be undertaking the work.
    vi. A monitoring regime that will provide evidence of the implementation of the defined actions and any changes in the state of the lake.
c. As a priority, undertake the development and implementation of the Lake Waikare and Whangamarino Wetland Catchment Management Plan using the process set out in b).
d. Work towards managing the presence of pest weeds and fish in the shallow lakes and connected lowland rivers area, including Whangamarino Wetland.
e. Support research and testing of restoration tools and options to maintain and enhance the health of shallow lakes and Whangamarino Wetland (e.g. lake modelling, lake bed sediment treatments, constructed wetlands, floating wetlands, silt traps, pest fish management, and farm system management tools).
f. Support lake and Whangamarino Wetland restoration programmes including, but not limited to, advice, funding, and project management. Restoration programmes may have a wider scope than water quality, including hydrological restoration, revegetation and biodiversity restoration.
g. Develop a set of 10-year water quality attribute^ targets^ for each lake Freshwater Management Unit^.

3.11.4.5 Sub-catchment scale planning/Te whakamāherehere mō te whānuitanga o ngā riu kōawaawa

Waikato Regional Council will work with others to develop **sub-catchment** scale plans (where a catchment plan does not already exist) where it has been shown to be required. **Sub-catchment** scale planning will:

a. Identify the causes of current water quality decline, identify cost-effective measures to bring about reductions in contaminant discharges, and coordinate the reductions required at a **property**, **enterprise** and **sub-catchment** scale (including recommendations for funding where there is a public benefit identified).
b. Align works and services to reduce nitrogen, phosphorus, sediment and **microbial pathogen** discharges including riparian management, targeted reforestation, constructed wetlands, sediment traps and sediment detention bunds.
c. Assess and determine effective and efficient placement of constructed wetlands at a **sub-catchment** scale to improve water quality.
d. Support research that addresses the management of wetlands, including development of techniques to monitor ecological change and forecasting evolution of wetland characteristics resulting from existing land use in the wetland catchments.
e. Integrate the regulatory requirements to fence waterways with the requirements for effective drainage scheme management.
f. Coordinate funding of mitigation work by those contributing to water quality degradation, in proportion to that contribution.
g. Utilise public funds to support **edge of field mitigations** where those mitigations provide significant public benefit.

3.11.4.6 Funding and implementation/Te pūtea me te whakatinanatanga

Waikato Regional Council will:

a. Provide staff resources and leadership within the organisation for the implementation of Chapter 3.11.
b. Seek to secure funding for the implementation of Chapter 3.11 through the annual plan and long term plan processes.

3.11.4.7 Information needs to support any future allocation/Ngā pārongo e hiahiatia ana hei taunaki i ngā tohanga o anamata

Gather information and commission appropriate scientific research to inform any future framework for the allocation of diffuse discharges including:

a. Implementing processes that will support the setting of property or enterprise level diffuse discharge limits in the future.
b. Researching:
    i. The quantum of contaminants that can be discharged at a sub-catchment and Freshwater Management Unit^ scale while meeting the Table 3.11-1 water quality attribute^ targets^.
    ii. Methods to categorise and define 'land suitability'.
    iii. Tools for measuring or modelling discharges from individual properties, enterprises and sub-catchments, and how this can be related to the Table 3.11-1 water quality attribute^ targets^.

3.11.4.8 Reviewing Chapter 3.11 and developing an allocation framework for the next Regional Plan/Te arotake i te Upoko 3.11, te whakarite hoki i tētehi anga toha mō te Mahere ā-Rohe e whai ake ana

Waikato Regional Council will:

a. Develop discharge allocation frameworks for individual **properties** and **enterprises** based on information collected under Method 3.11.4.7, taking into account the best available data, knowledge and technology at the time; and
b. Use this to inform future changes to the Waikato Regional Plan to manage discharges of nitrogen, phosphorus, sediment and **microbial pathogens** at a **property** or **enterprise** level to meet the targets^ in the Objectives.

3.11.4.9 Managing the effects of uban development/Te whakahaere i ngā pānga o te whanaketanga ā-tāone

Waikato Regional Council will:

a. Continue to work with territorial authorities to implement the Waikato Regional Policy Statement set of principles that guide future development of the built environment which anticipates and addresses cumulative effects over the long term.
b. When undertaking sub-catchment scale planning under Method 3.11.4.5 in urban sub-catchments engage with urban communities to raise awareness of water quality issues, and to identify and implement effective solutions for the urban context.

3.11.4.10 Accounting system and monitoring/Te pūnaha kaute me te aroturuki

Waikato Regional Council will establish and operate a publicly available accounting system and monitoring in each Freshwater Management Unit^, including:

a. Collecting information on nitrogen, phosphorus, sediment and **microbial pathogen** levels in the respective fresh water bodies in each Freshwater Management Unit^ from:
   i. Council's existing river monitoring network; and
   ii. **Sub-catchments** that are currently unrepresented in the existing monitoring network; and
   iii. Lake Freshwater Management Units^.
b. Using the information collected to establish the baseline data for compiling a monitoring plan and to assess progress towards achieving the Table 11-1 water quality attribute^ targets^; and
c. Using state of the environment monitoring data including biological monitoring tools such as the Macroinvertebrate Community Index to provide the basis for identifying and reporting on long term trends; and
d. An information and accounting system for the **diffuse discharges** from **properties** and **enterprises** that supports the management of nitrogen, phosphorus, sediment and **microbial pathogens diffuse discharges** at an **enterprise** or **property** scale.

3.11.4.11 Monitoring and evaluation of the implementation of Chapter 3.11/Te aroturuki me te arotake i te whakatinanatanga o te Upoko 3.11

Waikato Regional Council will:

a. Review and report on the progress towards and achievement of the 80-year water quality objectives of Chapter 3.11.
b. Research and identify methods to measure actions at a **sub-catchment, property** and **enterprise** level, and their contribution to reductions in the discharge of contaminants.
c. Monitor the achievement of the values^ for the Waikato and Waipa Rivers and the uses made of those rivers.
d. Collate data on the number of land use resource consents issued under the rules of this chapter, the number of **Farm Environment Plans** completed, compliance with the actions listed in **Farm Environment Plans**, **Nitrogen Reference Points** for **properties** and **enterprises**, and nitrogen discharge data reported under **Farm Environment Plans**.
e. Work with industry to collate information on the functioning and success of any **Certified Industry Scheme**.

3.11.4.12 Support research and dissemination of best practice guidelines to reduce diffuse discharges/Te taunaki i te rangahautanga me te tuaritanga o ngā aratohu mō ngā mahi tino whai take hei whakaiti i ngā rukenga roha

Waikato Regional Council will:

a. Develop and disseminate **best management practice** guidelines for reducing the **diffuse discharges** of nitrogen, phosphorus, sediment and **microbial pathogens**; and
b. Support research into methods for reducing **diffuse discharges** of contaminants to water.[19]

[19] Fish and Game PC1-10910, J and A Gaston PC1-1083

3.11.5 Rules/Ngā Ture

Delete all references to "enterprise" from the rules.[20]

Insert Commercial Vegetable Production into the change of use of land conditions of Rules 3.11.5.1A, 3.11.5.2A (if included), 3.11.5.3 (if included), and 3.11.5.4, such that it reads:

X. 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 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 Commerical Vegetable Production[21]

Insert No commercial vegetable production occurs as a condition of Rule 3.11.5.4.

3.11.5.5 ~~Controlled~~ Restricted Discretionary Activity Rule – Existing commercial vegetable production/Te Ture mō ngā Mahi ka āta Whakahaerehia – Te whakatupu hua whenua ā-arumoni o te wā nei

Rule 3.11.5.5 - ~~Controlled~~ Restricted Discretionary Activity Rule – Existing commercial vegetable production

The use of land for 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~~, is a ~~permitted activity until 1 January 2020, from which date it shall be a controlled~~ restricted discretionary activity ~~(requiring resource consent)~~ subject to the following conditions ~~standards and terms~~:

a. The property is registered with the Waikato Regional Council in conformance with Schedule A; and
~~b. A Nitrogen Reference Point is produced for the property or enterprise in conformance with Schedule B and provided to the Waikato Regional Council at the time the resource consent application is lodged; and~~
c. Cattle, horses, deer and pigs are excluded from water bodies in conformance with Schedule C; and
~~d. The land use is registered to a Certified Industry Scheme; and~~
e. The following information, relating to the land used by the applicant for commercial vegetable production each year in the period 1 July 2011 to 30 June 2016, is provided to the Council:
   i. The total, maximum area (hectares) of land used for commercial vegetable production; and
   ii. The maximum areas (hectares) of land and their locations, per sub-catchment [refer to Table 3.11-2]; and
   iii. quantification of nitrogen and phosphorus surpluses for each commercial vegetable production crop and a description of sediment control measures; and

   ~~The areas of land, and their locations broken down by sub-catchments [refer to Table 3.11-2], that were used for commercial vegetable production within the property or enterprise each year in the period 1 July 2006 to 30 June 2016, together with the maximum area of land used for commercial vegetable production within that period, shall be provided to the Council; and~~
f. The total area of land for which consent is sought for commercial vegetable production must not exceed the maximum land area of the property or properties ~~enterprise~~ that was used for commercial vegetable production during the period 1 July ~~2006~~ 2011 to 30 June 2016; and
~~g. Where new land is proposed to be used for commercial vegetable production, an equivalent area of land must be removed from commercial vegetable production in order to comply with standard and term f.; and~~
h. A Farm Environment Plan for the property or enterprise prepared in conformance with Schedule 1 and approved by a Certified Farm Environment Planner is provided to the Waikato Regional Council at the time the resource consent application is lodged that, at a minimum, shows:
   i. Good Farming Practice;
   ii. Adherence to any relevant minimum standards; and
   iii. That losses of nitrogen, phosphorus and sediment that do not exceed the maximum annual losses that were occurring during the 5 years up to 2016; and
i. 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 Waikato Regional Council[22]

