**IN THE MATTER** of the Resource Management Act 1991

### AND

IN THE MATTER	of the Proposed Waikato Regional Plan
	Change 1 and Variation 1 to Proposed Plan
	Change 1: Waikato and Waipā Catchments
	Block 3 Hearing – Parts C7 to C10

AND

IN THE MATTER	of the submissions and further submissions
	by Ravensdown Limited
	(Submitter ID 74058)

# STATEMENT OF EVIDENCE OF CARMEN WENDY TAYLOR ON BEHALF OF RAVENSDOWN LIMITED

5 JULY 2019

#### SUMMARY

- A. This statement of planning evidence relates to matters addressed in this Hearing Block (Block 3) where Ravensdown Limited (Ravensdown) lodged submissions and further submissions on the Proposed Waikato Regional Plan Change 1: Waikato and Waipā Catchments (PC1) and Variation 1 to the Proposed Waikato Regional Plan: Waikato and Waipā River Catchments (Variation 1), hereafter referred to as 'PC1 and Variation 1'. The relevant PC1 and Variation 1 provisions include: the 'background and explanation'; six policies; implementation methods; the rules that apply to commercial vegetable production; the nitrogen reference point (NRP) schedule; Schedule 1 which outlines the requirements for Farm Environment Plans (FEP); and, four definitions.
- B. As outlined in my evidence, including my consideration of matters raised in Ms Wilkes' evidence, I consider that amendments to some of the section 42A Report's recommendations on PC1 and Variation 1 provisions are required, as overviewed in the following paragraphs.
- C. The section 42A Report recommendations in relation to commercial vegetable production (CVP) provisions (refer to Section 3 of my evidence) and the FEP schedule (refer to Section 5 of my evidence) are generally supported, subject to some amendments, as they reflect an appropriate approach in the context of the objectives, and associated resource management framework, now accommodated in PC1 and Variation 1. However, as outlined in Section 4 of my evidence, the recommended wholesale deletion of the implementation methods is opposed.
- D. In relation to the requested amendments to the CVP provisions, the nature and reasons for the amendments are described in **paragraphs 3.5 to 3.7** of my evidence. The requested amendments include deleting Condition (i) of Rule 3.11.5.5, which specifies that Council are to be provided with full access to the property's Overseer file, as the most recent version of Overseer will not provide the information it is anticipated that Council are seeking. Also, a minor change to a matter of discretion attached to this rule is sought for the purpose of consistency, as Schedule 1 refers to FEP reviews, not audits. In addition, as the recommended CVP provisions now rely on a nitrogen surplus as a baseline, rather than a NRP, then all references to CVP in the NRP schedule (Schedule B) should be deleted,

unless the use of Overseer and a NRP in relation to CVP is retained within PC1 and Variation 1.

- Ε. In relation to the FEP schedule (Schedule 1) three specific amendments are requested as outlined in paragraph 5.7 of my evidence. The first relates to the FEP content requirements, whereby the farmers whose NRP exceeds the 75<sup>th</sup> percentile nitrogen leaching value, are required to farm in a manner that demonstrates clear and enduring commitments to the reduction of nitrogen losses, rather than requiring compliance with, in effect, a default allocation limit as I traversed in my hearing evidence for Block 2. The other two amendments relate to the Certified Farm Environment Planner (CFEP) review process, with the first amendment clarifying that the CFEP carrying out the review must be independent from the party who prepared the FEP. The second amendment deletes the requirement within the FEP schedule for a review, or audit, of an FEP prior to lodgement of a resource consent application. While requesting this deletion, I note that a condition attached to the restricted discretionary activity rules requires the FEP lodged with a resource consent application to have been approved by a CFEP. I consider that in this context, 'approval' reflects a completeness approval and does not include the assignment of an audit grade. Also, in my opinion, auditing, as part of a compliance mechanism, can only occur once a resource consent has been granted.
- F. In relation to the notified implementation methods, I consider that the retention of the methods that identify non-regulatory actions required to be undertaken by other parties, particularly Council, clearly articulates that the burden of achieving the objectives of PC1 and Variation 1 lies with a broad range of parties, not just the region's farming community. For this reason, subject to any revised wording that may be put forward by the Officers, I consider that Implementation Methods 3.11.4.1, 3.11.4.4, 3.11.4.5, 3.11.4.7, 3.11.4.9, 3.11.4.10 and 3.11.4.12 should be retained for the reasons outlined in **paragraph 4.6** of my evidence. I am comfortable with the recommended deletion of the remaining implementation methods for the reasons outlined in **paragraph 4.7**.
- G. Based on the evidence of Ms Wilkes, I have also requested amendments to the definition to CFEP as outlined in **paragraphs 6.10 to 6.15** of my evidence. The proposed amendments include requiring a CFEP to have a minimum of five years' farm system experience, rather than the three years now proposed. Also, I have

proposed an amendment, as an equivalent pathway, recognising that a CNMA would also have the relevant skills and experience to be a CFEP.

- H. In response to the section 42A Report's recommendation to use the concept of Good Farming Practice (GFP), rather than Good Management Practice (GMP), and to amend the definition accordingly, as outlined in paragraphs 6.16 to 6.23, I have also requested the retention of the concept of GMP throughout PC1 and Variation 1. I consider, based on Ms Wilkes' evidence and my own knowledge of regional plans, that GMP more appropriately provides the necessary flexibility and accommodates the potential for GMP principles to evolve over time. I have requested amendments to the definition to reflect these concepts as a component of GMP.
- For all other PC1 and Variation 1 provisions included in Block 3, I request the acceptance of the section 42A Report recommendations, including the deletion of Policy 7 (paragraphs 6.1 to 6.4) and the definition for BMP and five-year rolling average.
- J. The specific amendments to the section 42A Report recommendations, in relation to the matters which are the subject of this hearing, are contained in **Appendix A** of my evidence.

### 1. INTRODUCTION

#### Background – My Role for Ravensdown Limited

- 1.1 As previously outlined in my written statement (dated 14 February 2019) for Hearing Block 1 and my planning evidence (dated 3 May 2019) for Hearing Block 2, Ravensdown Limited (**Ravensdown**) lodged submissions and further submissions on the Proposed Waikato Regional Plan Change 1: Waikato and Waipā Catchments (**PC1**) and Variation 1 to the Proposed Waikato Regional Plan: Waikato and Waipā River Catchments (**Variation 1**), hereafter referred to as '**PC1 and Variation 1**'.
- 1.2 My qualifications and experience have been provided previously as part of my written statement and planning evidence for Hearing Blocks 1 and 2 respectively, and therefore I have not included this information within this statement of evidence.

#### **Code of Conduct**

1.3 Whilst this is a Council Hearing, I acknowledge that I have read and am familiar with the Environment Court's Code of Conduct for Expert Witnesses, contained in the Environment Court updated Practice Note 2014, and agree to comply with it. I confirm that the matters addressed within my evidence are within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

#### 2. SCOPE OF EVIDENCE

- 2.1 In relation to this Block 3 Hearing, I have reviewed the Block 3 section 42A Report, hereafter referred to as the '**section 42A Report**'. My review focussed on the section 42A Report's recommendations, including the technical and contextual matters associated with the recommendations, in relation to PC1 and Variation 1 provisions that Ravensdown submitted and further submitted on.
- 2.2 Based on my review, it was decided between myself and Ms Wilkes (Ravensdown's Environmental Policy Specialist), that company and planning

evidence traversing matters arising from Ravensdown's submission points should be presented at this hearing.

