# BEFORE THE HEARING COMMISSIONERS AT HAMILTON

IN THE MATTERof the Resource Management Act 1991<br/>("the Act")ANDof the Act")IN THE MATTERof the hearing of submissions on The<br/>Proposed Waikato Regional Plan Change 1 –<br/>Waikato and Waipa River Catchments: Block 3

## PRIMARY STATEMENT OF EVIDENCE BY DAMIEN FARRELLY FOR HORTICULTURE NEW ZEALAND

9 July 2019

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## SUMMARY STATEMENT

 This industry scheme evidence addresses the Horticulture New Zealand ("HortNZ") submission, further submissions and the Waikato Regional Council's ("WRC") Section 42A Report responses to the submissions on the Proposed Waikato Regional Plan Change 1 – Waikato and Waipa River Catchments ("PC1").

## **QUALIFICATIONS AND EXPERIENCE**

- 2. My full name is Damien John Farrelly. I am the New Zealand Good Agricultural Practice ("**NZGAP**") Manager at HortNZ. I have the qualifications and experience set out in my evidence for Block 1 and Block 2.
- 3. While this is not a hearing before the Environment Court, I can confirm that I have read and agree to comply with the Code of Conduct for Expert Witnesses produced by the Environment Court and have prepared my evidence in accordance with those rules. My qualifications as an expert are set out above. While I am an employee of HortNZ I am have been employed as an expert in my field. I am not an advocate for the positions adopted by HortNZ rather I support those positions from my position as an expert.
- 4. I confirm that the issues addressed in this brief of evidence are within my area of expertise.
- 5. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

## SCOPE OF EVIDENCE

- 6. This evidence is to support the submission by HortNZ that requirements for Farm Environment Plans in Schedule 1 should align with Good Farm Principles.
- 7. I support the general approach taken in Schedule 1: Requirements for Farm Environment Plans which aligns content with the Good Farming Principles (GFP) as outlined in the Ministry for the Environment's GFP Action Plan.
- 8. I support the approach that the FEP content should identify the sources of sediment, nitrogen, phosphorus and microbial pathogens, and identify a plan of action to reduce the risks of contaminant losses from those sources and timeframes for those actions to be completed that are tailored to each property.
- I support the approach the that FEPs should be flexible and have more of a focus on outcomes, so that they enable changes in farm practises in response to changing conditions, new technologies or improved practises.

- 10. I believe that terminology relating to review of FEPs is not consistent with the Section 42A report where the word "audit" has been replaced by "review". There is a large focus on an adviser approach and CFEPs, which is in conflict with an audit approach as outlined in the section "certified sector schemes" and the section "How GAP schemes deliver on Good Environmental Outcomes" of my evidence.
- 11. I am concerned that the minimum requirements for vegetable production have been removed so have provided some proposed amendments to Schedule 1 (see Appendix 1), as also identified in evidence by Vance Hodgson and Chris Keenan.
- 12. I am concerned that the current interpretation of the Certified Industry Scheme (CIS) does not provide for acceptance of GAP schemes. The interpretation of CIS is an extension-based support role rather than the independently audited assurance framework in which NZGAP certified growers operate.
- 13. I concerned that the definition for CFEPs being extended to include FEP auditors, and believe that they should have different definitions with different roles/responsibilities. I also believe that there should be a separate definition for CFEPs for commercial vegetable production. I support Andrew Barber's proposed definition for the CFEP (for commercial vegetable production) which is more appropriate to the compliance pathway for CVP for calculation and adherence to the proxy NRP.

## FARM ENVIRONMENT PLANS

- 14. I support the general approach taken in Schedule 1: Requirements for Farm Environment Plans which aligns content with the Good Farming Principles (GFP) as outlined in the Ministry for the Environment's GFP Action Plan.
- 15. I agree that the more widely recognised 'good farming practices' (GFP) framework is an important foundation for FEPs (s42A Report, paragraph 178), in terms of guiding their development, providing a more outcomes focused approach, and checking on implementation.
- 16. I agree that FEPs should shift towards taking a "Good Farming Practise" approach, and while focussing FEPs on GFP, they can be used alongside minimum standards (s42A, paragraph 186)
- 17. I agree with maintaining, and strengthening FEPs as a core methodology in PC1 to deliver reductions across all of the four contaminants (s42A report, paragraph 178).