Waikato Regional Council restricts its discretion to the following matters: ~~Matters of Control~~
~~Waikato Regional Council reserves control over the following matters:~~

[20] P Brodie PC1-2889, Waitomo DC PC1-10312, G Kilgour PC1-1884
[21] Fonterra V1PC1-757, Waipa DC PC1-3249, Waitomo DC PC1-10312
[22] WRC V1PC1-218

i. The content, compliance with and auditing of the Farm Environment Plan.
ii. The maximum total and per-sub-catchment area of land to be used for commercial vegetable production.
iii. The actions and timeframes to achieve Good Farming Practices or better and any relevant minimum standards to avoid exceeding baseline losses. ~~for undertaking mitigation actions that maintain or reduce the diffuse discharge of nitrogen, phosphorus or sediment to water or to land where those contaminants may enter water, including provisions to manage the effects of land being retired from commercial vegetable production and provisions to achieve Policy 3(d).~~
~~iv. The actions and timeframes to ensure that the diffuse discharge of nitrogen does not increase beyond the Nitrogen Reference Point for the property or enterprise.~~
v. The term of the resource consent.
vi. The monitoring, record keeping, reporting, contaminant accounting and information provision requirements for the holder of the resource consent to demonstrate and/or monitor compliance with any resource consent and the Farm Environment Plan.
vii. The time frame and circumstances under which the consent conditions may be reviewed.
viii. Procedures for reviewing, amending and re-certifying the Farm Environment Plan.
ix. The procedures and limitations, including Nitrogen Reference Points, to be applied to land that leaves the commercial vegetable growing activities.

Notification:

Consent applications will be considered without notification, and without the need to obtain written approval of affected persons.

~~**Advisory note:** Under section 20A(2) of the RMA a consent must be applied for within 6 months of 1 January 2020, namely by 1 July 2020.~~[23]

[23] J L and R J Ashby V1PC1-866, Balle Bros Group PC1-11426, G and J Jeffries PC1-7240, K McLauglin PC1-6018, Moerangi Trust PC1-4279, PLUG PC1-11178

Schedule B - Nitrogen Reference Point/Te Āpitihanga B – Te tohu ā-hauota

A property ~~or enterprise~~ with a cumulative area greater than 20 hectares (or any property or enterprise used for commercial vegetable production) must have a Nitrogen Reference Point calculated as follows:

a. The Nitrogen Reference Point must be calculated by a Certified Farm Nutrient Advisor ~~to determine~~by modelling the amount of nitrogen being leached from the property or enterprise during the relevant reference period specified in clause f), except for any land use ~~change~~ approved under Rules 3.11.5.6 or 3.11.5.7 where the Nitrogen Reference Point shall be determined through the Rule 3.11.5.6 or 3.11.5.7 consent process.

b. The Nitrogen Reference Point shall be the highest modelled annual nitrogen leaching loss that occurred during a single year (being 12 consecutive months) within the reference period specified in clause f), except for commercial vegetable production in which case the Nitrogen Reference Point shall be the average annual nitrogen leaching loss during the reference period.

c. The Nitrogen Reference Point must be calculated using the ~~current~~ most recent version of the OVERSEER® Model as the default model (~~or any~~ other models may be approved for use by the Chief Executive of the Waikato Regional Council, if justified on a case by case basis). The Nitrogen Reference Point must be updated using the initial reference data whenever a new version of the OVERSEER® Model, or any other approved model used to prepare the Nitrogen Reference Point, is released.

d. The Nitrogen Reference Point data shall comprise the data used by ~~electronic output file from~~ the OVERSEER® or other approved model to calculate the Nitrogen Reference Point, and where the OVERSEER® Model is used, it must be calculated using the OVERSEER® Best Practice Data Input Standards ~~2016~~ or replacement technical guidance that relate to the version of the OVERSEER® model being used, with the exceptions and inclusions set out in ~~Schedule B Table 1~~ a Waikato Regional Council Nitrogen Reference Point Guide. Where another approved model is used, it will conform to the data input standards as approved by the Chief Executive of the Waikato Regional Council.

e. The Nitrogen Reference Point Analysis (inputs and outputs) ~~and the Nitrogen Reference Point data~~ must be ~~provided~~ published to Waikato Regional Council within the period ~~1 September 2018~~ 1 May 2020 to ~~31 March 2019~~ 30 November 2020.

f. The Nitrogen Reference Period ~~reference period~~ is ~~the two financial years covering~~ 1 July 2014~~/2015 and 2015/~~ to 30 June 2016, except for commercial vegetable production in which case the reference period is 1 July ~~2006~~ 2011 to 30 June 2016.

g. The following records (where relevant to the ~~land use undertaken on the property or enterprise~~ calculation and compliance auditing of the Nitrogen Reference Point) must be retained for the life of the plan and/or relevant consent, whichever is longer, and provided to Waikato Regional Council at its request:

   i. ~~Stock numbers as recorded in annual accounts together with stock sale and purchase invoices~~Records of stock numbers and stock classes, births and deaths, stock movements on and off the property, grazing records and transport records;
   ii. ~~Dairy production data~~Total annual milk solids as stated in the milk supply statement;
   iii. ~~Invoices for fertiliser applied to the land~~Records of fertiliser type and amount, including annual accounts, and any records of fertiliser application rates and placement;
   iv. Quantity and type of ~~Invoices for~~ feed supplements ~~sold or~~ purchased and used on the property;
   v. Water use records for irrigation (to be averaged over 3 years or longer) in order to determine irrigation application rates (mm/ha/month per irrigated block) and areas irrigated;
   vi. Crops grown on the ~~land~~ property (area and yield), quantities of each crop consumed on the property, and quantities sold off farm; and
   vii. Horticulture crop diaries and NZGAP records; and
   viii. The Nitrogen Reference Point Data as defined in Schedule B clause d; and
   ix. Soil test data – including anion storage capacity; and
   x. A map which shows property boundaries, block management areas, retired/non-productive areas and areas used for effluent irrigation.

Advice note: For the avoidance of doubt, financial information contained within the above records may be redacted (blacked out) prior to it being provided to Waikato Regional Council.

~~Table 1: Data input methodology for ensuring consistency of Nitrogen Reference Point data using the OVERSEER®Model~~[24]

~~OVERSEER®Parameter~~	~~Setting that must be used~~	~~Explanatory note~~
~~Farm model~~ ~~Pastoral and horticulture~~	~~To cover the entire enterprise including riparian, retired, forestry, and yards and races.~~ ~~The model is to include non-contiguous properties that are part of the enterprise that are in the same~~	~~To capture the "whole farm" in one Overseer® file, where possible, to truly represent nitrogen losses from farm in the catchment area.~~

[24] Ballance PC1-6570, FANZ PC1-10642, Beef and Lamb PC1-11506, Fonterra PC1-10517

	~~sub-catchment.~~ ~~If the farm (for example where dairy animals are grazed or wintered) is part of another farming business such as a drystock farm, the losses from those animals will be represented in the drystock farm's Overseer model.~~	
~~Location~~ ~~Pastoral and horticulture~~	~~Select Waikato Region~~	~~This setting has an effect on climate settings and some animal characteristics and is required to ensure consistency.~~
~~Animal distribution – relative productivity pastoral only~~	~~Use "no differences between blocks" with the following exceptions:~~ ~~• Grazed pines or other woody vegetation. In this case use "Relative yield" and set the grazed pine blocks to 0.4 (40%).~~ ~~• Where the farm has a mixture of irrigated and non-irrigated areas. In this case use "Relative yield" and set the irrigated area to 1 (100%), and the non-irrigated areas to 0.75 (75%).~~	
~~Wetlands~~	~~Entered as Riparian Blocks~~	~~As per the 2016 OVERSEER® Best Practice Data Input Standards.~~
~~Stock number entry~~	~~Based on specific stock numbers only~~	~~To ensure consistency and accuracy of stock number inputs.~~
~~Animal weights~~	~~Only use OVERSEER® defaults – do not enter in weights and use the age at start setting where available (national averages).~~	~~Accurate animal weights are difficult to obtain and prove.~~
~~Block climate data~~	~~Only use the Climate Station tool~~ ~~For contiguous blocks use the coordinates from the location of the dairy shed or the middle of the farm area (for non-dairy).~~ ~~For non-contiguous blocks use individual blocks' climate station coordinates.~~	
~~Soil description~~	~~Use Soil Order – obtained from S-Map or where S-Map is unavailable from LRI 1:50,000 data or a soil map of the farm.~~	~~To ensure consistency between areas of the region that have S-Map data and those that don't.~~
~~Missing data~~	~~In the absence of Nitrogen Referencing information being provided the Waikato Regional Council will use appropriate default numbers for any necessary inputs to the OVERSEER® model (such default numbers will generally be around 75% of normal Freshwater Management Unit^ average values for those inputs).~~	~~Some farms will not be able to supply data, therefore a default must be established.~~

Schedule C - Stock exclusion/Te Āpitihanga C – Te aukatinga o ngā kararehe

Except as provided by Exclusions I. ~~and II.~~ and III, cattle, horses, deer and pigs ~~stock~~[25] must be excluded from the water bodies listed in 6. ~~i. to iv.~~ below as follows:

1. The water bodies on land with a slope of up to X degrees[26] must be fenced to exclude cattle, horses, deer and pigs, unless those animals are prevented from entering the bed of the water body by a stock proof natural or constructed[27] barrier formed by topography or vegetation.

