Background and explanation

Add new text to support the horticultural relief proposed:

The approach to reducing contaminant losses from horticultural land implemented by Chapter 3.11 requires:

- Recognise the essential aspects of the vegetable production industry in the Waikato.
- Identify that existing vegetable production has a priority over any new production that is likely to have a greater contribution of discharges.
- Authorised farm enterprise through a capped area controlled activity consent, allows for rotation across new and existing land parcels.
- Opportunities for new vegetable production are available if the proposed operation can demonstrate it is within the defined expansion cap, or can demonstrate an overall decrease in discharges (across all four contaminants) compared to the activity it is replacing.
- Recognition of permanent fruit production as a low intensity farming activity

3.11.1.1 Mana Atua – Intrinsic values

Add new bullet to the Primary production value:

- There are unique environments within the Waikato (e.g. Pukekohe and Pukekawa) that support primary production activities, critical in the national domestic food chain.

3.11.2 Objectives/Ngā Whāinga

Add or delete the following from the Objectives:

Objective 3: Short-term improvements in water quality in the first stage of restoration and protection of water quality for each sub-catchment and Freshwater Management Unit/Te Whāinga

3: Ngā whakapainga taupoto o te kounga wai i te wāhanga tuatahi o te whakaoranga me te tiakanga o te kounga wai i ia riu kōawāwa me te Wae Whakahaere Wai Māori

Actions put in place and implemented by 2026 to reduce discharges of nitrogen, phosphorus, sediment and microbial pathogens, are sufficient to achieve ten percent of the required change between current water quality and the 80-year water quality attribute targets in Table 3.11-1. A ten percent change towards the long term water quality improvements is indicated by the short term desired water quality states in Table 3.11-1 or achievement of the contaminant load reduction targets specified for each subcatchment in Schedule 1C Table XX[1].

[1] For the purpose of this relief HortNZ has produced a 10 year Subcatchment Load Target Table (Schedule 1C Table XX) and attached it to proposed relief as part of new Schedule 1C below. As an alternative where it is mentioned in this submission it could be inserted as a new part of Table 3-11-1

Objective 4: People and community resilience/Te Whāinga 4: Te manawa piharau o te tangata me te hapori

A staged approach to change enables people and communities to undertake adaptive management to continue to provide for their social, economic and cultural wellbeing in the short term while:

a. considering the values and uses when taking action to achieve the ~~attribute targets~~ objectives and desired water quality states for the Waikato and Waipa Rivers in Table 3.11-1; or achievement of the contaminant load reduction targets specified for each subcatchment in Schedule 1C Table XX; and

b. recognising that further contaminant reductions will be required by subsequent regional plans and signalling anticipated future management approaches that will be needed to meet Objective 1. And

c. recognising that this plan change is transitional, to provide time to develop the tools required to more efficiently allocate responsibility for achieving contaminant reduction ~~targets~~ objectives and desired water quality states in the long-term.

d. enabling the production of contaminant accounting frameworks that support robust measurement of progress to achieving the long-term and short-term ~~target~~ desired water quality states ~~for attributes~~ and subcatchment load limits by more accurately identifying property level responsibilities for contaminant reduction.

3.11.3 Policies/Ngā Kaupapa Here

Add or delete the following from the Policies:

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

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

a) Enabling activities with a low level of contaminant discharge to water bodies provided those discharges do not increase; and

b) Requiring farming activities with moderate to high levels of contaminant discharge to water bodies to reduce the effect of their discharges through on-farm and / or off-farm actions; and

Ba) Enabling collective action at a catchment scale by groups seeking to manage discharges as a single entity; and

bb) Providing criteria for the approval of natural resource accounting systems used to enable catchment or sub catchment based approaches;

bc) Providing a table of ten-year sub catchment load targets for the four contaminants (Schedule 1C Table XX),

c. Progressively excluding cattle, horses, deer and pigs from rivers, streams, drains, wetlands and lakes.