- 2.3 Ravensdown's company evidence, which I have read and considered in preparing my evidence, has been prepared by Ms Wilkes. Ms Wilkes' evidence addresses matters related to: the proposed nitrogen loss baseline for Commercial Vegetable Production (CVP); Schedule 1 provisions in relation to Farm Environment Plans (FEP); the appropriate minimum requirements for Certified Farm Environment Planners (CFEP); and, the merits of the term Good Management Practice (GMP) versus Good Farming Practice (GFP).
- 2.4 Based on my review of the section 42A Report, and given the matters raised in the evidence of Ms Wilkes, my evidence addresses the following matters:
  - (a) 'CVP Provisions', including 'Policy 3 Reducing diffuse discharges from commercial vegetable production systems', 'Policy 8 Prioritised implementation', relevant rules and the Nitrogen Reference Point (NRP) provisions of Schedule B as they relate to CVP, are discussed in Section 3.
  - (b) In Section 4, I discuss the notified 'Implementation Methods' and the reasons that it is important that a number of these methods are retained within PC1 and Variation 1.
  - (c) The provisions contained in 'Schedule 1 Requirements for Farm
     Environment Plans' are discussed in Section 5.
  - (d) Section 6 of my evidence covers 'Other Matters', specifically 'Policy
     7 Preparing for allocation in the future', 'Policy 15 –
     Whangamarino Wetland', and the definitions for 'Certified Farm
     Environment Planner' and 'Good Management Practice/s / Best
     Management Practice/s'.
  - (e) A '**Conclusion**' is contained in **Section 7**.
- 2.5 As I stated within my statement of evidence for Block 2, I have not undertaken a statutory plan assessment as I consider that the statutory framework contained in Section A.2 of the section 32 Report appropriately overviews relevant legislation, statutory planning documents and relevant objectives and

policies. I also acknowledge, as stated in the section 32 Report<sup>1</sup>, that the Vision and Strategy, which PC1 and Variation 1 gives effect to, takes precedence over the National Policy Statement for Freshwater Management (**NPS-FM**) where the NPS-FM is inconsistent with the Vision and Strategy (and where it establishes more stringent water quality conditions than the NPS-FM).

- 2.6 Also, as with my Block 2 evidence, given the broad approach adopted within the section 42A Report where the majority of submission points are not assessed individually, my evidence does not specifically traverse Ravensdown's submissions, further submissions and section 42A Report's recommendations. Rather, in preparing and structuring my evidence I have taken the section 42A Report's recommended amendments as the starting point for discussion. However, where appropriate, I have considered the issues raised in Ravensdown's submissions (and further submissions).
- 2.7 **Appendix B** of my evidence contains the provisions of PC1 and Variation 1, where Ravensdown was a submitter or further submitter<sup>2</sup>. Alongside these provisions I have identified, based on matters traversed in my evidence as well as the evidence of Ms Wilkes, whether the retention (acceptance) of the section 42A Report's recommendations are supported or further amendments are being sought.
- 2.8 Also, although not specifically discussed later in my evidence, I note that **Appendix B** requests the retention of a number of the section 42A Report's recommendations in relation to specific provisions. The retention of the section 42A Report's recommendations, as outlined below, is requested as I consider that they reflect an appropriate resource management approach and are generally consistent with the intent of Ravensdown's submissions and/or further submissions:
  - Retention of the 'Background and explanation' section of PC1 and Variation 1, including the amendments recommended in the section 42A Report under the 'Full achievement of the Vision and Strategy will be intergenerational' sub-heading.

<sup>&</sup>lt;sup>1</sup> Section A.2.3.2 (Vision and Strategy) of the section 32 Report.

<sup>&</sup>lt;sup>2</sup> Submission number references have also been provided in Appendix B.

- (b) Retention of the recommended amendments to 'Policy 9 Subcatchment (including edge of field) mitigation planning, coordination and funding'.
- (c) Retention of the recommended amendments to 'Policy 17 –
   Considering the wider context of the Vision and Strategy'.
- (d) Deletion, as recommended in the section 42A Report, of the definition of 'Five-year rolling average' as this concept is no longer a component of the FEP requirements as contained in the recommended Schedule 1 of PC1 and Variation 1.
- 2.9 Finally, I also wish to advise that I have briefly reviewed the Joint Witness Statement – Expert Conferencing – Table 3.11-1. However, as Ravensdown did not submit on the content of Table 3.11-1 my evidence does not comment further on this joint witness statement.

## 3. COMMERCIAL VEGETABLE PRODUCTION PROVISIONS

- In this section of my evidence I assess the CVP provisions of PC1 and Variation
   1 based on the recommendations contained in the section 42A Report<sup>3</sup>. I also consider the issue raised by Ms Wilkes in her evidence (paragraphs 3.1 to 3.5).
- 3.2 Ravensdown, in its submission points on the CVP provisions<sup>4</sup>, generally supported the intent of the approach provided for within PC1 and Variation 1, including maintaining the ability to rotate crops, but raised some key issues. These issues included:
  - Potential problems, in terms of consistency and reliability, with calculating a NRP over a 10 year period and then applying that concept within a rule framework;
  - (b) The lack of a clear mechanism for being able to measure diffuse discharge reductions from CVP; and

<sup>&</sup>lt;sup>3</sup> As assessed in Section C1 of the section 42A Report (paragraphs 14 to 123).

<sup>&</sup>lt;sup>4</sup> Key PC1 and Variation 1 provisions that relate to CVP and which Ravensdown submitted on include Policy 3 and the rules including Rule 3.11.5.5.

- (c) The proposed cap, at 2016 levels, of CVP land as outlined in part (b) of the Policy 3 (as notified) and Conditions (f) and (g) of Rule 3.11.5.5 (as notified). In relation to this issue, in a further submission on Policy 3<sup>5</sup> Ravensdown noted that the potential restriction on land use flexibility for CVP, an activity that produces food to feed people and which is under pressure due to urban growth, given the tools and regulatory methods contained in PC1 and Variation 1, does not necessarily provide for sustainable management of the region's resources.
- 3.3 The section 42A Report recommendations, which included consideration of the outcomes of discussions with key submitters and CVP conferencing, has resulted in various amendments to the CVP provisions that largely address the issues raised by Ravensdown. Therefore, in my opinion, based on my high-level understanding, from a planning perspective, of the needs and nature of CVP and its effects on the environment, I consider that the recommended CVP provisions are largely appropriate, in the context of the outcomes sought by PC1 and Variation 1, and therefore should be retained.
- 3.4 On this basis, I consider, as provided in **Appendix A** of my evidence, that the following CVP provisions in PC1 and Variation 1 should be retained as recommended in the section 42A Report:
  - (a) Policy 3 Reducing diffuse discharges from commercial vegetable production systems. The amended policy, as recommended in the section 42A Report, now aims to provide for CVP, while providing flexibility to rotate crops within sub-catchments provided industry-based mitigation measures are adopted to reduce diffuse discharges (i.e., including through the implementation of GFP, FEPs and relevant minimum standards). The policy also identifies the mechanism for establishing a baseline for CVP, based on a five year period up to 2016, for the maximum area of land use, nitrogen and phosphorus surplus (rather than a NRP as described in Schedule B) and sediment control measures in place over that period. The policy also identifies that resource consents for enterprises across multiple properties within a single sub-catchment are to be provided for.

<sup>&</sup>lt;sup>5</sup> Further submission on Sub. No. PC1-7780 (Pukekohe Vegetable Growers Association Inc.).

- (b) Policy 8 Prioritised Implementation. Subject to the amendments I requested as part of my Block 2 hearing evidence, I agree that CVP should be identified within this policy as one of the land use activities to be prioritised within PC1 and Variation 1 (i.e., the reduction of diffuse discharges from CVP, along with the priority areas set out in Table 3.11-2 and dairy farming properties with a NRP greater than the 75<sup>th</sup> percentile leaching value).
- (c) **Rules.** The recommended rule hierarchy for CVP is supported. Key components of the CVP rule hierarchy, as I understand it, are as follows:
  - Existing CVP is not a permitted activity (i.e., Rules 3.11.5.1A and 3.11.5.2 specifically exclude CVP) and requires resource consent as a restricted discretionary activity (Rule 3.11.5.5). The change to restricted discretionary activity status, rather than controlled activity as proposed under the notified version of the rule, is consistent with the activity status that now applies to farming activities under Rule 3.11.5.4, which I supported within my Block 2 hearing evidence.
  - Where existing CVP cannot comply with the conditions of Rule 3.11.5.5, a discretionary activity resource consent would need to be sought under Rule 3.11.5.6A on the basis that Condition (3) of Rule 3.11.5.4 was also not being complied with.
  - Outside of crop rotation activities provided for by a resource consent granted under Rule 3.11.5.5 (as reflected in Condition (e)), where more than 4.1ha of existing farmland is converted to CVP then a non-complying activity resource consent in accordance with Rule 3.11.5.7 is required (i.e., Condition (7) of Rule 3.11.5.4 is not complied with).
- 3.5 However, while I consider that the CVP provisions are generally appropriate, amendments to specific components of **Rule 3.11.5.5** are also required as outlined below:
  - (a) Condition (i). This condition specifies that Waikato Regional Council (Council) are to be provided with full access to Overseer, or other systems, for the activity authorised by this rule. As discussed in my Block 2 hearing evidence<sup>6</sup>, this condition should be deleted as the most recent

<sup>&</sup>lt;sup>6</sup> At paragraph 8.7(b) of my Block 2 hearing evidence.

version of Overseer will not provide the nature of information it is anticipated that Council are seeking through this condition.