   Advice note: Clause 1 does not authorise the construction of fences or other barriers in the bed of a river or lake, or in a wetland.

2. New temporary, permanent or virtual[28] fences installed after 22 October 2016 must be located to ensure cattle, horses, deer and pigs will be excluded from the bed of the water body. The fences must be located at a distance of not less than ~~cannot be within one metre of the water body (excluding constructed wetlands).~~
   a. 1 metre from the outer edge of the bed for land with a slope of less than 15 degrees; and
   b. 3 metres from the outer edge of the bed for land with a slope between 15 and 25 degrees; and
   c. 10 metres from the outer edge of the bed for artificial or modified watercourses that are the full responsibility of a territorial authority or Waikato Regional Council for maintenance purposes.[29]
3. ~~Livestock~~ Cattle, horses, deer and pigs[30] must not ~~be permitted to~~[31] enter onto or pass across the bed of the water body, except when using a livestock crossing structure [OPTION TO ADD or when they are being supervised and actively driven across a water body in one continuous movement provided no more than one crossing per week occurs].

   Advice note: Clause 3 does not authorise the construction of stock crossing structures in the bed of a river or lake, or in a wetland.[32]

4. For land use authorised under Rules 3.11.5.1 or 3.11.5.2, clauses 1 and 2 must be complied with:
   a. By 1 July 2023 for properties ~~and enterprises~~ within Priority 1 sub-catchments listed in Table 3.11-2.
   b. By 1 July 2026 for properties ~~and enterprises~~ within Priority 2 and Priority 3 sub-catchments listed in Table 3.11-2.
5. For land use authorised under Rules [3.11.5.3,] 3.11.5.4 or 3.11.5.5, clauses 1 and 2 must be complied with by the date and in the manner specified in the property's ~~or enterprise's~~ Farm Environment Plan, which shall be 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.
6. Water bodies from which cattle, horses, deer and pigs must be excluded:
   a. The bed of a river (including any stream and modified river or stream) or artificial watercourse that is permanently or intermittently flowing [OPTION TO ADD and where the bed is predominantly unvegetated and comprises exposed fine sediment, sand, gravel, boulders or similar material or aquatic vegetation]; and
   b. The bed of any lake; and
   c. Any wetland, including a constructed wetland.
   ~~i. Any river that continually contains surface water.~~
   ~~ii. Any drain that continually contains surface water.~~
   ~~iii. Any wetland, including a constructed wetland.~~
   ~~iv. Any lake.~~[33]

Exclusions:

The following situations are excluded from clauses 1, 2 and ~~2~~3:

I. Where the entry onto or passing across the bed of the water body is by horses that are being ridden or led.

~~II. Where the entry onto or passing across the bed of the water body is by a feral animal.~~[34]

III. Constructed ponds or constructed wetlands in which deer or pigs wallow that are located at least 10m away from the bed of a water body and which are not connected by an overland flow path to a water body.

[25] Dairy Goat Co-Operative (N.Z) Ltd PC1-4135
[26] Beef and Lamb PC1-11507
[27] Fish and Game PC1-11022
[28] Ashby, J L and R J V1PC1-879, Beef and Lamb V1PC1-1724
[29] Cl. 16 to ensure consistency with Rule 4.2.18.1 of the WRP
[30] Dairy Goat Co-Operative (N.Z) Ltd PC1-4135, A and S Dudin PC1-4910, A and M Goddard PC1-2341
[31] Fonterra V1PC1-757, Waipa DC PC1-3249, Waitomo DC PC1-10312
[32] Beef and Lamb PC1-11507
[33] DoC PC1-11055
[34] G Kilgour PC1-1923, A McGovern PC1-8327, Waipapa Farms Ltd and Carlyle Holdings Ltd PC1-4716

Schedule 1 - Requirements for Farm Environment Plans/Te Āpitihanga 1: Ngā Herenga i ngā Mahere Taiao ā-Pāmu

The Farm Environment Plan (FEP) will be prepared in accordance with Parts A, and B below, reviewed in accordance with Part C, and changed in accordance with Part D.

PART A – PROVISION OF FEP

An FEP must be submitted to Waikato Regional Council (the council) using either:

1. A council digital FEP tool including the matters set out in Part B below to the extent relevant; OR
2. An industry prepared FEP that:
   a) includes the following minimum components:
      i. the matters set out in Parts B below to the extent relevant; and
      ii. performance measures that are capable of being reviewed as set out in Part C below
   b) has been approved by the Chief Executive of Waikato Regional Council as meeting the criteria in (a) and capable of providing FEPs in a digital format, consistent with the council data exchange specifications.

The Waikato Regional Council data exchange specifications will set out the standards and detail of the data exchange process to be used by external industry parties in the provision of FEPs.

PART B – FEP CONTENT

The FEP shall contain as a minimum:

1. The property or enterprise details:
   a) Full name, address and contact details (including email addresses and telephone numbers) of the person responsible for the land use activities;
   b) Legal description of the land and any relevant farm identifiers such as dairy supply number.

2. A map(s) at a scale that clearly shows:
   a) The boundaries of the property or land areas being farmed;
   b) The boundaries of the main land management units or land uses on the property or within the farm enterprise;
   c) The location of any Schedule C waterbodies;
   d) The location of riparian vegetation and fences adjacent to water bodies;
   e) The location on any waterways where stock have access or there are stock crossings;
   f) The location of any critical source areas and hotspots for contaminant loss to groundwater or surface water; and
   g) The location(s) of any required actions to support the achievement of the objectives and principles listed in section 3.

3. An assessment of whether farming practices are consistent with each of the following objectives and principles; and
   a. a description of those farming practices that will continue to be undertaken in a manner consistent with the objectives and principles;
   b. A description of those farming practices that are not consistent with the objectives or principles, and a description of the time bound actions or practices that will be adopted to ensure the objectives or principles are met.

3a – Management area: Whole farm

Objective 1
To manage farming activities according to good farming practice, and in a way that minimises the loss of contaminants from the farm.
Principles

1. Identify the characteristics of the farm system, the risks that the farm system poses to water quality, and the good farming practices that minimise the losses of sediment, microbial pathogens, phosphorus and nitrogen.
2. Maintain accurate and auditable records of annual farm inputs, outputs and management practices.
3. Manage farming operations to minimise losses of sediment, microbial pathogens, phosphorus and nitrogen to water, and maintain or enhance soil structure.

3b – Management Area: Nutrient management

Objective 2
To minimise nutrient losses to water while maximising nutrient use efficiency.
Principles

4. Monitor soil phosphorus levels and maintain them at or below the agronomic optimum for the farm system.

5. Manage the amount and timing of fertiliser inputs, taking account of all sources of nitrogen and phosphorus, to match plant requirements and minimise risk of losses.
6. Store and load fertiliser to minimise risk of spillage, leaching and loss into waterbodies.
7. Ensure equipment for spreading fertilisers is well maintained and calibrated.
8. Store, transport and distribute feed to minimise wastage, leachate and soil damage.

Objective 3
To farm in accordance with the nitrogen management requirements of PC1
Principle
Either, where the property's NRP is ≤75th percentile:

9. Farm in a manner that does not result in farm nitrogen losses exceeding the farm's NRP;

Or, *where the property's NRP is > than the 75th percentile*

9. Farm in a manner that does not result in farm nitrogen losses exceeding the 75th%ile for the FMU; or

3c – Management Area: Waterways

Objective 4
To minimise losses of sediment, microbial pathogens, phosphorus and nitrogen to waterways.
Principles

10. Identify risk of overland flow of phosphorus, sediment and microbial pathogens on the property and implement measures to minimise losses of these to waterbodies.
11. Locate and manage farm tracks, gateways, water troughs, self-feeding areas, stock camps, wallows and other sources of run-off to minimise risks to water quality.

Objective 5
To exclude stock from waterbodies and minimise stock damage to the beds and margins of wetlands and riparian areas.
Principle

12. Exclude stock from waterbodies to the extent that it is compatible with land form, stock class and stock intensity. Where exclusion is not possible, mitigate impacts on waterways.
13. Exclude stock in a manner consistent with the requirements of schedule C.

3d – Management Area: Land and soil

Objective 6
To minimise contaminant losses to waterways from soil disturbance and erosion.
Principles

14. Manage periods of exposed soil between crops/pasture to reduce risk of erosion, overland flow and leaching.
15. Manage or retire erosion-prone land to minimise soil losses through appropriate measures and practices.
16. Select appropriate paddocks for growing crops and intensive grazing, recognising and mitigating possible nitrogen and phosphorus, faecal, and sediment loss from critical source areas.
17. Manage grazing and crops to minimise losses from critical source areas.