- 18. I agree that the resource consent would include conditions requiring the farmer to maintain an FEP that shows how they will farm in a manner consistent with the objectives and principles of Schedule 1 and requiring that they follow their FEP (Rob Dragten Report, section 2.2.1, paragraph 5).
- 19. I am concerned that the minimum requirements for vegetable production have been removed so have provided some proposed amendments to Schedule 1 (see Appendix 1), as also identified in evidence by Vance Hodgson and Chris Keenan.

## Part A – Provision of FEP

20. While I generally support the adoption of a digital approach, I have concern that requiring all FEPs to be provided to Council in a digital format, and that detailed requirements on data provision and format greatly reduce the flexibility of FEPs and the ability for Council to adopt existing industry FEP templates and data structures. This approach will lead to a focus on technical processes and data rather than focusing on environmental outcomes. I am also concerned about the costs associated with development of a bespoke digital FEP system for the Council, rather than taking a national approach to FEP data standards and provision of data to regulators.

## Part B – FEP Content

- 21. The rule stipulates that "The FEP shall contain as a minimum" a description of all practices that are currently in place, or that will be adopted consistent with the objectives and principles. The terminology used does not allow for indication that a principle or objective is not applicable to a particular property. For example, Objective 5 on stock exclusion is not applicable if there are no stock in the farming/horticulture activity. I have suggested an amendment to include "with applicable" (Appendix 1).
- 22. I agree that the FEP content should identify the sources of sediment, nitrogen, phosphorus and microbial pathogens, and identify a plan of action to reduce the risks of contaminant losses from those sources and timeframes for those actions to be completed that are tailored to each property (Section 42A, paragraph 184).
- 23. I agree that Policy 2 should place greater emphasis on the riskbased approach, and require greater action from farmers who are undertaking high-risk activities, operating in higher risk environments or are further from GFP (s42A, paragraph 187).
- 24. I agree that FEPs should include methods for ensuring implementation has occurred and is effective (s42A, paragraph

186). This would form part of the FEP Action Plan, and include the need to retain evidence of implementation. Not all actions can be proved to be effective at farm level however, so alternatively GMPs should be underpinned by research which quantify their effectiveness.

25. I agree that FEPs should be flexible and have more of a focus on outcomes, so that they enable changes in farm practises in response to changing conditions, new technologies or improved practises (s42A, paragraph 186).

## Part D – FEP Changes

26. I agree that changes can be made to the FEP without requiring sign-off from the CFEP, and without triggering amendments to a resource consent. FEPs should evolve as farmers and growers adopt good management practices and should be flexible enough for farmers and growers to amend and update as appropriate. I agree that there is a need for FEPs to be flexible so that continuous improvements can be made, with appropriate transparency around review of FEPs (s42A, paragraph 186).

## **ARM ENVIRONMENT PLAN AUDIT**

27. I agree with the approach of FEP audits of on-farm actions to give confidence to the Council, the community and farmers that improvements in farm practices are being made (S42A, paragraphs 178, and 187). I believe that this component can be delivered via independently audited assurance schemes like NZGAP.

## Part C – FEP Review Requirements:

- 28. Terminology in Schedule 1 is not consistent with the Section 42A report where the word "audit" has been replaced by "review". There is a large focus on an adviser approach and CFEPs, which is in conflict with an audit approach as outlined in the section "certified sector schemes" and the section "How GAP Schemes deliver on Good Environmental Outcomes" of my evidence.
- 29. Reference to audit of FEPs has been removed from proposed the plan. The plan now says review instead (S42A, Schedule 1 Part D). This is in contrary to terminology used to date, including in the section 42A report where it states there is "The need for the FEP process to include appropriate auditing and monitoring, including accountability for actions" (s42A, paragraph 186). I have proposed a change to this terminology in Appendix 1 of my evidence.
- 30. The section 42A report states that the audit process itself will be set out in a separate audit manual (s42A, paragraph 215). It is

reasonable that WRC develop rules and processes for Council appointed FEP auditors, however the current wording does not allow for the recognition of existing and robust assurance frameworks like NZGAP (see section on "How GAP schemes deliver on Good Environmental Outcomes"). The issue is that as a recognised scheme, auditors will be operating under two assurance frameworks (and associated Quality Management System) which is almost impossible to implement if there are conflicts in the processes or approach.