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

Manage and require reductions in sub-catchment-wide diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens from farming activities on properties and enterprises by:

a. Taking a tailored, risk based approach to define mitigation actions on the land that will reduce diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens, with the mitigation actions to be specified in a Farm or Enterprise Environment Plan either associated with a resource consent, or in specific requirements established by participation in a Certified Industry Scheme; and

b. Requiring the same level of rigour in developing, monitoring and auditing of mitigation actions on the land that is set out in a Farm or Enterprise Environment Plan, whether it is established with a resource consent or through Certified Industry Schemes; and

c. Establishing a Nitrogen Reference Point or proxy for ~~the~~ a property or enterprise that is not part of a consented catchment collective managing a range of properties as a single group; and

d. Requiring the degree of reduction in diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens to be proportionate to the amount of current discharge (those discharging more are expected to make greater reductions) when assessed across all 4 contaminants, and proportionate to the scale tailored to ensure reductions are targeted at actions within the subcatchments that will improve the values of freshwater specified within this plan ~~of water quality improvement required in the sub-catchment~~; and

e. Requiring stock exclusion to be completed within 3 years following the dates by which a Farm Environment Plan must be provided to the Council, or in any case no later than 1 July 2026.

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

~~Manage and require reductions in diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens from commercial vegetable production through a tailored, property or enterprise-specific approach where:~~

~~a. Flexibility is provided to undertake crop rotations on changing parcels of land for commercial vegetable production,while reducing average contaminant discharges over time; and~~

~~b. The maximum area in production for a property or enterprise is established and capped utilising commercial vegetable production data from the 10 years up to 2016; and~~

~~b. Establishing a Nitrogen Reference Point for each property or enterprise that; and~~

~~d. A 10% decrease in the diffuse discharge of nitrogen and a tailored reduction in the diffuse discharge of phosphorus, sediment and microbial pathogens is achieved across the sector through the implementation of Best or Good Management Practices; and~~

~~e. Identified mitigation actions are set out and implemented within timeframes specified in either a Farm Environment Plan and associated resource consent, or in specific requirements established by participation in a Certified Industry Scheme.~~

~~f. Commercial vegetable production enterprises that reduce nitrogen, phosphorus, sediment and microbial pathogens are enabled; and~~
~~g. The degree of reduction in diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens is proportionate to the amount of current discharge (those discharging more are expected to make greater reductions), and the scale of water quality improvement required in the sub-catchment.~~

Provide for commercial vegetable production including the flexibility to undertake crop rotations on changing parcels of land across sub-catchments and within Freshwater Management Units while requiring reductions in diffuse discharges from existing CVP and managing nitrogen, phosphorus, sediment and microbial pathogens for new CVP by:

a. Enabling commercial vegetable production that manages diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens within baselines and through adherence to Good Farming Practice, Farm Environment Plans and relevant minimum standards;

b. Adopting sector-based initiatives and other mitigation measures to progressively reduce losses of nitrogen, phosphorus, sediment and microbial pathogens;

c. Establishing baselines for each property or enterprise that define;

i. The maximum area of land in commercial vegetable production based on a representative sample of data from the ten years prior to 2016; allowing for the maximum area in any one year over that period; and

ii A commercial vegetable production rotation, nitrogen reference point or proxy nitrogen leaching load associated with a rotation; and

iii. Establishing sub-catchment and FMU baselines that define the area associated with the existing and new rotations in each sub-catchment and FMU.

d. Recognise the inter-regional domestic food supply values associated with commercial vegetable production by provisioning a maximum area of land available to support commercial vegetable food supply needs for population growth during the anticipated life of the plan subject to controls to ensure:

(i) The location is within the LUC I and II.
(ii) Sub-catchments identified as appropriate for CVP in Table 1.
(iii) The area associated with the CVP is less than the FMU area limit accounting for any consents that have already been granted.

e. Offsetting may be proposed for commercial vegetable production activity above the maximum areas set out in c) and d), provided that the outcome achieved are losses of all four contaminants within sub-catchments that are equal to or greater than the increase from the commercial vegetable production activity.

f. A nitrogen reference point is established for land no longer utilised for commercial vegetable production.