3e – Management Area: Effluent

Objective 7
To minimise contaminant losses to waterways from farm animal effluent.
Principles

18. Ensure the effluent system meets industry-specific Code of Practice or equivalent standard.
19. Have sufficient storage available for farm effluent and wastewater and actively manage effluent storage levels.
20. Ensure equipment for spreading effluent and other organic manures is well maintained and calibrated.
21. Apply effluent to pasture and crops at depths, rates and times to match plant requirements and soil water holding capacity.

3f – Management Area: Water and irrigation

Objective 8
To operate irrigation systems efficiently and ensuring that the actual use of water is monitored and is efficient.
Principles

22. Manage the amount and timing of irrigation inputs to meet plant demands and minimise risk of leaching and run off.
23. Design, check and operate irrigation systems to minimise the amount of water needed to meet production objectives.

4. The FEP shall include for each objective and principle in section 3 above:
   a) Detail and content that reflects the scale of environmental risk posed by the activity;
   b) A defined and auditable description of the actions and practices to be undertaken to farm in accordance with the objectives and principles in Part B;
   c) The records and evidence that must be kept that demonstrate performance and the achievement of an objective or principle listed in Part B.

PART C – FEP REVIEW REQUIREMENTS

The FEP shall be reviewed by a Certified Farm Environment Planner for consistency with this schedule:
1. Prior to lodging a landuse consent application with the Council under rule 3.11.5.3 – 3.11.5.5 of PC1; and
2. Within 12 months of the granting of that consent application; and
3. In accordance with the review intervals set out in the conditions of that resource consent.

The purpose of the review is to provide an expert opinion whether the farming activities on the property are being undertaken in a manner consistent with the objectives and principles set out in Part B of this schedule.
The review shall be undertaken by a Certified Farm Environment Planner who holds a reviewing endorsement (issued by WRC), and must be undertaken in accordance with the review process set out the Waikato Regional Councils FEP Independent Review manual.

The review shall be undertaken by re-assessing the FEP in accordance with the requirements set out in this schedule.
The results of the review shall be provided to the Waikato Regional Council, within 20 working days of the review due date.

PART D – FEP CHANGES

Unless otherwise required by the Waikato Regional Council in accordance with any conditions of the resource consent, changes can be made to the FEP without triggering the need for review by a CFEP, provided:
1. The farming activity remains consistent with Part B of this schedule
2. The change to the FEP does not contravene any mandatory requirement of the resource consent, or any requirement of the Regional Plan that is not already authorised.
3. The nature of the change is documented in writing and made available to any CFEP undertaking a review, or to the Waikato Regional Council, on request.

~~A Farm Environment Plan shall be prepared in accordance with the requirements of A below. The Farm Environment Plan shall be certified as meeting the requirements of A by a Certified Farm Environment Planner.~~

~~The Farm Environment Plan shall identify all sources of sediment, nitrogen, phosphorus and microbial pathogens, and identify actions, and timeframes for those actions to be completed, in order to reduce the diffuse discharges of these contaminants.~~

~~The Farm Environment Plan must clearly identify how specified minimum standards will be complied with.~~

~~The requirements set out in A apply to all Farm Environment Plans, including those prepared within a Certified Industry Scheme.~~

~~This schedule applies to all farming activities, but it is acknowledged that some provisions will not be relevant to every farming activity.~~

~~A. Farm Environment Plans shall contain as a minimum:~~

~~1. The property or enterprise details:~~

~~(a) Full name, address and contact details (including email addresses and telephone numbers) of the person responsible for the property or enterprise.~~

~~(b) Trading name (if applicable, where the owner is a company or other entity).~~

~~(c) A list of land parcels which constitute the property or enterprise:~~

(i) the physical address and ownership of each parcel of land (if different from the person responsible for the property or enterprise) and any relevant farm identifiers such as the dairy supply number, Agribase identification number, valuation reference; and
(ii) The legal description of each parcel of land.

2. An assessment of the risk of diffuse discharge of sediment, nitrogen, phosphorus and microbial pathogens associated with the farming activities on the property, and the priority of those identified risks, having regard to sub-catchment targets in Table 3.11-1 and the priority of lakes within the sub-catchment. As a minimum, the risk assessment shall include (where relevant to the particular land use):

(a) A description of where and how stock shall be excluded from water bodies for stock exclusion including:

(i) the provision of fencing and livestock crossing structures to achieve compliance with Schedule C; and
(ii) for areas with a slope exceeding 25o and where stream fencing is impracticable, the provision of alternative mitigation measures.

(b) A description of setbacks and riparian management, including:

(i) The management of water body margins including how damage to the bed and margins of water bodies, and the direct input of contaminants will be avoided, and how riparian margin settling and filtering will be provided for; and
(ii) Where practicable the provision of minimum grazing setbacks from water bodies for stock exclusion of 1 metre for land with a slope of less than 15° and 3 metres for land with a slope between 15° and 25°; and
(iii) The provision of minimum cultivation setbacks of 5 metres.

(c) A description of the critical source areas from which sediment, nitrogen, phosphorus and microbial pathogens are lost, including:

(i) the identification of intermittent waterways, overland flow paths and areas prone to flooding and ponding, and an assessment of opportunities to minimise losses from these areas through appropriate stocking policy, stock exclusion and/or measures to detain floodwaters and settle out or otherwise remove sediment, nitrogen, phosphorus and microbial pathogens (e.g. detention bunds, sediment traps, natural and constructed wetlands); and

(ii) the identification of actively eroding areas, erosion prone areas, and areas of bare soil and appropriate measures for erosion and sediment control and re-vegetation; and

(iii) an assessment of the risk of diffuse discharge of sediment, nitrogen, phosphorus and microbial pathogens from tracks and races and livestock crossing structures to waterways, and the identification of appropriate measures to minimise these discharges (e.g. cut-off drains, and shaping); and

(iv) the identification of areas where effluent accumulates including yards, races, livestock crossing structures, underpasses, stock camps, and feed-out areas, and appropriate measures to minimise the risk of diffuse discharges of contaminants from these areas to groundwater or surface water; and

(v) the identification of other 'hotspots' such as fertiliser, silage, compost, or effluent storage facilities, wash-water facilities, offal or refuse disposal pits, and feeding or stock holding areas, and the appropriate measures to minimise the risk of diffuse discharges of contaminants from these areas to groundwater or surface water.

(d) An assessment of appropriate land use and grazing management for specific areas on the farm in order to maintain and improve the physical and biological condition of soils and minimise the diffuse discharge of sediment, nitrogen, phosphorus and microbial pathogens to water bodies, including:

(i) matching land use to land capability; and

(ii) identifying areas not suitable for grazing; and

(iii) stocking policy to maintain soil condition and pasture cover; and

(iv) the appropriate location and management of winter forage crops; and

(v) suitable management practices for strip grazing.

(e) A description of nutrient management practices including a nutrient budget for the farm enterprise calculated using the model OVERSEER® in accordance with the OVERSEER® use protocols, or using any other model or method approved by the Chief Executive Officer of Waikato Regional Council.

(f) A description of cultivation management, including:

(i) The identification of slopes over 15 o and how cultivation on them will be avoided; unless contaminant discharges to water bodies from that cultivation can be avoided; and
(ii) How the adverse effects of cultivation on slopes of less than 15° will be mitigated through appropriate erosion and sediment controls for each paddock that will be cultivated including by:

(a) assessing where overland flows enters and exits the paddock in rainfall events; and
(b) identifying appropriate measures to divert overland flows from entering the cultivated paddock; and
(c) identifying measures to trap sediment leaving the cultivated paddock in overland flows; and
(d) maintaining appropriate buffers between cultivated areas and water bodies (minimum 5m setback).
(e) A description of collected animal effluent management including how the risks associated with the operation of effluent systems will be managed to minimise contaminant discharges to groundwater or surface water.
(f) A description of freshwater irrigation management including how contaminant loss arising from the irrigation system to groundwater or surface water will be minimised.

3. A spatial risk map(s) at a scale that clearly shows:

(a) The boundaries of the property; and

(b) The locations of the main land uses[35] that occur on the property; and

(c) The locations of existing and future mitigation actions to manage contaminant diffuse discharges; and

(d) Any relevant internal property boundaries that relate to risks and mitigation actions described in this plan; and

(e) The location of continually flowing rivers, streams, and drains and permanent lakes, ponds and wetlands; and

(f) The location of riparian vegetation and fences adjacent to water bodies; and

(g) The location of critical source areas for contaminants, as identified in 2 (c) above.

4. A description of the actions that will be undertaken in response to the risks identified in the risk assessment in 2 above (having regard to their relative priority) as well as where the mandatory time-bound actions will be undertaken, and when and to what standard they will be completed.

5. A description of the following:

(a) Actions, timeframes and other measures to ensure that the diffuse discharge of nitrogen from the property or enterprise, as measured by the five-year rolling average annual nitrogen loss as determined by the use of the current version of OVERSEER®, does not increase beyond the property or enterprise's Nitrogen Reference Point, unless other suitable mitigations are specified; or

(b) Where the Nitrogen Reference Point exceeds the 75th percentile nitrogen leaching value, actions, timeframes and other measures to ensure the diffuse discharge of nitrogen is reduced so that it does not exceed the 75th percentile nitrogen leaching value by 1 July 2026, except in the case of Rule 3.11.5.5.