- 31. Rob Dragten's Report proposes a Level of Confidence (LOC) approach, which is different from the threshold level approach by industry schemes like NZGAP. The outcomes from an NZGAP audit can be benchmarked to the LOC approach in a similar way to what has been done with Environment Canterbury. However it cannot replace the audit processes used by the scheme as the existing audit approach is the basis of international assurance schemes and is what is required for market access assurance. This comes back to the rules and process for recognition of industry schemes for the audit of FEPs (see section on "How GAP schemes deliver on Good Environmental Outcomes").
- 32. I agree that the Council would retain the ability to review the conditions of a consent that received a "D" grade (Rob Dragten Report, section 2.2.1, paragraph 14,15) as this approach follows a risk-based approach to compliance. I agree that the risk-based compliance approach will enable the Council to focus their compliance resources on the highest risk parties. Those who cannot meet the requirements set out in Schedule 1, will no-longer be certified by the industry scheme and this would be communicated to the Council who may then take enforcement action. This compliance approach is consistent with the approach adopted by MPI for the Food Act 2014 relating to NZGAP (see section on MPI recognition of GAP schemes)

## **CERTIFIED FARM ENVIRONMENT PLANNERS**

33. The revised Schedule 1 requires that auditing be undertaken by a CFEP, however, I believe that the roles of the CFNA, CFEP and FEP auditor are being confused and unnecessarily overlapped. I believe that these are distinct responsibilities and skill sets which should not be interchangeable as suggested in s42A, paragraph 215:

This approach provides for greater farmer input into the production of FEP's, with robustness and transparency provided through the involvement of a CFEP in auditing.

- 34. The role of the FEP auditor further is blurred with the role of the CFEP in Rob Dragten's Report. It states that the CFEP would identify the actions and practices that would be necessary to give a high level of consistency of the FEP with the objectives and principles of the schedule (Rob Dragten Report, Section 2.2.2, paragraph 4). This may indeed be the role of a CFEP, however it is not the role of an FEP auditor to do so. The role of the FEP auditor should be to objectively audit the FEP and identify if improvement is needed, not to provide advice to farmers/growers. As outlined in paragraph 33 of my evidence, I believe these are distinct roles which should be mutually exclusive, to ensure the integrity of the FEP audit, and to remove the conflict of interest between the development of FEPs and the audit of FEPs.
- 35. I concerned that the definition for CFEPs being extended to include FEP auditors, and believe that they should have different definitions with different roles/responsibilities. I also believe that there should be a separate definition for CFEPs for commercial vegetable production. I support Andrew Barber's proposed definition for the CFEP (for commercial vegetable production) which is more appropriate to the compliance pathway for CVP for calculation and adherence to the proxy NRP.

## **CERTIFIED SECTOR SCHEMES**

- 36. I have covered Certified Sector Schemes in my Block 2 Evidence, so here I have described the GAP Assurance Framework, Ministry for Primary Industry's (MPI) recognition of GAP schemes, and Environment Canterbury (Ecan) recognition of NZGAP in the proceeding sections. NZGAP and its certified growers operate in an internationally recognised assurance framework which has already been recognised by MPI and ECan, so I believe that PC1 should include a pathway for recognition of such schemes or independently audited self-management schemes.
- 37. The cost of development and implementation of FEPs is acknowledged in the Section 42A report, however I believe that the recognition of industry schemes like NZGAP have the ability to greatly reducing costs, while achieving the same outcome. Aside from the development and adherence to the NRP, the audit of FEP implementation is already a component of NZGAP via the newly developed Environmental Management System (EMS) add-on. The focus is on the assurance framework and monitoring action on-farm, rather than focusing on the certification of advisers and FEP development which in many instances can be achieved by farmers and growers who have appropriate in-house capability.
- 38. My concern is that the current interpretation of the Certified Industry Scheme (CIS) does not provide for acceptance of GAP

schemes. The interpretation of CIS is an extension-based support role rather than the independently audited assurance framework in which NZGAP certified growers operate.

39. The CIS principles do not acknowledge the credibility of the GAP assurance framework with 3rd party audits and JAS-ANZ accreditation of Certification Bodies who audit growers seeking to become GAP certified or maintain GAP certification.