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

Except as provided for in Policy 3 and 16, land use change consent applications that demonstrate an increase in the diffuse discharge of nitrogen, phosphorus, sediment or microbial pathogens will generally not be granted.

Land use change consent applications that demonstrate clear and enduring decreases in existing diffuse discharges of nitrogen, phosphorus, sediment or microbial pathogens will generally be granted.

Policy 7: Preparing for allocation in the future/Te Kaupapa Here 7: Kia takatū ki ngā tohanga hei ngā tau e heke mai ana

Prepare for further diffuse discharge reductions and any future property or enterprise-level allocation of diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens that will be required by subsequent regional plans, by implementing the policies and methods in this chapter. To ensure this occurs, collect information and undertake research to support this, including collecting information about current discharges, developing appropriate modelling tools to estimate contaminant discharges, and researching the spatial variability of land use and contaminant losses and the effect of contaminant discharges in different parts of the catchment that will assist in defining 'land suitability'.

Any future allocation should consider the following principles:

a. Land suitability which reflects the biophysical and climate properties, the risk of contaminant discharges from that land, and the sensitivity of the receiving water body, as a starting point (i.e. where the effect on the land and receiving waters will be the same, like land is treated the same for the purposes of allocation); and

b. Allowance for flexibility of development of tangata whenua ancestral land; and

c. ~~Minimise social disruption and costs in the transition to the 'land suitability' approach; and~~

~~d. Future allocation decisions should take advantage of new data and knowledge;~~

e. Having regard for the finite nature of Highly Productive Land; and

f. Incorporating the principle of "polluter pays"; meaning that when assessed across the balance of contaminant discharges to water those having the greatest effect bear a proportionally greater cost of the transition.

Policy 9: Sub-catchment (including edge of field) mitigation planning, co-ordination and funding/Te Kaupapa Here 9: Te whakarite mahi whakangāwari, mahi ngātahi me te pūtea mō te riu kōawāwa (tae atu ki ngā taitapa)

Take a prioritised and integrated approach to sub-catchment water quality management by undertaking sub-catchment planning, and use this planning to support actions including edge of field mitigation measures and catchment collective responses. Support measures that efficiently and effectively contribute to water quality improvements. This approach includes:

a. Engaging early with tangata whenua and with landowners, communities and potential funding partners in sub-catchments in line with the priority areas listed in Table 3.11-2; and

b. Assessing the reasons for current water quality and sources of contaminant discharge, at various scales in a sub-catchment; and

c. Encouraging cost-effective mitigations where they have the biggest effect on improving water quality; and

da. Enable the collaborative management of discharges at a scale greater than a single farm and provide a consenting pathway for groups that form to take responsibility for contaminant reductions by implementing a combination of catchment and paddock scale mitigations that are able to be measured and reported. Where a consent application has

been approved under 3.11.5.X, the entity is allocated responsibility for a proportion of the allowable discharge limits based on the area of land covered by the consent and the load reduction targets specified for each sub catchment in Schedule 1C Table XX.

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.

e. Provide for offsetting where it can be demonstrated there will be a commensurate effect on the restoration of the health and well-being of the Waikato River.