Vegetable growing minimum standards

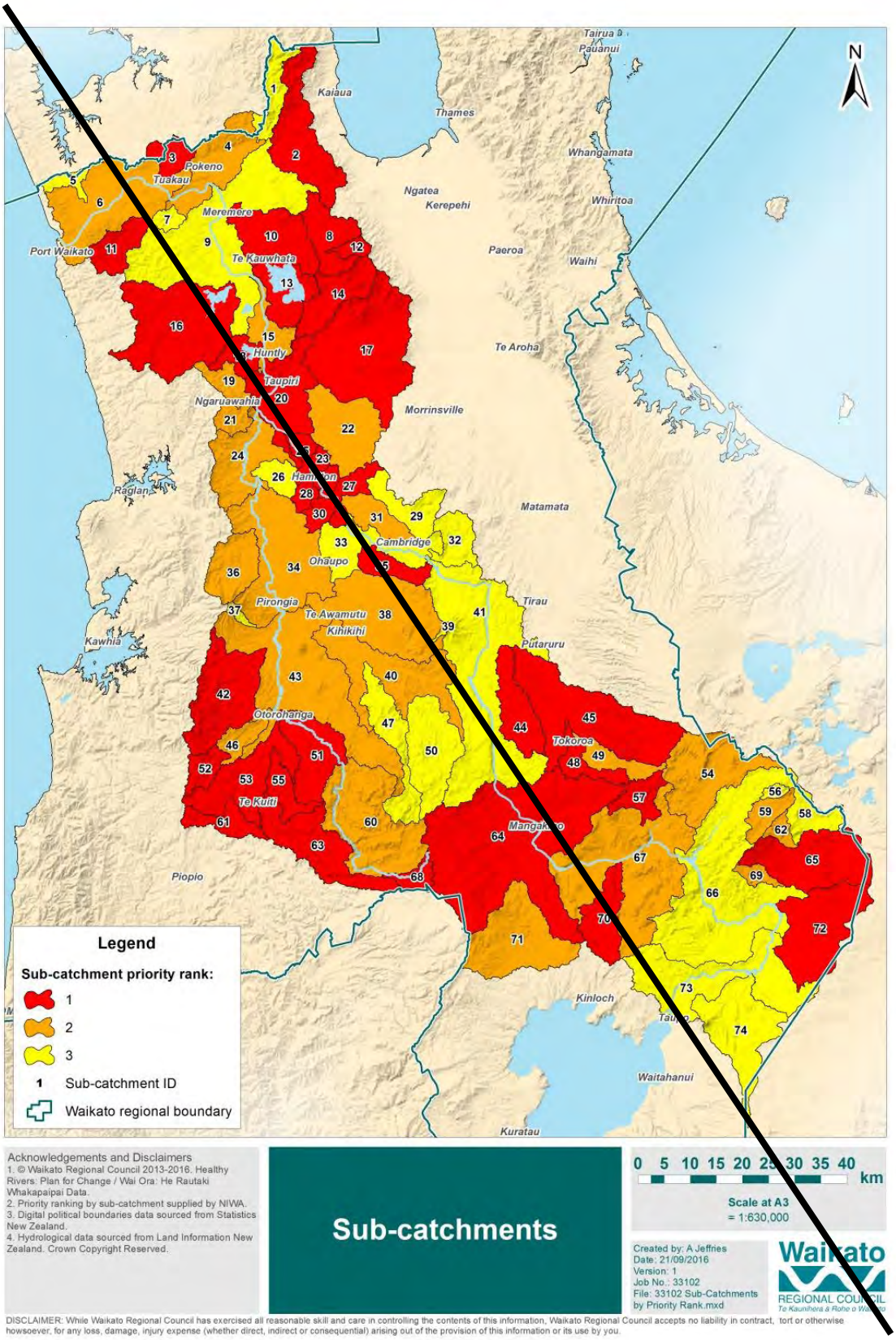
Farm environment plans required under Rule 3.11.5.5 shall, in addition to the matters set out above, ensure the following matters are addressed.

No	Contaminant	Vegetable growing minimum standards
1	Nitrogen, Phosphorus	Annual soil testing regime, fertiliser recommendations by block and by crop

[35] For dairy farms this might be the OVERSEER® blocks, for drystock farms this might be Land Use Capability blocks.

~~2~~	~~Nitrogen, Phosphorus~~	~~Tailored fertiliser plans by block and by crop~~
~~3~~	~~Nitrogen, Phosphorus~~	~~Both (1) and (2) prepared by an appropriately qualified person~~
~~4~~	~~Nitrogen, Phosphorus~~	~~Annual calibration of fertiliser delivering systems through an approved programme such as Spreadmark/Fertspread~~
~~5~~	~~Soil/Phosphorus~~	~~As a minimum by block: an approved erosion and sediment control plan constructed in accordance with the Erosion and Sediment Control Guidelines for Vegetable Production June 2014~~
~~6~~	~~Nitrogen, Phosphorus~~	~~Documentation available for proof of fertiliser placement according to recommended instruction~~
~~7~~	~~Nitrogen, Phosphorus~~	~~Adoption and use of improved fertiliser products proved effective and available such as formulated prills, coatings and slow release mechanisms~~
~~8~~	~~Nitrogen, Phosphorus~~	~~Evidence available to demonstrate split applications by block/crop following expert approved practice relating to:~~ ~~o form of fertiliser applied~~ ~~o rate of application~~ ~~o placement of fertiliser~~ ~~o timing of application~~[36]

[36] J and A Anderson PC1-4261, Beef and Lamb PC1-11508, Federated Farmers V1PC1-766, Horticulture NZ PC1-12435, S and A Kelton PC1-7855, Maniapoto Maori Trust Board PC1-9366



Map 3.11-2: Map of the Waikato and Waipa River Catchments, showing sub-catchments

~~PART B~~

5.1.5 Conditions for Permitted Activity Rule 5.1.4.11 and Standards and Terms for Controlled Activity Rules/Ngā āhuatanga o te Ture 5.1.4.11 mō ngā Mahi e Whakaaetia ana, me ngā Paerewa me ngā Herenga mō ngā Ture mō ngā Mahi ka āta Whakahaerehia

q) In the Waikato and Waipa Catchment the Waikato Regional Council shall be notified in writing at least 20 working days prior to commencing harvest operations in a forest. The written notice must include a harvest plan unless otherwise agreed with Waikato Regional Council.

Harvest Plan

For the purposes of 5.1.5 (q) a forest harvest plan means a documented plan, including a harvest plan map, which clearly identifies the area to be harvested and the method to be followed to ensure identified risks to water bodies arising from the harvesting operation are managed.

The harvest plan should include:

a. A harvest plan map to a scale of up to 1:10,000 showing:

   i. Title, date, north arrow and harvest area boundary.

   ii. The locations of all existing and proposed roads, tracks, landings, fire breaks and stream crossings.

   iii. The locations of all water bodies, streams and wetlands.

   iv. The location of any protected riparian vegetation including significant natural areas.

   v. The proposed harvest methodology including cable and ground based harvest areas and the proposed direction of extraction.

   vi. Proposed slash disposal areas.

b. Associated text specifying the controls on the harvest operations to manage the identified risks to water bodies in the block from the harvesting operations including:

   i. Measures to control sediment discharges to water.

   ii. Management of slash.

   iii. Operations restrictions around water bodies.

   iv. Areas of existing riparian vegetation to be protected.[37]

[37] There are no specific submissions seeking deletion of this section, as they pre-date the Forestry NES. A general submission seeking deletion of PC1 could be relied on, such as I Alexander PC1-10352.

PART C

Insert the following terms into the Glossary in alphabetical order.

Additions to Glossary of Terms/Ngā Āpitihanga ki te Rārangi Kupu

~~**Definition - 75th percentile nitrogen leaching value**~~

75th percentile nitrogen leaching value: The 75th percentile value (units of kg N/ha/year) of all of the Nitrogen Reference Point values for dairy farming properties ~~and enterprises~~ within each river (including properties within any lake Freshwater Management Unit within the relevant river Freshwater Management Unit)[38] Freshwater Management Unit^ and which ~~are~~ is determined by the Chief Executive of the Waikato Regional Council and published on the Waikato Regional Council website and can be based on aggregated data supplied to the Waikato Regional Council and individual farm data[39] received by the Waikato Regional Council by ~~30 November 2020~~YYY.[40]

~~**Definition - Best management practice/s**~~

~~**Best management practice/s:** For the purposes of Chapter 3.11, means maximum feasible mitigation to reduce the diffuse discharge of nitrogen, phosphorus, sediment or microbial pathogens from land use activities~~[41].

~~**Definition - Certified Farm Environment Planner**~~

Certified Farm Environment Planner: is a person ~~or entity~~[42] certified by the Chief Executive Officer of Waikato Regional Council ~~and listed on the Waikato Regional Council website as a Certified Farm Environment Planner~~ and has as a minimum the following qualifications and experience:

a. ~~five~~ three[43] years' relevant experience in agricultural and horticultural[44] ~~the management of pastoral, horticulture or arable~~ farm systems; and
b. a Certificate of Completion in Advanced Sustainable Nutrient Management in New Zealand Agriculture from Massey University or[45] ~~completed~~ an equivalent[46] advanced training or a tertiary qualification in sustainable nutrient management ~~(nitrogen and phosphorus)~~[47]; and
c. experience in soil conservation and sediment management;~~.~~

and agrees to follow the procedures and guidelines set out by Waikato Regional Council and audits of the Certified Farm Environment Planner's work by Waikato Regional Council show that the Planner is preparing and/or approving Farm Environment Plans in accordance with the procedures and guidelines.[48]

Note: Certified Farm Environment Planners will be listed on the Waikato Regional Council's website.