- (b) Matter of discretion (i). This matter of discretion refers to the auditing of FEPs. While I agree that FEPs will be audited, as outlined in Part C of Schedule 1 of PC1 and Variation 1, the terminology used in the schedule is 'FEP review' not audit. For this reason, solely for the purpose of consistency, I have suggested that the word 'audit' under this matter of discretion is replaced with 'review'.
- 3.6 In relation to **Schedule B Nitrogen Reference Point**, as the section 42A report now recommends reliance on nitrogen surplus as a baseline for CVP, and given that Rule 3.11.5.5 also refers to the nitrogen surplus rather than the NRP, reference to the NRP in the context of CVP is no longer a component on PC1 and Variation 1. On this basis, all provisions of Schedule B that relate to CVP should be deleted (as I have noted in **Appendix A** of my evidence).
- 3.7 However, if the use of Overseer and a NRP for CVP is retained (including as an option for CVP), which Ravensdown would support, then the proposed CVP specific amendments in Clauses (b) and (f) of Schedule 1, as identified in Appendix C of the section 42A Report, should be retained. These amendments are considered to appropriately reflect that the CVP NRP is the average annual nitrogen leaching values during the period from 1 July 2011 to 30 June 2016.
- 3.8 The requested amendments to the CVP provisions of PC 1 and Variation 1 are provided in **Appendix A** of my evidence.

### 4. IMPLEMENTATION METHODS

4.1 The notified version of PC1 and Variation 1 contained Implementation Methods 3.11.4.1 to 3.11.4.12<sup>7</sup> to support the regulatory actions contained in PC1 and Variation 1 and to identify non-regulatory actions to be undertaken to achieve the outcomes sought by PC1 and Variation 1.

<sup>&</sup>lt;sup>7</sup> Section 67 of the Resource Management Act 1991 identifies that contents of regional plans, including provisions that must be included and provisions that may be included in regional plans. Section 67(2)(b) identifies that a regional plan may state, *"the methods, other than rules, for implementing the policies for the region"*.

- 4.2 Ravensdown, in its submissions and further submissions, generally supported the intent of the implementation methods and requested their retention (with amendments, for the purpose of clarity, requested in relation to a couple of the methods).
- 4.3 The section 42A Report's recommendation<sup>8</sup> is to delete the implementation methods in their entirety. The reasons for this recommendation are that the Officers consider that there is little value associated with these methods and it is questionable whether they will remain relevant over the 10 year plus life of PC1 and Variation 1.
- 4.4 While the deletion of all the implementation methods is recommended, the section 42A Report does proceed to assess each implementation method individually in Section C4.2. In relation to some of the methods, the section 42A Report outlines that if the Panel are of a mind to retain the method then appropriate revised wording can be provided in the final reply report.
- 4.5 I do not support the recommended wholesale deletion of PC1 and Variation 1's implementation methods. In my opinion, the successful delivery of the outcomes sought by PC1 and Variation 1 relies on a range of actions, not just the regulation incorporated into PC1 and Variation 1, to be effectively implemented by a range of parties, including Council.
- 4.6 The continued inclusion of implementation methods that identify non-regulatory actions that are required to be undertaken by other parties, including Council, more clearly articulates that the burden of achieving the objectives of PC1 and Variation 1 lies with a broad range of parties, not just the region's primary production community (i.e., by way of the regulatory framework that is contained within PC1 and Variation 1). For this reason, in my opinion, the following implementation methods should be retained in PC1 and Variation 1:
  - (a) Method 3.11.4.1 Working with others<sup>9</sup>. This method identifies that Council will work with stakeholders to implement PC1 and Variation 1. The section 42A Report recommends deletion of this method as it overlaps with statutory requirements and generally accepted good practice, and other than identifying a broad intent, appears to have little

<sup>&</sup>lt;sup>8</sup> Paragraphs 330 to 333 of the section 42A Report.

<sup>&</sup>lt;sup>9</sup> Assessed in paragraphs 334 to 339 of the section 42A Report.

value. I support the retention of this method as it articulates to the identified stakeholders, and the broader public, Council's obligations to endeavour to effectively implement the outcomes sought by PC1 and Variation 1 (i.e., rather than just enforcement of the regulation included in PC1 and Variation 1).

- Method 3.11.4.4 Lakes and Whangamarino Wetland<sup>10</sup>. This method (b) relates to the intent to prepare Lake Catchment Plans, including for Lake Waikare and Whangamarino Wetland, in consultation with the community. While the section 42A Report recommends the deletion of the all implementation methods, the section 42A Report also notes that this method, if retained by the Panel, provides more detail than Policy 14 (Lakes Freshwater Management Units). This method articulates priorities, areas of interest, the starting point for the development of such plans, the matters to be included in the plans, the need to support research and associated tools as well as restoration programmes and the need to develop 10-year water quality attribute targets (or limits and targets). The retention of this policy provides appropriate guidance for non-regulatory methods that seek to assist in managing and improving the water quality of the region's lakes. For this reason, this method should also be retained.
- (c) Method 3.11.4.5 Sub-catchment scale planning<sup>11</sup>. This method identifies that Council will work with parties to develop sub-catchment plans, where they do not already exist. This method supports the implementation of Policy 9. The development and implementation of sub-catchment plans, in conjunction with the regulatory framework incorporated into PC1 and Variation 1, will assist in achieving the resource management outcomes being sought by PC1 and Variation 1. For this reason, I consider that this method should be retained.
- (d) Method 3.11.4.7 Information needs to support any future allocation<sup>12</sup>. This method outlines that information and appropriate scientific research will need to be gathered to inform any future allocation regime. The section 42A Report recommends the deletion of this method

<sup>&</sup>lt;sup>10</sup> Assessed in paragraphs 351 to 358 of the section 42A Report.

<sup>&</sup>lt;sup>11</sup> Assessed in paragraphs 359 to 372 of the section 42A Report.

<sup>&</sup>lt;sup>12</sup> Assessed in paragraphs 380 to 389 of the section 42A Report.

as the periodic review of regional plans is required under the RMA, and in accordance with specific guidance provided for freshwater under the NPS-FM, the Visions and Strategy and the Waikato Regional Policy Statement (**RPS**). While I agreed that the RMA and associated planning documents do trigger such reviews, it is important any such review can rely on the availability of relevant information and scientific research (rather than the lack of such information). Therefore, the retention of this method, as well as Method 3.11.4.10 (as noted below), is important.

- (e) Method 3.11.4.9 Managing the effects of urban development<sup>13</sup>. This method identifies that Council will work with territorial authorities to implement the RPS, raise awareness of water quality issues in urban subcatchments and to identify solutions. The section 42A Report recommends deletion of this method as it overlaps with statutory requirements and generally accepted good practice, and other than identifying a broad intent, appears to have little value. In my opinion, the retention of this method is important as it identifies that urban communities, as well as rural communities, have a responsibility to ensure that the water quality objectives of PC1 and Variation 1 are met.
- (f) Method 3.11.4.10 Accounting systems and monitoring<sup>14</sup>. This method outlines that Council is to establish and operate an accounting system for the purposes of monitoring the Freshwater Management Units. The section 42A Report recommends deletion of this method as it overlaps with statutory requirements (including under the NPS-FM) and generally accepted good practice, and other than identifying a broad intent, appears to have little value. While this method may reflect specific policy requirements of the NPS-FM, in my opinion, the retention of this method is appropriate in that it clearly articulates the monitoring requirements for the Waikato and Wāipa catchments which Council are to establish and operate. The information gathered as part of this process will be important in assessing whether or not the PC1 and Variation 1 objectives are being met.