3.11.4 Implementation methods/Ngā tikanga whakatinana

Retain the methods. Make changes to the methods as provided below:

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

Waikato Regional Council will work with others to develop sub-catchment scale plans and decision support tools (where a catchment plan or tool does not already exist) where it has been shown to be required. Sub-catchment scale planning will:

a. Identify the causes of current water quality decline, identify cost-effective measures to bring about reductions in contaminant discharges, and coordinate the reductions required at a property, enterprise and sub-catchment scale (including recommendations for funding where there is a public benefit identified).

b. Align works and services to reduce nitrogen, phosphorus, sediment and microbial pathogen discharges including riparian management, targeted reforestation, constructed wetlands, sediment traps and sediment detention bunds.

c. Assess and determine effective and efficient placement of constructed wetlands at a sub-catchment scale to improve water quality.

d. Support research that addresses the management of wetlands, including development of techniques to monitor ecological change and forecasting evolution of wetland characteristics resulting from existing land use in the wetland catchments.

e. Integrate the regulatory requirements to fence waterways with the requirements for effective drainage scheme management.

f. Coordinate funding of mitigation work by those contributing to water quality degradation, in proportion to that contribution.

g. Utilise public funds to support edge of field or catchment scale mitigations where those mitigations provide significant public benefit.

h. In support of method 3.11.4.7, utilise (and coordinate the management of) public funds to share the cost of constructing decision support tools meeting the criteria specified in Schedule 1C Table XX.

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

Gather information and commission appropriate scientific research to inform any future framework for the allocation of diffuse discharges including:

a. Implementing processes that will support the setting of property or enterprise-level diffuse discharge limits in the future.

b. Researching and making publicly available:

i. The quantum of contaminants that can be discharged at a sub-catchment and Freshwater Management Unit scale while meeting the Table 3.11-1 objectives and desired water quality states ~~water quality attribute targets~~ and / or subcatchment load targets identified Schedule 1C Table XX.

ii. Methods to categorise and define 'land suitability'.

iii. Tools for measuring or modelling discharges from individual properties, enterprises and sub-catchments, and how this can be related to the Table 3.11-1 objectives and desired water quality states ~~water quality attribute targets~~ and / or subcatchment load targets identified Schedule 1C Table XX.

c. Prior to 30 November 2020, by working with the Foundation of Arable Research, Horticulture New Zealand and The Pukekohe Vegetable Growers Association to develop a proxy nitrogen reference point for enterprises managing multiple properties and crops using a model or method approved by the Chief Executive of Waikato Regional Council to be used for nitrogen refence point calculated using the method described in Schedule B b).

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

Waikato Regional Council will establish and operate a publicly available accounting system and monitoring in each Freshwater Management Unit^, including:

a. Collecting information on nitrogen, phosphorus, sediment and microbial pathogen levels in the respective fresh water bodies in each Freshwater Management Unit^ from:

i. Council's existing river monitoring network; and

ii. Sub-catchments that are currently unrepresented in the existing monitoring network; and

iii. Lake Freshwater Management Units.

b. Using the information collected to establish the baseline data for compiling a monitoring plan and to assess progress towards achieving the Table 11-1 water quality attribute^ targets; and

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

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

d. An information and accounting system for the diffuse discharges from properties and enterprises that supports the management of nitrogen, phosphorus, sediment and microbial pathogens diffuse discharges at ~~an~~ subcatchment enterprise or property scale.

3.11.5 Rules/Ngā Ture

3.11.5.1 Permitted Activity Rule – Small and Low Intensity farming activities/Te Ture Mahi e Whakaaetia ana – Ngā mahi iti, ngā mahi pāiti hoki i runga pāmu
Rule 3.11.5.1 - Permitted Activity Rule – Small and Low Intensity farming activities

The use of land for farming activities (excluding commercial vegetable production) and the associated diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens onto or into land in circumstances which may result in those contaminants entering water is a permitted activity subject to the following conditions:

a. For low intensity horticulture

1. The property is registered with the Waikato Regional Council in conformance with Schedule A.

b. For all other activities:

1. The property is registered with the Waikato Regional Council in conformance with Schedule A; and

2. Cattle, horses, deer and pigs are excluded from water bodies in conformance with Schedule C; and
Either:

3. The property area is less than or equal to 4.1 hectares; and

4. The farming activities do not form part of an enterprise being undertaken on more than one property; or
Where the property area is greater than 4.1 hectares:

5. For grazed land, the stocking rate of the land is less than 6 stock units per hectare; and

6. No arable cropping occurs; and

7. The farming activities do not form part of an enterprise being undertaken on more than one property.

3.11.5.5 Controlled Activity Rule – Existing commercial vegetable production/Te Ture mō ngā Mahi ka āta Whakahaerehia – Te whakatupu hua whenua ā-arumoni o te wā nei
Rule 3.11.5.5 - Controlled Activity Rule – Existing commercial vegetable production
~~The use of land for commercial vegetable production and the associated diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens onto or into land in circumstances which may result in those contaminants entering water, is a permitted activity until 1 January 2020, from which date it shall be a controlled activity (requiring resource consent) subject to the following standards and terms:~~
~~a. The property is registered with the Waikato Regional Council in conformance with Schedule A; and~~

~~b. A Nitrogen Reference Point is produced for the property or enterprise in conformance with Schedule B and provided to the Waikato Regional Council at the time the resource consent application is lodged; and~~
~~c. Cattle, horses, deer and pigs are excluded from water bodies in conformance with Schedule C; and~~
~~d. The land use is registered to a Certified Industry Scheme; and~~
~~e. The areas of land, and their locations broken down by sub-catchments [refer to Table 3.11-2], that were used for commercial vegetable production within the property or enterprise each year in the period 1 July 2006 to 30 June 2016,~~
~~together with the maximum area of land used for commercial vegetable production within that period, shall be provided to the Council; and~~
~~f. The total area of land for which consent is sought for commercial vegetable production must not exceed the maximum land area of the property or enterprise that was used for commercial vegetable production during the period 1 July 2006 to 30 June 2016; and~~
~~g. Where new land is proposed to be used for commercial vegetable production, an equivalent area of land must be removed from commercial vegetable production in order to comply with standard and term f.; and~~
~~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.~~
~~Matters of Control~~
~~Waikato Regional Council reserves control over the following matters:~~
~~i. The content of the Farm Environment Plan.~~
~~ii. The maximum area of land to be used for commercial vegetable production.~~
~~iii. The actions and timeframes for undertaking mitigation actions that maintain or reduce the diffuse discharge of nitrogen, phosphorus or sediment to water or to land where those contaminants may enter water, including provisions to manage the effects of land being retired from commercial vegetable production and provisions to achieve Policy 3(d).~~
~~iv. The actions and timeframes to ensure that the diffuse discharge of nitrogen does not increase beyond the Nitrogen Reference Point for the property or enterprise.~~
~~v. The term of the resource consent.~~
~~vi. The monitoring, record keeping, reporting and information provision requirements for the holder of the resource consent to demonstrate and/or monitor compliance with 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.~~
~~Notification:~~
~~Consent applications will be considered without notification, and without the need to obtain written approval of affected persons.~~

The use of land for commercial vegetable production that was occurring at 22 October 2016 and the associated diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens onto or into land in circumstances which may result in those contaminants entering water, is a permitted activity until 1 September 2021 or a date 6 months after the plan becoming operative, from which date it shall be a controlled activity subject to the following conditions:

a. The property is registered with the Waikato Regional Council in conformance with Schedule A; and

b. Cattle, horses, deer and pigs are excluded from water bodies in conformance with Schedule C; and

c. The following information, relating to the land used by the applicant for commercial vegetable production each year in the period 1 July 2006 to 30 June 2016, is provided to the Council:
   i. The total, maximum area (hectares) of land used for commercial vegetable production; and
   ii. The maximum areas (hectares) of land and their locations, per sub-catchment [refer to Table 3.11-2] and FMU [refer to Map 3.11-1]; and
   iii. Description of the representative proxy farm system identified in the FEP Schedule ; and
   iv. A description of sediment control measures; and

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

e. The rotation for the period before and after the baseline period must be the same or less intensive rotation.

f. 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

g. 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

Matters of Control

Waikato Regional Council reserves control over the following matters:

i. The content, compliance with and auditing of the Farm Environment Plan.

ii. The maximum total and per-sub-catchment and FMU area of land to be used for commercial vegetable production.

iii. The actions and timeframes to achieve Good Farming Practices or better and any relevant minimum standards to avoid exceeding baseline losses.