~~**Definition - Commercial vegetable production**~~

Commercial vegetable production: means the following vegetables grown in New Zealand for commercial purposes:

i. asparagus, artichokes, Asian vegetables, beans, beetroot, boxthorn, broccoflower, broccoli, broccolini, Brussels sprouts, burdock, cabbage, capsicums, carrots, cauliflower, celeriac, celery, chilli peppers, chokos, courgettes, cucumbers, eggplant, Florence fennel, garland chrysanthemum, garlic, gherkins, herbs, Indian vegetables, kohlrabi,

[38] Federated Farmers V1PC1-790
[39] DairyNZ PC1-10253
[40] N and C Prendergast PC1-1779, R Hathaway PC1-5399
[41] Federated Farmers V1PC1-791, FANZ PC1-10659
[42] Forest and Bird PC1-8478
[43] Hill Country Farmers Group PC1-8072
[44] NZIPIM PC1-8445
[45] Ballance PC1-7113, FANZ PC1-10662, Ravensdown PC1-10187, Oji PC1-8854
[46] Ravensdown PC1-10187, FANZ PC1-10662
[47] NZIPIM PC1-8445
[48] Forest and Bird PC1-8478

kumara, leeks, lettuces, marrows, melons, okra, onions, parsnips, peas, potatoes, puha, pumpkin, purslane, radishes, rakkyo, rhubarb, salad leaves, salsify, scallopini, scorzonera, shallots, silverbeet, spinach, spring onions, sprouted beans and seeds, squash, swedes, sweetcorn, taro, tomatoes, turnips, ulluco, watercress, witloof, yakon, yams, zucchinis~~, potatoes, tomatoes, asparagus, onions~~; and

ii. the hybrids of the vegetables listed in subparagraph i.

Dairy Cattle: means cows that are or have been used for milk production, whether they are being grazed on a milking platform or not.[49]

~~**Definition - Edge of field mitigation/s**~~

Edge of field mitigation/s: mitigation actions or technologies to reduce loss of contaminants from farm land by intervening at edge of field either on or off-farm, and includes constructed wetlands, sedimentation ponds and detention bunds.

~~**Definition - Enterprise/s**~~

~~**Enterprise/s:** means one or more parcels of land held in single or multiple ownership to support the principle land use or land which the principle land use is reliant upon, and constitutes a single operating unit for the purposes of management. An enterprise is considered to be within a sub-catchment if more than 50% of that enterprise is within the sub-catchment.~~[50]

~~**Definition - Farm Environment Plan/s**~~

Farm Environment Plan/s: For the purposes of Chapter 3.11, means a plan developed in accordance with Schedule 1.

Feedlot: means the containment and feeding of livestock, covered or uncovered, for the purpose of finishing for meat production, and the activity precludes the maintenance of vegetative groundcover.[51]

~~**Definition - Five-year rolling average**~~

~~**Five-year rolling average:** means the average of modelled nitrogen leaching losses predicted by OVERSEER® from the most recent 5 years.~~

~~**Definition - Good Management Practice/s**~~

Good ~~Management~~ Farming[52] **Practice/s:** For the purposes of Chapter 3.11, means ~~industry agreed and approved~~[53] practices and actions undertaken on a property or enterprise that manage,[54] reduce or minimise the risk of contaminants entering a water body.

Sacrifice Paddock: means the containment of livestock in a paddock that precludes the maintenance of vegetative groundcover.[55]

~~**Definition - Sub-catchment**~~

Sub-catchment: For the purposes of Chapter 3.11, means an area of land within the Waikato or Waipa[56] River catchments representing the contributing area draining to one of ~~69~~74[57] locations in the stream and river network~~, and used as the basic spatial unit for analysis and modelling~~[58].

[49] Consequential change to the relief sought by P Hurley PC1-1088, Federated Farmers V1PC1-338.
[50] Brodie PC1-2889, Waitomo District Council PC1-10312, G Kilgour PC1-1884
[51] Consequential change to the relief sought by P Hurley PC1-1088, Federated Farmers V1PC1-338.
[52] Ballance PC1-6862, FANZ PC1-9712
[53] Oji PC1-8937
[54] Federated Farmers V1PC1-800
[55] Consequential change to the relief sought by P Hurley PC1-1088, Federated Farmers V1PC1-338.

[56] Mercury Limited PC1-9685
[57] *Refer to Map 3.11-2.*
[58] Federated Farmers V1PC1-810

PART D

Consequential amendments to Waikato Regional Plan/Ngā whakatikahanga ka hua ake mō roto i te Mahere ā-Rohe a Waikato

Formatting used:

- Note that for the following text the new wording underlined and deleted wording has ~~strikethrough~~
- Blue "filling" marks different chapters/sections of the WRP and is inserted for ease of reference only
- Italics are for information only and are not matters to be submitted on

Operative Plan Provision	*Proposed Change*
Readers Guide	
Introduction	*Add to end second para*: Plan Change No.1 - Waikato and Waipa River Catchments (made operative on [*date*])
Abbreviations and Symbols	*Add the following alphabetically:* NPS FM National Policy Statement Freshwater Management FEP Farm Environment Plan Ha hectare FMU Freshwater Management Unit N Nitrogen P Phosphorus *E.coli Escherichia coli*

2. Matters of Significance to Maori	
2.1.1 General	*Add a new section at the end of 2.1.1:* Legislation passed in 2010 and 2012* introduced a new era of co-management for the Waikato and Waipa River catchments. Co-management provides ways for iwi to manage the rivers together with central and local government. Waikato and Waipa River iwi – Ngati Maniapoto, Raukawa, Ngati Tuwharetoa, Te Arawa River Iwi and Waikato-Tainui – and Waikato Regional Council have been partners in developing the *Healthy Rivers: Plan for Change/ Wai Ora: He Rautaki Whakapaipai* project. This project was set up to assist in achieving the *Vision and Strategy for the Waikato River/ Te Ture Whaimana o Te Awa o Waikato*. This Vision and Strategy is the primary direction-setting document for the Waikato and Waipa Rivers and focuses on restoring and protecting the health and well-being of the rivers for current and future generations. Chapter 3.11 has arisen from the above co-management project together with the Government's

	National Policy Statement for Freshwater Management 2014, and specifically addresses the Waikato and Waipa River catchments. * Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010; Ngati Tuwharetoa, Raukawa and Te Arawa River Iwi Waikato River Act 2010 and Nga Wai o Maniapoto (Waipa River) Act 2012.
3.1 Water Resources	
3.1 Background and Explanation	*Add to end of para 4:* Chapter 3.11 sets out more stringent provisions within the Waipa and Waikato River catchments to address the trend of degrading water quality.
	Add new sentence as second para in section "Tangata Whenua": The Waikato and Waipa River catchments are co-managed by the Waikato and Waipa River iwi – Ngati Maniapoto, Raukawa, Ngati Tuwharetoa, Te Arawa River Iwi and Waikato-Tainui – and Waikato Regional Council. The *Vision and Strategy for the Waikato River/ Te Ture Whaimana o Te Awa o Waikato* is the primary direction-setting document for the Waikato and Waipa Rivers and focuses on restoring and protecting the health and well-being of the rivers for current and future generations. (Refer also to CH 3.11)
	Amend last sentence under "Issue and Objective": ….the objectives are found in Chapter 3.2 – ~~3.9~~3.11 of this Plan…..
3.2 Management of Water Resources	
3.2 Water Management Classes	*Add as a new last paragraph:* **Freshwater Management Units** In Chapter 3.11, Fresh Water Management Units and associated water quality targets have been established for the Waikato and Waipa River catchments. Within the Waikato and Waipa River catchments, these targets are used in decision-making processes guided by the objectives in Chapter 3.11 and for future monitoring of changes in the state of water quality within the catchments. With regard to consent applications for diffuse discharges or point source discharges of nitrogen, phosphorus, sediment and microbial pathogens it is not intended, nor is it in the nature of water quality targets, that they be used directly as receiving water compliance limits/standards.
3.2.4.1 Water Management Classes	*Amend 3.2.4.1(e):* …. apply to a water body as well as policies in Section 3.11.3 for waterbodies in the Waikato and Waipa River catchments, when making decisions …. the same issue and are inconsistent particular regard….
3.3.3 Water Takes - *Policies*	
Policy 1 (c) *(Establish Allocation and*	*Amend Policy 1(c):* ….in accordance with the policies in Chapters 3.2 and 3.11 of this Plan.

Minimum Flows for Surface Water)	
Policy 4 (f) (Establish Sustainable Yields from Groundwater)	*Amend Policy 4(f):* ….in accordance with the policies in Chapters 3.2 and 3.11 of this Plan.
Standard 3.3.4.28 (How riparian planting and stock exclusion fencing shall apply)	*Add a new advisory note:* ~~In~~ Within the Waikato and Waipa River catchments, additional requirements for riparian planting and stock exclusion fencing are outlined in~~refer also to~~[59] refer also to Chapter 3.11.

3.4.5 Implementation methods – The Use of Water	
Rule 3.4.5.6 Permitted Activity Rule - Use of Water for Crop and Pasture Irrigation	*Add a new advisory note:* Subject to compliance with any specified requirements, reporting through a Farm Environment Plan is a valid means of ~~of supplying data under this rule~~ to describe how irrigation water balances will be calculated and managed[60].
Rule 3.4.5.7 Controlled Activity Rule - Use of Water for Crop and Pasture Irrigation	*Add a new advisory note:* Subject to compliance with any specified requirements, reporting through a Farm Environment Plan is a valid means of supplying data under this rule.