<sup>&</sup>lt;sup>13</sup> Assessed in paragraphs 401 to 411 of the section 42A Report.

<sup>&</sup>lt;sup>14</sup> Assessed in paragraphs 412 to 420 of the section 42A Report.

- (g) Method 3.11.4.12 Support research and dissemination of good practice guidelines to reduce diffuse discharges<sup>15</sup>. The section 42A Report identifies that this method supports the implementation of Policies 1 and 2 and the associated FEP framework and that if the Panel were to retain this method it would need to be amended to reflect the final position on these provisions. In my opinion, the intent of this method should be retained, as good practice, including in relation to approaches aimed at reducing the diffuse discharges of contaminants, is not static and will continue to evolve over time. For this reason, identification within this method, that Council will support research into 'good practice' approaches and disseminate guidelines where they are developed is appropriate, particularly given the use of GMP (or GFP) within PC1 and Variation 1.
- 4.7 Given that the Officers (as discussed above in **paragraph 4.4**) have offered to provide the Panel with revised wording where methods are to be retained, I request that the intent and outcomes reflected in the notified implementation methods are retained, where appropriate, within any revised methods (as noted in **Appendix A** of my evidence).
- 4.8 While I consider that the implementation methods listed above in paragraph4.6 should be retained (subject to appropriate amendments), I agree with the recommended deletion of the following implementation methods:
  - (a) Implementation Method 3.11.4.2 Certified Industry Scheme<sup>16</sup>. If Certified Industry, or Sector, Schemes are retained in PC1 and Variation 1 (as discussed in my evidence for the Block 2 Hearing), the framework for such schemes will be appropriately described within the policies, rules and schedule of PC1 and Variation 1.
  - (b) Implementation Method 3.11.4.3 Farm Environment Plans<sup>17</sup>. As discussed in the section 42A Report, I agree that this implementation method is largely subsumed into the revised FEP provisions of PC1 and Variation 1.

<sup>&</sup>lt;sup>15</sup> Assessed in paragraphs 430 to 438 of the section 42A Report.

<sup>&</sup>lt;sup>16</sup> Paragraph 340 of the section 42A Report.

<sup>&</sup>lt;sup>17</sup> Assessed in paragraphs 341 to 350 of the section 42A Report.

- (c) Implementation Method 3.11.4.6 Funding and implementation<sup>18</sup>. The method, as notified, is not necessary as it reflects a broad statement of intent in terms of funding PC1 and Variation 1. Rather obligations to fund such processes are a requirement of Council's obligations under the RMA and the Local Government Act 2002.
- (d) Implementation Method 3.11.4.8 Reviewing Chapter 3.11 and development of an allocation framework for the next Regional Plan<sup>19</sup>. My amended Policy 4 (as addressed within my evidence for Hearing Block 2 (Section 5 of my evidence)) identifies that plan changes may be required in the future in order for Objective 1 of PC1 and Variation 1 to be met. In my opinion, the retention of this policy was an important means of identifying to the community that further change may occur in the future as a result of plan change processes. Therefore, while I support the retention of an amended policy, I consider that repeating this information within this implementation method is not necessary given that the RMA requires periodic reviews of regional plans.
- (e) Implementation Method 3.11.4.11 Monitoring and evaluation of the implementation of Chapter 3.11<sup>20</sup>. As outlined in the section 42A Report, this implementation method reflects regional plan monitoring reviews, including of effectiveness and efficiency, required under the RMA.

### 5. SCHEDULE 1 – FARM ENVIRONMENT PLANS

In this section of my evidence I assess the recommended FEP schedule (Schedule 1) arising out of the recommendations of the section 42A Report<sup>21</sup>.
 In providing my comments, I have also considered the matters raised by Ms Wilkes in her evidence (paragraphs 3.6 to 3.14).

<sup>&</sup>lt;sup>18</sup> Assessed in paragraphs 373 to 379 of the section 42A Report.

<sup>&</sup>lt;sup>19</sup> Assessed in paragraphs 390 to 400 of the section 42A Report.

<sup>&</sup>lt;sup>20</sup> Assessed in paragraphs 421 to 429 of the section 42A Report.

<sup>&</sup>lt;sup>21</sup> Assessed in Section C3 (paragraphs 178 to 285) of the section 42A Report, including the report titled "Proposed Revisions to Schedule 1 to incorporate Good Farming Practice into Farm Environment Plans" prepared by Rob Dragten Consulting 2019 and dated 12 June 2019 and provided at pp. 52 to 77 of the section 42A Report.

- 5.2 Ravensdown, in its submission<sup>22</sup>, supported the overall intent of Schedule 1 while noting that FEP requirements varied slightly from the templates and/or requirements of other councils. Ravensdown requested that the intent of the schedule, which includes the requirement for farming activities to prepare and implement FEPs, be retained while also requesting a number of amendments to Schedule 1.
- 5.3 Ravensdown requested amendments as a result of a number of technical matters related to nutrient budgeting and appropriately providing for CVP. I consider that these matters are no longer an issue given the significant amendments to the schedule and therefore I do not discuss them further.
- 5.4 However, in its submission Ravensdown also stated that, in advance of the development of an allocation regime, it opposed the requirement for farming activities that exceeded the 75<sup>th</sup> percentile nitrogen leaching value to reduce to diffuse nitrogen discharges to meet this value by 2026 (Clause 5(b) of the notified schedule). Given this opposition, Ravensdown requested the following amendment to Clause 5(b):

Where the Nitrogen Reference Point exceeds the 75th percentile nitrogen leaching value, actions, timeframes and other measures to ensure the diffuse <u>loss</u> discharge of nitrogen is reduced <u>using best practicable</u> options in keeping with industry agreed good management practice, prior to a nitrogen loss allocation system being decided and introduced 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.

- 5.5 I consider that the above allocation issue, as already traversed in my hearing evidence for Block 2, remains an issue as the concept is still retained within the amended schedule (refer to Part B and Objective 3 of the schedule). Accordingly, in line with my recommended amendments to Policy 1 (refer to Section 4 and Appendix B of my hearing evidence for Block 2), as outlined below (paragraph 5.7(a)), amendments to the relevant principle under Objective 3 in Part B of Schedule 1.
- 5.6 In my opinion the section 42A Report's recommended Schedule 1 will support the delivery of the regulatory framework now incorporated into PC1 and

<sup>&</sup>lt;sup>22</sup> Sub. No's. PC1-10174 and PC1-12502.

Variation 1. While there are still various support components that need to be developed and/or implemented (i.e., mechanisms for the digital submission of FEPs, certification of reviewers etc), the schedule clearly outlines: how FEPs are to be submitted (Part A); the FEP content requirements including the aims (i.e., objectives) of the FEP and various supporting principles to achieve the objectives (Part B); the review process (Part C); and, guidance on how the FEP can be amended or changed (Part D). As a Planner, I understand the requirements of Schedule 1 and can envisage how the process described in the schedule will work.

- 5.7 For the above reason, I support the retention of Schedule 1 as recommended in the section 42A Report, subject to the following amendments:
  - (a) Part B - FEP Content, Objective 3, Principle 9. As outlined above (paragraphs 5.4 and 5.5), within the framework of PC1 and Variation 1, the 75<sup>th</sup> percentile nitrogen leaching value is a tool used to identify priorities (amongst others) for the application of regulatory control over farming activities in the region. The regulatory control for farms that exceed this value entails the need to seek a resource consent by 1 September 2021, or 6 months after PC1 and Variation 1 becomes operative, and thus the associated need to have a FEP and to implement GFP (or GMP). Under PC1 and Variation 1, there is no nitrogen allocation regime in place and on this basis the 75<sup>th</sup> percentile leaching value should not be used as a default allocation limit. However, as discussed in my hearing evidence for Block 2 in relation to Policy 1, I consider that it is appropriate that farms that exceed the 75<sup>th</sup> percentile nitrogen leaching value should be required to demonstrate, within its FEP, actions and measures, with specific timeframes, real and enduring nitrogen loss reductions.