## HOW GAP SCHEMES DELIVER ON GOOD ENVIRONMENTAL OUTCOMES

- 40. Good Agricultural Practice (GAP) schemes provide assurance for the safe and sustainable production and supply of fruit and vegetables in New Zealand.
- 41. GAP schemes are independently audited self-management assurance schemes which provide a pathway for members to demonstrate compliance with regulatory and market requirements via 3<sup>rd</sup> party audit of recognised standards (Figure 1).
- 42. GAP schemes are already recognised by NZ regulators as meeting equivalent compliance outcomes (see section on MPI recognition of GAP schemes)
- 43. Growers who meet GAP standards are able to demonstrate that required practices are in place for the production of New Zealand fresh produce to meet local and international regulatory and market requirements so customers can buy with confidence.
- 44. GAP standards in NZ horticulture are benchmarked to internationally recognised standards including GLOBALG.A.P. Integrated Farm Assurance (IFA), standard version 5.1, and NZGAP is currently under-going benchmarking and recognition to version 5.2.
- 45. GAP standards based on market, regulatory and industry standards, and are supported by guidelines and codes of practice which are underpinned by regulatory and industry research.
- 46. GAP schemes provide an outcomes-focused and risk-based integrated quality management systems approach.
- 47. All certified growers are independently (3<sup>rd</sup> party) audited by JAS-ANZ (Joint Accreditation System of Australia and New Zealand) certification bodies, and they must continuously meet requirements of GAP standards to maintain certification.
- 48. Certified growers are required to provide a significant amount of evidence of their practices during the audit process (including

records, certificates, documentation and observations) to demonstrate that they are implementing standards as required.

- 49. The credibility and trust in the system and horticulture sector is underpinned by the benchmarking and acceptance of its standards by regulators and markets, and the demonstration of implementation via robust 3<sup>rd</sup> party audit of members.
- 50. While there are a number of advisers who provide support and assistance to growers seeking to comply with NZGAP standards, there is currently no desire to develop an adviser certification programme, and instead NZGAP endorses advisers with minimum competency and experience requirements.
- 51. The GAP audit identifies any issues in an FEP as well as robustness of relevant components (e.g. nutrient management plan), therefore using the outcomes approach and focus, there is less emphasis required on the qualifications of persons preparing FEPs.
- 52. NZGAP has developed an EMS add-on which provides growers with a system and pathway to demonstrate that they are operating at Good Management Practice by developing and implementing a Farm Environment Plan (FEP) as required by regional councils across NZ.
- 53. The core focus areas of the EMS are Soil Management, Nutrient Management, Irrigation and Water Management, Waterbody and Biodiversity Management as outlined in Farm Environment Plan requirements of land and water regional plans.
- 54. The EMS is based on New Zealand horticulture growing systems and empowers growers to systemise complex environmental issues by mitigating identified risks with appropriate control measures outlined in industry and council developed guidelines and codes of practice (e.g. HortNZ Code of Practice for Nutrient Management, Soil Erosion and Sediment Control Guideline, Industry-agreed Good Management Practices relating to water quality)
- 55. The EMS, industry guidelines and codes of practice are periodically updated with new information and mitigations based on the latest relevant environmental research.
- 56. The EMS and its associated guidelines adopt a risk-based approach to environmental management and implementation of GMP, as not all GMPs are appropriate for all situations and all land uses (for example fruit trees vs cultivation for vegetables, flat land vs hills, waterways on-farm vs no waterways).



Fig 1: New Zealand Conformance Infrastructure for GAP certification

## MPI RECOGNITION OF GAP SCHEMES

- 57. MPI has approved the GAP assurance framework, standards, people and processes so that growers can demonstrate compliance with the Food Act 2014 in an effective way via their GAP audit and existing Food Safety system.
- 58. MPI has recognised the existing NZGAP and GLOBALG.A.P. checklists as template food control plans by benchmarking outcomes of GAP checklist against requirements of the Food Act (this is the Food Safety equivalent of an industry Farm Environment Plan template benchmarked against Schedule 1 requirements).
- 59. MPI has recognised GAP auditors as Food Act verifiers for the audit of growers (which is the equivalent of an FEP auditor).
- 60. MPI has not prescribed the audit manual and processes that GAP auditors must follow, and instead has accepted the existing robust GAP framework, systems, rules and processes, while providing guidance on the role of Food Act Verifiers.
- 61. MPI have recognised the JAS-ANZ assurance framework under which GAP Certification Bodies and their auditors operate, and this is equivalent to the assurance framework under which local councils and their directly employed verifiers operate. GAP schemes therefore operate in parallel to local councils, and report directly to MPI, rather than operating underneath each council.
- 62. There is a consistent assurance framework and audit process operating across all regions, and Certification Bodies have

attained equivalent high level MPI recognition as a local council for the management of 3<sup>rd</sup> party audit of food control plans (Figure 2).