3.5 Discharges	
Background and Explanation	*Insert new section at end of the Background and Explanation section:* **Discharges associated with Farming Land Use** Chapter 3.11 addresses the use of land for farming in the Waikato and Waipa River catchments including associated diffuse.
Objective 3.5.2	*Amend Objective 3.5.2 by adding a new clause c) as follows (and consequential renumbering):* c) does not have adverse effects that are inconsistent with the objectives for the Waikato and Waipa River catchments in Section 3.11.2.

Principal	*Amend Principal Reasons for adopting the Objective:*

[59] Waikato Regional Council PC1-3685
[60] Waikato Regional Council PC1-3685

Reasons for adopting the Objective	…outlined in Sections 3.1.2, 3.11.2 and 5.2.5 of this Plan…..
3.5.3 Policy 2(a) *Managing Discharges to Water with More than Minor Adverse Effects)*	*Amend 3.5.3 Policy 2(a):* … with the policies in Sections 3.2.3 and 3.11.3 of this Plan….
3.5.3 Policy 4 Discharges to Land: Advisory Note	*Add a new advisory note:* In the Waikato and Waipa River catchments, refer also to Chapter 3.11.
3.5.3 Policy 5(b) *Ground Water*	*Amend 3.5.3 Policy 5(b):* … with the policies in Sections 3.2.3 and 3.11.3 of this Plan ….
Explanation and Principal Reasons for Adopting the Policies	*Add at the end of Policy 2 para:* The cross reference to Section 3.11.3 recognises the specific water quality objectives sought to be achieved for the Waikato and Waipa River catchments through Chapter 3.11. *Add at the end of Policy 6 para.:* Chapter 3.11 addresses how water quality aspects of the Vision and Strategy will be given effect to in the Waikato and Waipa River catchments.
Rule 3.5.5.1 *Permitted Activity Rule - Discharge of Farm Animal Effluent onto Land*	*Amend opening of rule:* The point-source discharge of contaminants onto land …
Advisory Notes to Rule 3.5.5.1 Permitted Activity Rule - Discharge of Farm Animal Effluent onto Land	*Add new bullet point:* Diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens associated with use of land for farming in the Waikato and Waipa River catchments are addressed in Chapter 3.11.
Rule 3.5.5.2 *Permitted Activity Rule - Discharge of Feed Pad and Stand-Off Pad Effluent onto Land*	*Amend opening of rule:* The point-source discharge of feed pad …

Advisory	*Add new bullet point:*

Notes to Rule 3.5.5.2 *Permitted Activity Rule - Discharge of Feed Pad and Stand-Off Pad Effluent onto Land*	Diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens associated with use of land for farming in the Waikato and Waipa River catchments are addressed in Chapter 3.11.
Rule 3.5.5.3 *Controlled Activity Rule - Existing Discharge(s) of Effluent from Pig Farms onto Land*	*Amend opening of rule:* The point-source discharge of contaminants …
Advisory Notes to Rule 3.5.5.3 *Controlled Activity Rule - Existing Discharge(s) of Effluent from Pig Farms onto Land*	*Add new bullet point:* *Diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens associated with use of land for farming in the Waikato and Waipa River catchments are addressed in Chapter 3.11.*
Rule 3.5.5.4 Discretionary Activity Rule - Discharge of Effluent onto Land	*Amend opening of rule:* The point-source discharge of farm …
Advisory Notes to Rule 3.5.5.4 Discretionary Activity Rule - Discharge of Effluent onto Land	*Add new bullet point:* Diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens associated with use of land for farming in the Waikato and Waipa River catchments are addressed in Chapter 3.11.
Rule 3.5.5.5 Discretionary Activity Rule - Discharge of Treated Effluent to Water	*Amend opening of rule:* Except as provided for by Rule 3.5.4.6, the point-source discharge of treated…

Advisory Notes to Rule 3.5.5.5 Discretionary Activity Rule - Discharge of Treated Effluent to Water	*Add new bullet point:* Diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens associated with use of land for farming in the Waikato and Waipa River catchments are addressed in Chapter 3.11.
Rule 3.5.5.6 Prohibited Activity Rule - Discharge of Untreated Animal Effluent	*Amend opening of rule:* The point-source discharge of untreated …
Explanation and Principal reasons for adopting methods 3.5.5.1 to 3.5.5.6	*Add a new sentence at the end of first para:* Additional methods are provided in Chapter 3.11 to manage diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens associated with farming land uses within the Waikato and Waipa River catchments.
Rule 3.5.10.2 *Controlled Activity Rule - Take, Diversion and Discharge of Water Pumped from Existing Drainage and Flood Control Schemes*	*Add new clause (v) to Rule 3.5.10.2:* (v) In the case of the Waikato and Waipa River catchments, measures that recognise and provide for the objectives in Chapter 3.11.

3.6 Damming & Diverting	
Objective 3.6.2 (a)	*Amend Objective 3.6.2:* (a)….in Sections 3.1.2 and 3.11.2
Principal Reasons for Adopting the Objectives	*Amend first sentence:* … in Sections 3.1.2 and 3.11.2 and for….

3.7 Wetlands	
Objective 3.7.2	*Amend the wording:* Refer to Objectives 3.1.2 and 3.11.2 Objective 6.

Policies 3.7.3 Explanation and Principal Reasons	*Add a sentence at end of Explanation and Principal Reasons:* For Whangamarino Wetland refer also to Section 3.11.2 Objective 6 and Section 3.11.3 Policy 15.
Rule 3.7.4.6 *Advisory note* *Discretionary Activity Rule - Creation of New Drains and Deepening of Drain Invert Levels*	*Amend advisory note first bullet:* ….Policy 1 of Section 3.7.3 and for Whangamarino Wetland, Section 3.11.2 Objective 6 and Section 3.11.3 Policy 15.
Rule 3.7.4.7 Discretionary Activity Rule – *Drainage of Wetlands*	*Amend advisory note first bullet:* *…Policy 1 of Section 3.7.3 and for Whangamarino Wetland, Section 3.11.2 Objective 6 and Section 3.11.3 Policy 15.*
Explanation and Principal Reasons for Adopting Methods 3.7.4.1 to 3.7.4.7	*Amend first para:* *…to achieve Objectives 3.1.2 and 3.11.2 Objective 6…..Other methods in Chapters 3.4, 3.5, 3.6, 3.11…..*

3.8 Drilling	
3.8.2 Objective	*Amend Objective 3.8.2 (a):* a) … in sections 3.1.2 and 3.11.2

3.9 Non-Point Source Discharges	
New section proposed	*Add a new para after the Background and Explanation section:* **The Relationship between Chapter 3.9 and Chapter 3.11** With regard to the Waikato and Waipa River catchments, the objectives, policies, methods (including rules) in this chapter should be read in conjunction with the provisions of Chapter 3.11. Where there is any inconsistency between this Chapter and Chapter 3.11, the provisions of Chapter 3.11 prevail.
Objective 3.9.2	*Amend Objective 3.9.2:* *….Objectives 3.1.2 and 3.11.2*

Explanation and Principal Reasons for Adopting the Policies	*Amend last sentence of last para under Policy 2:* *… Lake Taupo and Waikato/Waipa River catchments….as detailed in Sections 3.10 and 3.11 respectively.* *[Add a last sentence at end of para on Policy 3:* *In the Waikato and Waipa River catchments, Rule 3.11.5.3 applies.]*
Rule 3.9.4.11 *Permitted Activity Rule - Fertiliser Application*	*Add opening words:* *Except as otherwise provided for, or restricted by an approved Farm Environment Plan, in accordance with the provisions and requirements of Chapter 3.11, (which applies in the Waikato and Waipa River catchments) ~~T~~the discharge of fertiliser…*
Explanation and Principal Reasons for Adopting Methods	*Add to end of first para:* *For rules and methods relating to the Waikato and Waipa River catchments – refer also to provisions in Chapter 3.11.* *Add to end of Method 3.9.4.7:* *Refer to Chapter 3.11 for stock exclusion rules that apply in the Waikato and Waipa River catchments.* *Add to middle of Method 3.9.4.10:* *Apart from within the Lake Taupo Catchment and Waikato and Waipa River catchments, Waikato Regional ……*

4.2 River and Lake bed structures	
4.2.2 Objective	*Amend Objective 4.2.2 (b):* ….Objectives 3.1.2 and 3.11.2.
Principal Reasons for Adopting the Objective	*Amend the para relating Part b):* …and Objectives 3.1.2 and 3.11.2 in the Water module.
4.2.3 Policy 2 (Management of Structures)	*Amend 4.2.3 Policy 2 (b):* …in Sections 3.2.3 and 3.11.3…
Rule 4.2.8.2 *Controlled Activity Rule - Bridges*	*Amend Rule 4.2.8.2 matter (vii):* …Water Management Class in this Plan and in the case of the Waikato and Waipa River catchments, the relevant water quality objectives in Chapter 3.11.
Rule 4.2.8.3 *Restricted Discretionary Activity Rule - Bridges*	*Amend Rule 4.2.8.3 matter (xi*): …Water Management Class in this Plan and in the case of the Waikato and Waipa River catchments, the relevant water quality objectives in Chapter 3.11.