#### Or, where the property's NRP is > than the 75<sup>th</sup> percentile

- 9. Farm in a manner that <u>demonstrates clear and enduring</u> <u>commitments to ensuring reductions in does not result in</u> farm nitrogen losses <del>exceeding the 75th%ile for the FMU</del>; ...
- (b) Part C FEP Review Requirements.

In her evidence, Ms Wilkes (paragraphs 3.9 and 3.10) identifies that it is not necessarily clear that the CFEP undertaking a review of FEP will be independent from any party that prepared the FEP. I agree with Ms Wilkes that it is important that the CFEP is independent. Although, it seems that Council's intent is for CFEPs, in reviewing FEPs, to be independent, in my opinion this intent is not clearly identified. Therefore, I propose an amendment to Part C of the schedule, to identify that independent review is a requirement when a CFEP reviews a FEP. The proposed amendment is as follows:

The review shall be undertaken by a Certified Farm Environment Planner who holds a reviewing endorsement (issued by WRC) <u>and who is independent of any Certified</u> <u>Farm Environment Planner involved in the preparation of the</u> <u>FEP.</u>, and <u>FEP reviews</u> must be undertaken in accordance with the review process set out the Waikato Regional Councils FEP Independent Review manual.

Ms Wilkes, in her evidence (paragraphs 3.12 to 3.14), also outlines that reviewing, or rather auditing and assigning a grade to a FEP, prior to lodging the resource consent application for FEPs, serves no constructive purpose and has the potential to disenfranchise farmers. Having considered the evidence of Ms Wilkes, I am comfortable with a review of FEPs being carried out by CFEPs prior to an application being lodged, provided the review is solely for the purpose of assessing completeness of the FEP (i.e., the review is not an audit where a grade is applied). In this context, I note that a condition attached to the restricted discretionary activity rules (i.e., Condition (4) of Rule 3.11.5.4 and Condition (h) of Rule 3.11.5.5) requires that the FEP lodged with a resource consent application has to have been approved by a CFEP. I consider that in this context 'approval' reflects a completeness approval, which will assist Council in its assessment of the application, but does not include the assignment of an audit grade. In relation to formal auditing of FEPs (resulting in an audit grade being assigned), I consider that this is only appropriate after a resource consent has

been granted as it is at the point in time that the FEP forms part of a resource consent and thus there is a compliance mechanism in place. Therefore, in my opinion, Clause (1) in Part C of Schedule 1, which identifies that a review of FEPs by CFEPs is required prior to the lodgement of a resource consent, is not appropriate and this provision should be deleted.

5.8 The specific requested amendments to Schedule 1 of PC 1 and Variation 1 are provided in **Appendix A** of my evidence.

### 6. OTHER MATTERS

#### Policy 7 – Preparing for allocation in the future

- 6.1 Policy 7, as notified, identifies that information is to be collected and research undertaken in order to prepare for further diffuse discharge reductions and potential allocation regimes in the future that will be required by subsequent regional plans (or plan changes).
- 6.2 Ravensdown, in its submission<sup>23</sup>, supported the intent of the policy while identifying that the policy was poorly worded and constructed and cautioned against limiting farming practice innovation and flexibility based on the current perception of land use suitability without links to an effects based measure or outcome. Ravensdown therefore requested various amendments to the policy to address these issues.
- 6.3 In response to the various submissions on this policy and the issues raised<sup>24</sup>, the section 42A Report recommends<sup>25</sup> the deletion of the policy, rather than amending the policy to reflect potential other allocation frameworks or to make the policy more general.

<sup>&</sup>lt;sup>23</sup> Submission point PC1-10118.

<sup>&</sup>lt;sup>24</sup> The section 42A Report (paragraph 443) identifies that the submissions could be grouped into the following recurring themes: uncertainty for the future and economic implications; future allocation based on a grandparenting approach and the use of Overseer; 'everyone should be treated that same' (Māori land); and, appropriateness of the provision of the policy.

<sup>&</sup>lt;sup>25</sup> Policy 7 submissions are assessed in paragraphs 439 to 483 of the section 42A Report, with the Officers' analysis of the submissions contained in paragraphs 476 to 483.

6.4 I agree that the policy should be deleted as the need for, or nature of, any future regional plans or plan changes to achieve the Vision and Strategy, if required, should not be constrained or restricted by a PC1 and Variation 1 policy.

#### Policy 15 – Whangamarino Wetland

- 6.5 Policy 15, as notified, seeks to protect and to make progress towards restoration of the wetland by reducing diffuse discharges that flow into the wetland.
- 6.6 Ravensdown, in its submission<sup>26</sup>, supported the policy but requested two amendments to ensure that the policy was clear in terms of its intent. The requested amendments sought to: clarify that restoration (not protection and restoration) was the aim of the policy; and, to address the potential lack of clarity for resource users when trying to identify the sub-catchments that flow into the wetland (i.e., the specific catchments are not identified within maps or by way of description within PC1 and Variation 1).
- 6.7 The section 42A Report recommends the retention of Policy 15 as notified<sup>27</sup>. I am comfortable with this recommendation and therefore, as outlined in **Appendix A** of my evidence, propose no further amendments to the policy.
- 6.8 I wanted to take this opportunity to clarify my intention in relation to the subcatchment component of Ravensdown's submission. The section 42A Report, in rejecting Ravensdown's submission, stated that they did not agree with the request to focus on the wetland itself and not the wetland's sub-catchments<sup>28</sup>.
- 6.9 In the context of this policy, I agree with the recommendations of the section 42A Report. However, for ease of identification for all parties who will be affected by PC1 and Variation 1, which will include parties from outside the region, it would be helpful if PC1 and Variation 1 identifies the sub-catchments that are affected by this policy (i.e., potentially by way of a sub-heading or note included in Table 3.11-1 of PC1 and Variation 1).

### 'Certified Farm Environment Planner' Definition

<sup>&</sup>lt;sup>26</sup> Submission point V1PC1-273.

<sup>&</sup>lt;sup>27</sup> As discussed in paragraphs 494 to 518 of the section 42A Report.

<sup>&</sup>lt;sup>28</sup> Paragraph 509 of the section 42A Report.

- 6.10 As discussed in **Section 5** of my evidence, under PC1 and Variation 1, as I understand it, a CFEP can prepare FEPs and is also responsible for the independent review, or auditing, of FEPs.
- 6.11 In relation to the minimum requirements that a CFEP must meet, the notified version of the CFEP definition identified that a CFEP: must be certified by Council (and will be listed on Council's webpage); have at least five years' experience in various farm systems; have advanced training or a tertiary qualification in sustainable nutrient management; and, have experience in soil conservation and sediment management.
- 6.12 Ravensdown, in its submission<sup>29</sup>, requested various amendments to the CFEP definition including the requirement that they must have a certificate in the Advanced Sustainable Nutrient Management in New Zealand Agriculture Course (**ASNM Course**), or equivalent, and must have at least five years' work experience in a land use / farm advisory role.
- 6.13 The section 42A Report<sup>30</sup> recommends a number of changes to the definition, including a reduction to three years (from five years) for farm system experience, completion of the ASNM Course (as requested by Ravensdown and now included in the definition) or equivalent training or qualification and the need to agree to follow relevant Council procedures and guidelines when preparing or approving (reviewing) an FEP.
- 6.14 Ms Wilkes, in her evidence (paragraphs 3.15 to 3.18), discusses the section 42A Report recommendations in relation to this definition and outlines Ravensdown's opinion as to the minimum requirements for a CFEP. Ms Wilkes outlines that at a minimum, completion of the ASNM Course (as now recommended) and five years' farm system experience, rather than the three now proposed, is appropriate. Ms Wilkes, in her evidence, also outlines that Certified Nutrient Management Advisors (**CNMA**) will also possess the skills and experience to act as a CFEP.
- 6.15 Given the guidance provided by Ms Wilkes, amendment to the CFEP definition are proposed as identified in **Appendix A** of my evidence. The amendments include: the need for five years, rather than three years, farm system

<sup>&</sup>lt;sup>29</sup> Sub. No. PC1-10187.

<sup>&</sup>lt;sup>30</sup> Assessed in paragraphs 233 to 249 of the section 42A Report.

experience (under Clause (a) of the definition); and, inclusion of CNMA under the definition as an equivalent pathway to becoming an CFEP (new Clause (d)).