- 63. MPI have recognised industry bodies and GAP schemes for the batch registration of over 3,500 certified members which has saved industry almost \$1 million in direct registration costs this year alone.
- 64. Recognition of GAP schemes is estimated to save growers a further \$2 million in verification costs in the coming year as the GAP audit is recognised as a Food Act verification, thus removing the requirement for an additional audit.
- 65. MPI have recognised Certification Bodies and GAP schemes for the reporting of high-level verification outcomes which is estimated to save growers up to \$0.5 million in the coming year.
- 66. If a grower fails to meet GAP requirements for certification, or a critical issue is uncovered during an audit, MPI are notified and a Food Safety Compliance Officer may be engaged to follow up with the grower (this is equivalent to NZGAP notifying WRC of an issue which can be followed up by a compliance officer).
- 67. As MPI still has enforcement obligations, they have not delegated all compliance obligations to industry via GAP scheme acceptance. Instead, MPI are utilising GAP schemes to deliver on the requirement for Food Act verifications for 3,500 growers in an effective way and allows MPI to focus their compliance resources on the highest risk parties.



Fig 2: MPI recognition of GAP schemes assurance framework and processes

## ENVIRONMENT CANTERBURY RECOGNITION OF NZGAP

- 68. Environment Canterbury (ECan) Chief Executive Bill Bayfield announced the recognition of the New Zealand Good Agricultural Practice (NZGAP) scheme in April 2019 under Plan Change 5 of the Land and Water Regional Plan (Figure 3).
- 69. ECan have approved the EMS and templates as meeting the requirements for Farm Environment Plans in Schedule 7 of Plan Change 5 of the Land and Water Regional Plan.
- 70. ECan have recognised the NZGAP auditors (3<sup>rd</sup> party auditors employed by AsureQuality and SGS NZ Ltd) as FEP auditors.
- 71. NZGAP and the EMS add-on is now recognised as a pathway for growers to demonstrate compliance with Canterbury's requirements for an independently audited FEP.
- 72. NZGAP and Synlait Lead with Pride are the only programmes which have been approved as by ECan as ISO accredited audit programmes.
- 73. NZGAP approval empowers growers in Canterbury to demonstrate that they are operating at Good Management Practice on environmental issues via the EMS add-on, as an extension to their existing GAP system.
- 74. NZGAP audit outcomes are benchmarked to ECan audit grades (A, B, C, D) as shown in figure 3 so that ECan's reporting outcomes can be delivered via an EMS audit.

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	ISO ACCREDITED A PROGRAMME APPF		
and Bark	NZGAP		
	is approved as an ISO Accredited Au under the Canterbury Land & Water		
	Cartification valid from: 1 April 2019	то: 1 April 2022	
	pate 11 April 2019	alli asyfeid Chief Executive	

Figure 3: ECan recognition of NZGAP as an ISO Accredited Audit Programme

ECAN A B C D								
ECan Grade	ECan requirement	NZGAP audit result	Follow up action					
A	<ol> <li>NDL met</li> <li>GMP in place</li> <li>N loss target met as shown by model</li> </ol>	Certified	Refer to scheme rules for NZGAP audit frequency					
в	NDL not met     GMP in place     N loss target not met – model limitation	Certified						
в*	<ol> <li>NDL not met</li> <li>GMP in place – some issues need resolving</li> <li>N loss target not met – model limitation</li> </ol>	Non- Conformanc e	Critical: 7 days		Recommended: No time frame			
с	<ol> <li>NDL not met</li> <li>GMP in place but issues not addressed</li> <li>N loss target not met – not model limitation</li> </ol>	Suspended	Critical/Major issues not addressed Re-audit when grower has met target x3 times means discontinued					
D	NDL not met     GMP not in place     N loss target not met – not model     limitation	Discontinued	Environment Canterbury notified that grower has left programme					
<ul> <li>NDL – Nutrient Discharge Limit (allowable limit for Nitrogen loss for the enterprise in their resource consent)</li> <li>GMP – Good Management Practice</li> <li>N loss – Modelled loss of Nitrogen (using OVERSEER, NCheck or other approved model) due to farming activities within the enterprise</li> </ul>								

Figure 4. Conversion of EMS audit grade to ECan audit grade

## APPENDIX 1: CHANGES TO SCHEDULE 1 REQUESTED BY HORTNZ

- Strike through for deletions
- Additions highlighted in yellow

#### Schedule 1 - Requirements for Farm Environment Plans/Te Āpitihanga 1: Ngā Herenga i ngā Mahere Taiao ā-Pāmu

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

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

#### PART B – FEP CONTENT

The FEP shall contain as a minimum:

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

- 2. <u>A map(s) at a scale that clearly shows:</u>
  - a) The boundaries of the property or land areas being farmed;
  - b) The boundaries of the main land management units or land uses on the property or within the farm enterprise;
  - c) The location of any Schedule C waterbodies;
  - d) The location of riparian vegetation and fences adjacent to water bodies;
  - e) The location on any waterways where stock have access or there are stock crossings;
  - f) The location of any critical source areas and hotspots for contaminant loss to groundwater or surface water; and
  - g) <u>The location(s) of any required actions to support the achievement of</u> <u>the objectives and principles listed in section 3.</u>
- 3. <u>An assessment of whether farming practices are consistent with each of the following objectives and principles; and</u>
  - a. <u>a description of those farming practices that will continue to be</u> <u>undertaken in a manner consistent with the objectives and</u> <u>principles;</u>
  - 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**

- 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. <u>Maintain accurate and auditable records of annual farm inputs, outputs</u> <u>and management practices.</u>
- 3. <u>Manage farming operations to minimise losses of sediment, microbial</u> pathogens, phosphorus and nitrogen to water, and maintain or <u>enhance soil structure.</u>

## 3b - Management Area: Nutrient management

## Objective 2

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

#### **Principles**

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

#### **Objective 3**

To farm in accordance with the nitrogen management requirements of PC1 <u>Principle</u>

*Either, where the property's NRP is*  $\leq 75^{\text{th}}$  *percentile:* 

- 9. <u>Farm in a manner that does not result in farm nitrogen losses</u> <u>exceeding the farm's NRP;</u>
- Or, where the property's NRP is > than the 75<sup>th</sup> percentile
- Farm in a manner that does not result in farm nitrogen losses exceeding the 75<sup>th</sup>%ile for the FMU; or
- Or, where the property's NRP is calculated using a proxy limit
- Farm in a manner that does not result in farm nitrogen losses exceeding the farm's NRP.

#### 3c - Management Area: Waterways

#### **Objective 4**

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

#### **Principles**

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

#### **Objective 5**

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

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

#### 3d - Management Area: Land and soil

#### **Objective 6**

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

- Principles
  - 14. <u>Manage periods of exposed soil between crops/pasture to reduce risk of erosion, overland flow and leaching.</u>
  - 15. <u>Manage or retire erosion-prone land to minimise soil losses through</u> <u>appropriate measures and practices.</u>
  - 16. <u>Select appropriate paddocks for growing crops and intensive grazing,</u> recognising and mitigating possible nitrogen and phosphorus, faecal, and <u>sediment loss from critical source areas.</u>
  - 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. <u>Have sufficient storage available for farm effluent and wastewater and actively manage effluent storage levels.</u>
- 20. <u>Ensure equipment for spreading effluent and other organic manures is</u> well maintained and calibrated.
- 21. <u>Apply effluent to pasture and crops at depths, rates and times to match</u> plant requirements and soil water holding capacity.

#### 3f – Management Area: Water and irrigation

#### **Objective 8**

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

#### **Principles**

- 22. <u>Manage the amount and timing of irrigation inputs to meet plant</u> <u>demands and minimise risk of leaching and run off.</u>
- 23. <u>Design, check and operate irrigation systems to minimise the amount of</u> <u>water needed to meet production objectives.</u>

3g – Management Area: Commercial Vegetable Production

#### <u>Objective 9</u>

To grow commercial vegetables in accordance with the vegetable growing minimum standards

#### **Principles**

- 24. <u>Manage soil in accordance with the HortNZ Erosion and Sediment Control</u> <u>Guidelines 2014.</u>
- 25. <u>Manage nutrients in accordance with the HortNZ Code of Practice for</u> <u>Nutrient Management 2014.</u>
- 26. <u>Maintain efficient irrigation to ensure yields and the export of nitrogen in</u> crop are maximised.
- 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) <u>A defined and auditable description of the actions and practices to be</u> <u>undertaken to farm in accordance with the objectives and principles in</u> <u>Part B;</u>
  - c) <u>The records and evidence that must be kept that demonstrate</u> <u>performance and the achievement of an objective or principle listed in</u> <u>Part B.</u>

## PART C – FEP REVIEW REQUIREMENTS

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

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

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

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

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. <u>The change to the FEP does not contravene any mandatory</u> requirement of the resource consent, or any requirement of the <u>Regional Plan that is not already authorised.</u>
- 3. <u>The nature of the change is documented in writing and made available</u> to any CFEP undertaking a review, or to the Waikato Regional Council, <u>on request.</u>