Rule 4.2.9.3 *Controlled Activity Rule - Culverts for Catchment Areas Not Exceeding 500 Hectares*	*Amend Rule 4.2.9.3 matter (xii):* *…Water Management Class in this Plan and in the case of the Waikato and Waipa River catchments, the relevant water quality objectives in Chapter 3.11.*
Rule 4.2.10.1 *Permitted Activity Rule - Discharge and Intake structures*	*Amend Rule 4.2.10.1 condition (n):* *…Water Management Classes in Section 3.2.4 of this Plan and in the case of the Waikato and Waipa River catchments, the relevant water quality objectives in Chapter 3.11.*
Rule 4.2.11.2 *Restricted Discretionary Activity Rule - Fords*	*Amend Rule 4.2.11.2 matter xi):* *…Water Management Classes in this Plan and in the case of the Waikato and Waipa River catchments, the relevant water quality objectives in Chapter 3.11.*
Rule 4.2.16.1 *Controlled Activity Rule - Channel Training Structures*	*Amend Rule 4.2.16.1 matter (xi):* *…Water Management Classes and in the case of the Waikato and Waipa River catchments, the relevant water quality objectives in Chapter 3.11.*
Rule 4.2.20.3 *Controlled Activity Rule - Removal or Demolition of Structures*	*Amend Rule 4.2.20.3 matter (x):* *…Water Management Classes in Section 3.2.4 of this Plan and in the case of the Waikato and Waipa River catchments, the relevant water quality objectives in Chapter 3.11.*

4.3 River and Lake Bed Disturbances	
4.3.1 Issue 4	*Amend 4.3.1 Issue 4 (c):* ….inconsistent with Chapters 3.1 and 3.11
4.3.2 Objective	*Amend Objective 4.3.2 (b):* …with objectives in Chapters 3.1 and 3.11 *Amend Objective 4.3.2 (l):* …with objectives in Chapters 3.1 and 3.11

Principal Reasons for Adopting the Objective	*Amend para relating to Part b):* … objectives in Chapters 3.1 and 3.11 of this Plan *Amend para relating to Part l):* … in Chapters 3.1 and 3.11
4.3.3. Policy 1 (Bed and Bank Alterations and Extraction of Sand, Gravel and Other Bed Material)	*Amend 4.3.3. Policy 1 (b):* …in Section 3.2.3 and the objectives in Section 3.11.2, or….
4.3.3 Policy 3 (Clearance of Vegetation)	*Amend 4.3.3 Policy 3 (a):* …in Chapters 3.2 and 3.11
Explanation and Principal Reasons for Adopting the Policies	*Add to the end of the paragraph relating to Policy 4:* For the Waikato and Waipa River catchments, regulatory provisions are set out in Chapter 3.11.
Method 4.3.5.3 *Livestock access*	*Add a new first sentence:* The Waikato and Waipa River catchments are excluded from this method and are addressed in Chapter 3.11.
Rule 4.3.5.4 *Permitted Activity Rule - Livestock on the Beds and Banks of Priority One Water Bodies*	*Amend opening words of Rule 4.3.5.4:* …any water body within the Waikato and Waipa River catchments or any water body mapped in the …..
Rule 4.3.5.4 *Advisory Note*	*Add a new first bullet point:* ● Controls on livestock in the Waikato and Waipa River catchments are set out in Chapter 3.11.
Rule 4.3.5.5 *Discretionary Activity Rule - Livestock on the Beds and Banks of Priority One water Bodies*	*Amend opening words to rule 4.3.5.5:* … Livestock Exclusion Area where that Livestock Exclusion Area is outside the Waikato and Waipa River catchments:
Rule 4.3.5.5	*Add a new first bullet point:* ● Controls on livestock access to water bodies in the Waikato and Waipa River catchments are set

Advisory Note	out in Chapter 3.11.
4.3.5.6 *Non-Complying Activity - Livestock on the Beds and Banks of Rivers and Lakes*	*Amend opening words to Rule 4.3.5.6:* Except as provided for in Rules 4.3.5.4 and 4.3.5.5 or within the Waikato and Waipa River catchments, the rules set out in Chapter 3.11, …
Rule 4.3.5.6 Advisory Note	*Add a new first bullet point:* • Controls on livestock in the Waikato and Waipa River catchments are set out in Chapter 3.11.
Explanation and Principal Reasons for Adopting Methods	*Add a new first sentence:* The access of stock to waterbodies in the Waikato and Waipa River catchments are addressed in Chapter 3.11.
Rule 4.3.6.2 *Controlled Activity Rule - Extraction of Bed Material and Disturbance of River and Lake Beds associated with Lawfully Established Structures*	*Amend 4.3.6.2 matter xiii):* … Water Management Classes in this Plan and in the case of the Waikato and Waipa River catchments, the water quality objectives in Chapter 3.11.

5.1 Accelerated Erosion	
Background and Explanation	*Add a new paragraph after the paragraph entitled Background and Explanation:* **Relationship between Chapter 5.1 and Chapter 3.11**. Within the Waikato and Waipa River catchments, the diffuse discharge of sediment to water as a result of the use of land for farming is regulated by Chapter 3.11. Those requirements are separate to and distinct from the matters regulated in Chapter 5.1. The requirements of Chapter 5.1 and 3.11 must, therefore, be read together.
5.1.2 Objective	*Amend 5.1.2(b):* …Objectives 3.1.2 and 3.11.2
Principal Reasons for Adopting the Objective	*Amend 4th para:* ….Objectives 3.1.2 and 3.11.2 establishes ……..in Chapters 3.2 and 3.11 of this Plan.
5.1.4.11	*Add new advisory note:*

Permitted Activity Rule - Soil Disturbance, Roading and Tracking and Vegetation Clearance	With regard to the clearance of vegetation or planted production forest in the Waikato and Waipa River catchments, note that subsequent land use may be regulated by Rule 3.11.5.7.
5.1.4.12 *Permitted Activity Rule - Soil Cultivation Adjacent to water Bodies*	*Amend opening statement:* Except as controlled by rules 7.2.6.1 and 7.2.6.2, or in the Waikato and Waipa River catchments, as required by rule 3.11.5.2, or by an approved Farm Environment Plan developed under Rules [3.11.5.3 or] 3.11.5.4 or 3.11.5.5, soil cultivation not less than…
5.1.4.13 *Discretionary Activity Rule - Soil Disturbance, Roading and Tracking and Vegetation Clearance*	*Add to the beginning of Clause 2:* Except as allowed by an approved Farm Environment Plan developed under Rules [3.11.5.3 or] 3.11.5.4 or 3.11.5.5, ~~S~~soil cultivation… *Add new advisory note:* With regard to the clearance of vegetation or planted production forest in the Waikato and Waipa River catchments, note that subsequent land use may be regulated by Rule 3.11.5.7.
5.1.4.14 *Controlled Activity Rule - Soil Disturbance, Roading and Tracking and Vegetation Clearance, Riparian Vegetation Clearance in High Risk Erosion Areas*	*Add an advisory note:* *With regard to the clearance of vegetation or planted production forest in the Waikato and Waipa River catchments, note that subsequent land use may be regulated by Rule 3.11.5.7.*
5.1.4.15 *Discretionary Activity Rule - Soil Disturbance, Roading and Tracking and Vegetation Clearance, Riparian Vegetation Clearance in High Risk Erosion Areas*	*Add an advisory note:* *With regard to the clearance of vegetation or planted production forest in the Waikato and Waipa River catchments, note that subsequent land use may be regulated by Rule 3.11.5.7.*
Explanation	*Add to end of para that deals with Method 5.1.4.5:*

and Principal Reasons for Adopting Methods	*Within the Waikato and Waipa River catchments, there are policy and regulatory provisions that require the development of Farm Environment Plans for some land uses (refer Chapter 3.11).* *Add to end of para that deals with Method 5.1.4.9:* *A regulatory approach has been introduced for the Waikato and Waipa River catchments in Chapter 3.11.*
5.2 Discharges onto or into land	
Integration with Water and Air Management	*Add to para 3:* …discussed in Chapters 3.5 and 3.11.
5.2.2 Objective	*Amend clause b):* …in Section 3.1.2 or the objectives for the Waikato and Waipa River catchments in Section 3.11.2.
5.2.3 Policy 2 Other Discharges Onto or Into Land	*Amend 5.2.3 Policy 2(b):* *…in Sections 5.1.3 and 3.11.3* *Amend 5.2.3 Policy 2(c):* *… in Section 3.2.3 3 or in the Waikato and Waipa River catchments, the water quality objectives in Section 3.11.2*
Explanation and Principal Reasons for adopting Methods 5.2.5.1 to 5.2.5.8	*Add as a last sentence to the opening paragraph:* *For activities in the Waikato and Waipa River catchments, refer also to the objectives and policies in Chapter 3.11.*
5.3 Contaminated Land	
Objective 5.3.2	*Amend clause b):* …in Sections 3.1.2 and 3.11.2
Principal Reasons for adopting the Objective	*Amend 3rd para:* ….in Chapters 3.1, 3.11 and 6.1.
Glossary of Terms	

property	*Amend definition of "property":* For the purposes of Chapters 3.3, ~~and~~ 3.4 and 3.11 means one or more allotments contained in single certificate of title, and also includes all adjacent land that is in the same ownership but contained in separate certificates of title. For the purpose of Rule[s 3.11.5.3 and] 3.11.5.4, a property is considered to be within a sub-catchment if more than 50% of that property is within the sub-catchment.