#### 'Good Management Practice/s' / 'Best Management Practice/s' Definitions

- 6.16 The notified version of PC1 and Variation 1 used, within its provisions, the concepts of GMP and Best Management Practice (**BMP**) and provided definitions for both terms.
- 6.17 Ravensdown, in its submissions<sup>31</sup>, outlined its support for the concept of GMP, as outlined in the 'Industry-agreed Good Management Practices relation to water quality' (September 2015), and requested that the definition be amended to refer to this document. Ravensdown also requested that as GMP is a concept that is well recognised and used widely in other regional plans in relation to farming activities, that the use of BMP and associated definition be deleted from PC1 and Variation 1.
- 6.18 Although not specifically stated within Ravensdown's submission, while GMP is a concept that may have been introduced through the 2015 document, it is recognised that a broader application of GMP concepts or principles has developed in New Zealand over time.
- 6.19 In relation to BMP, the section 42A Report<sup>32</sup> recommends, as a preference the deletion of BMP as the Officers prefer the concept of GFP (or GMP) and relevant provisions of PC1 and Variation 1 have been amended accordingly. The section 42A Report also suggests that if the concept of BMP is retained, that the definition should be amended to refer to 'Best Farming Practice' (BFP) where BFP relates to mitigation measures beyond GFP. In my opinion, the inclusion of BMP (or BFP) in PC1 and Variation 1 is not required and should be deleted in its entirety. The main reason for reaching this conclusion, is that GMP in practice will not be static and will continue to evolve in a manner that ensures diffuse discharges from farming activities are managed and reduced or minimised on an ongoing basis.
- 6.20 In relation to GMP, the section 42A Report<sup>33</sup> recommends that the definition be amended to GFP, and this term used throughout PC1 and Variation. The

<sup>&</sup>lt;sup>31</sup> Sub. No. PC1-10186.

<sup>&</sup>lt;sup>32</sup> Assessed in paragraphs 216 to 232 of the section 42A Report.

<sup>&</sup>lt;sup>33</sup> Assessed in paragraphs 271 to 285 of the section 42A Report.

reason for this recommendation is that there has been a shift to the GFP terminology, principally as a result of the 2018 release of the 'Good Farming Practice – Action Plan for Water Quality 2018'. Ms Wilkes, in her evidence (paragraphs 3.19 to 3.24) discusses GMP and GFP and states that Ravensdown prefers the continued use of GMP, rather than GFP. Ms Wilkes outlines that the reasons for Ravensdown's preference is that there is a lack of 'specificity;' in the 2018 document such that the implementation of GFP may not result in improved environmental outcomes. In contrast, GMP, based on the 2015 industry-agreed document, is underpinned by way of reference, by a range of more detailed guidance documents which are regularly reviewed and updated to reflect the evolving nature of GMP.

- 6.21 Based on Ms Wilkes evidence and also my understanding of GMP, I support the continued use of GMP, rather than GFP, throughout PC1 and Variation 1. In my opinion, GMP, as accommodated within a number of regional plans throughout the country, is a resource management tool where the actions or practices required, are not static. Rather they reflect a flexible approach, in terms of identifying and applying the more relevant action or practice to an onsite situation, while also reflecting the need to evolve over time, in order to ensure that the aim of implementing such practices are being achieved (i.e., the need to continually improve). In the context of farming under PC1 and Variation 1, the aim of GMP is to ensure that the risks of contaminants entering waterbodies are managed, reduced and minimised (as reflected in the definition).
- 6.22 I consider that it is important that flexibility and a range of options in terms of potential GMP approaches is accommodated within the definition, as well as the potential need for practices to evolve and change over time in order to achieve continual improvement. While at the moment this may mean utilising the guidance provided within the 2015 GMP document, and associated references, as well as the 2018 GFP Action Plan, in the future new guidance may be more appropriate.
- 6.23 Based on the considerations outlined within this section of my evidence, I recommend the following amendments (also provided in Appendix A) to the recommended GFP definition:

Good Farming Management Practice/s: For the purposes of Chapter 3.11, means practices and actions undertaken on a property or enterprise that evolve over time and result in continuous improvement and which manage, reduce or minimise the risk of contaminants entering a water body.

Documents describing Good Management Practices include, but are not limited to:

- Industry-agreed Good Management Practices relating to water quality (September 2015), and any subsequent updates.
- Good Farming Practice Action Plan for Water Quality 2018.

# 7. CONCLUSION

- 7.1 The section 42A Report recommendations in the provisions which Ravensdown submitted on, are generally supported, as the relevant provisions reflect an appropriate approach in the context of the objectives, and associated resource management framework, now accommodated in PC1 and Variation 1. However, there are some aspects of these provisions where further amendments are required.
- 7.2 The amendments include changes to the CVP rule (Rule 3.11.5.5) to reflect that Council access to Overseer is no longer feasible and that the FEP is reviewed not audited. In addition, given the proposed use of a nitrogen surplus, rather then NRP, all references to CVP in Schedule B should be removed unless the use of Overseer and a NRP in relation to CVP is retained within PC1 and Variation 1.
- 7.3 Three specific amendments to the FEP schedule are also considered necessary. The first amendment aims to address the issue associated with the recommended adoption, as I see it, of a 'default nitrogen allocation limit' for farming, as traversed in my hearing evidence for Block 2. The other amendments relate to the CFEP review process.
- 7.4 The recommended wholesale deletion of the implementation methods is opposed. I consider that the non-regulatory methods that place obligations on other parties, beyond the farming community, should be generally retained as

a reflection that improvements to water quality rely on actions by a range of parties.

- 7.5 Amendments to the definition to CFEP and GMP are requested, as well as use of GMP, rather than GFP, throughout PC1 and Variation 1. For other PC1 and Variation 1 provisions included in Block 3, I request the acceptance of the section 42A Report recommendations, including the deletion of Policy 7 and the definition for BMP and five-year rolling average.
- 7.6 The specific amendments to the section 42A Report recommendations, in relation to the matters which are the subject of this hearing, are contained in **Appendix A** of my evidence.

a Jaylor

Carmen Taylor 5 July 2019

### **APPENDIX A – SUMMARY OF REQUESTED AMENDMENTS**

For ease of identification in relation to the requested amendments to the provisions of PC1 and Variation 1 (as outlined in the table below), a 'clean version' of the section 42A Report's recommendations are contained in the following table with the subsequent tracked changes (additions are shown in <u>underlined text</u> and deletions shown in <del>strikethrough text</del>) identifying the requested amendments discussed in my evidence.

PC1 and Variation 1 Provision	Requested Amendments
PC1 and Variation 1 Provision Background and explanation (Sub. No's. PC1-10202 and V1PC1- 268) (Further Sub. No's PC1-7666 and PC1-2980)	<ul> <li>As discussed in paragraph 2.8(a) of my evidence, retain all of the section 42A Report's recommended amendments to the 'Background and explanation', including the proposed amendments from the 4<sup>th</sup> paragraph onwards under the heading 'Full achievement of the Vision and Strategy will be intergenerational' as follows:</li> <li>The approach to reducing contaminant losses from pastoral farm land implemented by Chapter 3.11 requires: <ul> <li>stock exclusion from water bodies as a priority mitigation action.</li> <li>Farm Environment Plans (including those for commercial vegetable producers) that ensure industry-specific good farming practice, with monitoring and auditing to ensure outcomes are being achieved.</li> <li>a property scale nitrogen reference point to be established by modelling current nutrient losses from each property, with no property being allowed to increase in the future and higher dischargers being required to reduce their nutrient losses.</li> <li>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</li> <li>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.</li> </ul> </li> </ul>
	There are a number of existing provisions, including rules, in the Waikato Regional Plan that will continue to apply for point source discharges.

PC1 and Variation 1 Provision	Requested Amendments
	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.
	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.
Section 3.11.3 - Policies	
Policy 3	As discussed in paragraph 3.4(a) of my evidence, retain the section 42A Report's recommended
(Sub. No. PC1-10104)	policy, subject to the amended numbering proposed, as follows:
(Further Sub. No. PC1-7780)	Policy 3: Reducing diffuse discharges from commercial vegetable production systems
	Provide for commercial vegetable production while reducing diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens by:
	<ul> <li>Enabling commercial vegetable production activities, including the flexibility to undertake crop rotations on changing parcels of land within sub-catchments, while adopting sector- based initiatives and other mitigation measures to progressively reduce losses of nitrogen, phosphorus, sediment and microbial pathogens;</li> </ul>
	be. 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;

PC1 and Variation 1 Provision	Requested Amendments	
	<u>c</u> d. 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; and	
	<u>d</u> h. Providing for resource consents for enterprises to encompass multiple properties within a single sub-catchment, provided that:	
	(i) a to <del>d</del> <u>c</u> 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.	
Policy 7	As discussed in paragraphs 6.1 to 6.4 of my evidence, delete this policy (Policy 7 – Preparing	
(Sub. No. PC1-10118)	for allocation in the future) as recommended in the section 42A Report.	
Policy 8 (Sub. No's. PC1-10119, V1PC1-270 and V1PC1-1341)	As discussed in paragraph 3.4(b) of my evidence, subject to the amendments requested in my Hearing Block 2 evidence (refer to Appendix B of my Hearing Block 2 evidence), include <b>'commercial vegetable production activities</b> ' in this policy as recommended in the section 42A Report.	
<b>Policy 9</b> (Sub. No. PC1-10120)	As discussed in paragraph 2.8(b) of my evidence, retain the section 42A Report's recommended policy as follows:	
	Policy 9: Sub-catchment (including edge of field) mitigation planning, co-ordination and funding	
	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:	

PC1 and Variation 1 Provision	Requested Amendments
	a. Engaging early with tangata whenua and with landowners, communities, local authorities 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
	<ul> <li>Encouraging cost-effective mitigations where they have the biggest effect on improving water quality; and</li> </ul>
	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; and
	e. Using sub-catchment monitoring information to measure progress toward the freshwater objectives across the whole of each FMU.
<b>Policy 15</b> (Sub. No. V1PC1-273)	As discussed in paragraphs 6.5 to 6.9 of my evidence, retain the section 42A Report's recommended policy as follows:
	Policy 15: Whangamarino Wetland
	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.
<b>Policy 17</b> (Sub. No. PC1-10123)	As discussed in paragraph 2.8(c) of my evidence, retain the section 42A Report's recommended policy as follows:

PC1 and Variation 1 Provision	Requested Amendments
	Policy 17: Considering the wider context of the Vision and Strategy
	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, 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
Section 3.11.4 – Implementation m	ethods
Method 3.11.4.1	As discussed in paragraphs 4.1 to 4.7 of my evidence, reject the section 42A Report's
(Sub No. PC1-10124)	recommendation to delete this method and retain the method, subject to any revisions proposed by the Officers provided the revisions retain the intent and outcomes reflected in the notified implementation method as follows:
	Methods 3.11.4.1: Working with others
	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.
Method 3.11.4.2	As discussed in paragraph 4.8(a) of my evidence, delete 'Method 3.11.4.2 – Certified Industry
(Sub No. PC1-10125)	Scheme' as recommended in the section 42A Report.
Method 3.11.4.3	As discussed in paragraph 4.8(b) of my evidence, delete 'Method 3.11.4.3 – Farm Environment
(Sub No. PC1-10126)	Plans' as recommended in the section 42A Report.
(Further Sub No's. PC1-9831)	

PC1 and Variation 1 Provision	Requested Amendments
Method 3.11.4.4 (Sub No's. PC1-10127, V1PC1-276 and V1PC1-1342)	As discussed in paragraphs 4.1 to 4.7 of my evidence, reject the section 42A Report's recommendation to delete this method and retain the method, subject to any revisions proposed by the Officers provided the revisions retain the intent and outcomes reflected in the notified implementation method as follows:
	Method 3.11.4.4: Lakes and Whangamarino Wetland
	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.
	<ul> <li><u>b.</u> Prepare and implement Lake Catchment Plans with community involvement which include:         <ol> <li>A vision for the lake developed in consultation with the community.</li> <li><u>ii</u>. Description of the desired state of lake and recognition of the challenges (e.g. costs) and opportunities (e.g. benefits) in achieving it.</li> <li><u>iii</u>. 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.</li> <li><u>iv</u>. Community engagement in defining actions that will move the lake towards its desired state.</li> <li><u>v</u>. Responsibility for achieving the agreed actions and expected timeframes, developed in consultation with those who will be undertaking the work.</li> <li><u>vi</u>. A monitoring regime that will provide evidence of the implementation of the defined actions and any changes in the state of the lake.</li> </ol></li></ul>
	<u>c.</u> 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).
	<u>d.</u> Work towards managing the presence of pest weeds and fish in the shallow lakes and connected lowland rivers area, including Whangamarino Wetland.

PC1 and Variation 1 Provision	Requested Amendments
	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).
	<u>f.</u> 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.
	<u>g. Develop a set of 10-year water quality attribute^ targets^ for each lake Freshwater</u> <u>Management Unit^.</u>
<b>Method 3.11.4.5</b> (Sub No. PC1-10128)	As discussed in paragraphs 4.1 to 4.7 of my evidence, reject the section 42A Report's recommendation to delete this method and retain the method, subject to any revisions proposed by the Officers provided the revisions retain the intent and outcomes reflected in the notified implementation method as follows:
	Method 3.11.4.5: Sub-catchment scale planning
	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.

PC1 and Variation 1 Provision	Requested Amendments
	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.
	<u>f.</u> 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.
Method 3.11.4.6 (Sub No. PC1-10129)	As discussed in paragraph 4.8(c) of my evidence, delete ' <b>Method 3.11.4.6 – Funding and implementation</b> ' as recommended in the section 42A Report.
Method 3.11.4.7 (Sub No. PC1-10130)	As discussed in paragraphs 4.1 to 4.7 of my evidence, reject the section 42A Report's recommendation to delete this method and retain the method, subject to any revisions proposed by the Officers provided the revisions retain the intent and outcomes reflected in the notified implementation method as follows:
	Method 3.11.4.7: Information needs to support any future allocation
	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.
	<ul> <li><u>b. Researching:</u> <ul> <li><u>i. The quantum of contaminants that can be discharged at a sub-catchment and</u> <u>Freshwater Management Unit^ scale while meeting the Table 3.11-1 water quality</u> <u>attribute^ targets^.</u> <u>ii. Methods to categorise and define 'land suitability'.</u> </li> </ul></li></ul>

PC1 and Variation 1 Provision	Requested Amendments
	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^
Method 3.11.4.8 (Further Sub No. PC1-10241)	As discussed in paragraphs 4.8(d) of my evidence, delete 'Method 3.11.4.8 – Reviewing Chapter 3.11 and developing an allocation framework for the next Regional Plan' as recommended in the section 42A Report.
Method 3.11.4.9 (Further Sub No. PC1-10112)	As discussed in paragraphs 4.1 to 4.7 of my evidence, reject the section 42A Report's recommendation to delete this method and retain the method, subject to any revisions proposed by the Officers provided the revisions retain the intent and outcomes reflected in the notified implementation method as follows:
	Method 3.11.4.9: Managing the effects of urban development
	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.
	<u>b.</u> 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.
<b>Method 3.11.4.10</b> (Sub No. PC1-10133)	As discussed in paragraphs 4.1 to 4.7 of my evidence, reject the section 42A Report's recommendation to delete this method and retain the method, subject to any revisions proposed by the Officers provided the revisions retain the intent and outcomes reflected in the notified implementation method as follows:
	Method 3.11.4.10: Accounting system and monitoring
	Waikato Regional Council will establish and operate a publicly available accounting system and monitoring in each Freshwater Management Unit^, including:
	a. <u>Collecting information on nitrogen, phosphorus, sediment and microbial pathogen levels</u> in the respective fresh water bodies in each Freshwater Management Unit^ from:

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	<ul> <li><u>Council's existing river monitoring network; and</u></li> <li><u>Sub-catchments that are currently unrepresented in the existing monitoring network;</u> <u>and</u></li> <li><u>Lake Freshwater Management Units^.</u></li> </ul>
	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
	<u>d.</u> An information and accounting system for the diffuse discharges from properties and <u>enterprises that supports the management of nitrogen, phosphorus, sediment and</u> <u>microbial pathogens diffuse discharges at an enterprise or property scale.</u>
Method 3.11.4.11 (Further Sub No. PC1-10613)	As discussed in paragraph 4.8(e) of my evidence, delete 'Method 3.11.4.11 – Monitoring and evaluation of the implementation of Chapter 3.11' as recommended in the section 42A Report.
Method 3.11.4.12 (Sub No. PC1-10135)	As discussed in paragraphs 4.1 to 4.7 of my evidence, reject the section 42A Report's recommendation to delete this method and retain the method, subject to any revisions proposed by the Officers provided the revisions retain the intent and outcomes reflected in the notified implementation method as follows:
	<u>Methods 3.11.4.12: Support research and dissemination of good practice guidelines to</u> reduce diffuse discharges
	Waikato Regional Council will:
	<u>a. Develop and disseminate good management practice guidelines for reducing the diffuse</u> <u>discharges of nitrogen, phosphorus, sediment and microbial pathogens; and</u>
	b. Support research into methods for reducing diffuse discharges of contaminants to water.
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Section 3.11.5 - Rules	
'Commercial Vegetable Production' – Various Amendments to Rules	As discussed in paragraph 3.4(c) of my evidence, retain the section 42A Report's recommended amendments to include ' <i>any farming activity to Commercial Vegetable Production</i> ' in the change of use of land conditions of <b>Rules 3.11.5.1A</b> , <b>3.11.5.2A</b> (if included), <b>3.11.5.3</b> (if included) and <b>3.11.5.4</b> as follows:
	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 Commercial Vegetable Production.
	<b>AND</b> , retain the section 42A Report's recommended amendments to include a new condition in Rule 3.11.5.4 as follows:
	No commercial vegetable production occurs.
Rule 3.11.5.5 (Sub. No's. PC1-10154, V1PC1-281 and V1PC1-1346)	As discussed in paragraphs 3.4(c) and 3.5 of my evidence, amend the section 42A Report's recommended rule as follows:
	Rule 3.11.5.5 - Restricted Discretionary Activity Rule – Existing commercial vegetable production
	The use of land for commercial vegetable production is a restricted discretionary activity subject to the following conditions:
	a. The property is registered with the Waikato Regional Council in conformance with Schedule A; and
	c. Cattle, horses, deer and pigs are excluded from water bodies in conformance with Schedule C; and

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	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
	<i>ii. The maximum areas (hectares) of land and their locations, per sub-catchment [refer to Table 3.11-2]; and</i>
	iii. quantification of nitrogen and phosphorus surpluses for each commercial vegetable production crop and a description of sediment control measures; 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 that was used for commercial vegetable production during the period 1 July 2011 to 30 June 2016; 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.
	Waikato Regional Council restricts its discretion to the following matters:
	i. The content, compliance with and auditing reviewing of the Farm Environment Plan.
	ii. The maximum total and per-sub-catchment area of land to be used for commercial vegetable production.

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	iii. The actions and timeframes to achieve Good Farming Practices or better and any relevant minimum standards to avoid exceeding baseline losses.
	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.
Schedules	
Schedule B – Nitrogen Reference Point	As discussed in paragraphs 3.6 and 3.7 of my evidence, given the recommended reliance on nitrogen surplus (rather than NRP) for commercial vegetable production within PCV1 and
(Sub. No's. PC1-10165, V1PC1-284 and V1PC1-1347)	Variation 1, delete all of the references to ' <b>commercial vegetation production'</b> as contained in the section 42A Report's recommended schedule as follows:
(Further Sub No's. PC1-11506, PC1- 87443 and PC1-8451)	A property with a cumulative area greater than 20 hectares <del>(or any property or enterprise used for commercial vegetable production)</del>
	b, except for commercial vegetable production in which case the Nitrogen Reference Point shall be the average annual nitrogen leaching loss during the reference period.
	 f, <del>except for commercial vegetable production in which case the reference period is 1</del> July 2011 to 30 June 2016.

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	<b>However,</b> if it is decided to continue to use of Overseer and a NRP for commercial vegetable production (including as an option), then retain the section 42A Report's recommended amendments (refer above) to the schedule that relate to ' <b>commercial vegetation production'</b> .
Schedule 1 – Requirements for Farm Environment Plans	As discussed in paragraphs 5.1 to 5.8 of my evidence, amend the section 42A Report's recommended schedule as follows:
(Sub. No's. PC1-10174 and PC1-	Schedule 1 - Requirements for Farm Environment Plans
12502)	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
	<ul> <li>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.</li> </ul>
	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.

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	PART B – FEP CONTENT
	The FEP shall contain as a minimum:
	1. The property or enterprise details:
	<ul> <li>Full name, address and contact details (including email addresses and telephone numbers) of the person responsible for the land use activities;</li> </ul>
	<ul> <li>b) Legal description of the land and any relevant farm identifiers such as dairy supply number.</li> </ul>
	2. A map(s) at a scale that clearly shows:
	a) The boundaries of the property or land areas being farmed;
	<ul> <li>b) The boundaries of the main land management units or land uses on the property or within the farm enterprise;</li> </ul>
	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;
	<ul> <li>f) The location of any critical source areas and hotspots for contaminant loss to groundwater or surface water; and</li> </ul>
	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
	<ul> <li>a description of those farming practices that will continue to be undertaken in a manner consistent with the objectives and principles;</li> </ul>

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	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.

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	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;
	<i>Or, where the property's NRP is &gt; than the 75th percentile</i>
	<ol> <li>Farm in a manner that <u>demonstrates clear and enduring commitments to ensuring</u> <u>reductions in does not result in farm nitrogen losses</u> exceeding the 75th%ile for the FMU; or</li> </ol>
	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.

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	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.

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	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 land use consent application with the Council under rule 3.11.5.3 – 3.11.5.5 of PC1; and
	<u>1</u> 2. Within 12 months of the granting of that consent application; and
	<u>2</u> <del>3</del> . In accordance with the review intervals set out in the conditions of that resource consent.

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	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 who is independent of any Certified Farm <u>Environment Planner involved in the preparation of the FEP.</u> , and FEP reviews 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.
Part C – Glossary of Terms	
Best management practice/s (Sub. No. PC1-10186)	As discussed in paragraph 6.19 of my evidence, delete this definition as recommended, as a preferred option, in the section 42A Report.

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Certified Farm Environmen Planner	As discussed in paragraphs 6.10 to 6.15 of my evidence, amend the section 42A Report's recommended definition as follows:
(Sub. No. PC1-10187)	is a person certified by the Chief Executive Officer of Waikato Regional Council and has as a minimum the following qualifications and experience:
	a. three five years' relevant experience in agricultural and horticultural farm systems; and
	b. a Certificate of Completion in Advanced Sustainable Nutrient Management in New Zealand Agriculture from Massey University or an equivalent advanced training or a tertiary qualification in sustainable nutrient management; and
	c. experience in soil conservation and sediment management; or
	d. is certified as a Nutrient Management Advisor under the Nutrient Management Adviser Certification Programme Limited.
	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.
	Note: Certified Farm Environment Planners will be listed on the Waikato Regional Council's website.
Five year rolling average (Sub. No. PC1-10200)	As discussed in paragraph 2.8(d) of my evidence, delete this definition as recommended in the section 42A Report.
Good Management Practice/s (Sub. No. PC1-10186)	As discussed in paragraphs 6.16 to 6.23 of my evidence, amend the section 42A Report's recommended definition as follows:
· · · · · · · · · · · · · · · · · · ·	Good Farming Management Practice/s: For the purposes of Chapter 3.11, means practices and actions undertaken on a property or enterprise that evolve over time and result in continuous improvement and which manage, reduce or minimise the risk of contaminants entering a water body.
	Documents describing Good Management Practices include, but are not limited to:

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	<ul> <li>Industry-agreed Good Management Practices relating to water quality (September 2015), and any subsequent updates.</li> <li>Good Farming Practice – Action Plan for Water Quality 2018.</li> </ul>
	And, consequential amendments throughout PC1 and Variation 1 whereby all references to 'Good Farming Practice' are amended to refer to 'Good Management Practice'.