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.

3.11.5.X – Restricted Discretionary Activity Rule – Commercial Vegetable Production: Provisional Growth

The use of land for commercial vegetable production: provisional growth, 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

b. Cattle, horses, deer and pigs are excluded from water bodies in conformance with Schedule C; and

c. The total area of land for which consent is sought for commercial vegetable production must not exceed the maximum land area calculated set out in Table 1.

d. 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; and
    (ii) Adherence to any relevant minimum standards.

e. Full electronic access to 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 reserves discretion over the following matters:

i. The content, compliance with and auditing of the Farm Environment Plan.

ii. The maximum total and per-sub-catchment and FMU area of land to be used for commercial vegetable production.

iii. The actions and timeframes to achieve Good Farming Practices or better and any relevant minimum standards to avoid exceeding baseline losses.

iv. The term that Council may apply to require a consent to be given effect to within a reasonable period of time to ensure that the activity consented occurs.

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.

Rule 3.11.5.XX – Restricted Discretionary Activity Rule – The management of contaminants from farming activities by a catchment collective

The management of diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens onto or into land by a catchment collective in circumstances which may result in those contaminants entering water is a restricted discretionary activity (requiring resource consent).
Waikato Regional Council restricts its discretion over the following matters:

i. Cumulative effects on water quality of the catchment of the Waikato and Waipa Rivers.

ii. The diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens.

iii. Achieving the contaminant load reduction targets specified for each for subcatchment in Schedule 1C Table XX

iv. The matter set out in Schedule 1C Catchment Collectives.

v. The term of the resource consent. Generally a minimum 15 years.

vi. The monitoring, record keeping, reporting and information provision requirements for the holder of the resource consent.

vii. The time frame and circumstances under which the consent conditions may be reviewed.

viii. The matters addressed by Schedules A and C and the Nitrogen Reference Point being:
   1. In conformance with Schedule B; or
   2. Determined through use of proxy farm systems to approximate the nitrogen reference for the catchment collective; or
   3. Through modelling a series of collective mitigations that are estimated sufficient to meet the load limit targets, in accordance with the criteria in schedule 1C.

Notification:
Consent applications will be considered without notification, and without the need to obtain written approval of affected persons.

Rule 3.11.6 - Discretionary Activity Rule

a. The use of land for commercial vegetable production that does not meet one or more conditions of Rule 3.11.5.5, 3.11.5X or 3.11.5.XX is a discretionary activity.

(i) Where commercial vegetable production activity is proposed above the maximum area set out in Rules: 3.11.5.5 and 3.11.5X, it must be demonstrated that the outcome achieved will be losses of all four contaminants within sub-catchments that are equal to or greater than the increase from the commercial vegetable production activity.

Rule 3.11.5.7 - Non-Complying Activity Rule – Land Use Change
New commercial vegetable production provided for in Rules 3.11.5.X or 3.11.5.XX

Schedule B - Nitrogen Reference Point/Te Āpitihanga B – Te tohu ā-hauota

A property or enterprise with a cumulative area greater than 20 hectares (or any ~~property or enterprise used for~~ new commercial vegetable production exceeding the CVP land area cap) must have a Nitrogen Reference Point calculated as follows:

a. The Nitrogen Reference Point must be calculated by a Certified Farm Nutrient Advisor ~~to determine~~ by modelling the amount of nitrogen being leached from the property or enterprise during the relevant reference period specified in clause f), except for any land use change approved under Rule 3.11.5.7 where the Nitrogen Reference Point shall be determined through the Rule or 3.11.5.7 consent process. Or

b. For CVP the Nitrogen Reference Point for the catchment collectives and for assessing the discretionary or non-complying activity may be calculated using a proxy nitrogen leaching rate using the following representative rotations:

Rotation 1- Extensive

Rotation one was designed to represent the more extensive rotation of growing the major large scale crops. It is estimated that this rotation represents approximately half the area grown in the Lower Waikato. The rotation is as follows:

Potato (summer) > Onions > Carrots > Squash > Oats and Rye > Barley (grain) > Oats and Rye

Rotation 2 - Intensive

Rotation 2 is considered to be a more intensive rotation with the inclusion of more green crops. It is estimated that this rotation represents approximately 45% of the area grown in the Lower Waikato. The rotation is as follows:

Squash > Broccoli > Oats and Rye > Lettuce (summer) > Mustard > Onions > Oats and Rye > Potato (Winter).

Rotation 3 - Traditional Market Garden

The traditional market garden rotation was much more intensive and was designed to represent the sort of rotation grown in market gardens and was somewhat limited by the range of crops available. It is estimated that this rotation represents approximately 5% of the area grown in the Lower Waikato. The rotation is as follows:

Broccoli > Mustard > Lettuce > Cabbage > Mustard > Spinach > Cauliflower > Cabbage >Mustard.

c. The Nitrogen Reference Point shall be the highest modelled annual nitrogen leaching loss that occurred during a single year (being 12 consecutive months) within the reference period specified in clause f), except for an NRP calculated using the proxy rotations for commercial vegetable production in which case the Nitrogen Reference Point b) shall be defined by table 1, and c) shall be the average annual nitrogen leaching loss during the reference period.

d. The Nitrogen Reference Point under a) must be calculated using the current version of the OVERSEER® Model as the default model (~~or any~~ other models may be approved for use by the Chief Executive of the Waikato Regional Council, if justified on a case by case basis). The Nitrogen Reference Point must be updated using the initial reference data whenever a new version of the OVERSEER® Model, or any other approved model used to prepare the Nitrogen

Reference Point, is released, or, for the Nitrogen Reference Point under b) must adopt the nitrogen reference point for the appropriate proxy rotation.

e. The Nitrogen Reference Point under a) data shall comprise the data used by ~~electronic output file from~~ the OVERSEER® or other approved model to calculate the Nitrogen Reference Point, and where the OVERSEER® Model is used, it must be calculated using the OVERSEER® Best Practice Data Input Standards ~~2016~~ or replacement technical guidance that relate to the version of the OVERSEER® model being used, with the exceptions and inclusions set out in ~~Schedule B Table 1~~ a Waikato Regional Council Nitrogen Reference Point Guide. Where another approved model is used, it will conform to the data input standards as approved by the Chief Executive of the Waikato Regional Council.

f. The Nitrogen Reference Point Analysis (inputs and outputs) ~~and the Nitrogen Reference Point data~~ must be ~~provided~~ published to Waikato Regional Council within the period ~~1 September 2018~~ 1 May 2020 to ~~31 March 2019~~ 30 November 2020.

g. The Nitrogen Reference Period under a) ~~reference period~~ is ~~the two financial years covering~~ 1 July 2014~~/2015 and 2015/~~ to 30 June 2016, except for commercial vegetable production in which case the reference period is 1 July 2006 to 30 June 2016.

h. The following records (where relevant to the ~~land use undertaken on the property or enterprise~~ calculation and compliance auditing of the Nitrogen Reference Point) must be retained for the life of the plan and/or relevant consent, whichever is longer, and provided to Waikato Regional Council at its request:
   i. ~~Stock numbers as recorded in annual accounts together with stock sale and purchase invoices~~Records of stock numbers and stock classes, births and deaths, stock movements on and off the property, grazing records and transport records;
   ii. ~~Dairy production data~~Total annual milk solids as stated in the milk supply statement;
   iii. ~~Invoices for fertiliser applied to the land~~Records of fertiliser type and amount, including annual accounts, and any records of fertiliser application rates and placement;
   iv. Quantity and type of ~~Invoices for~~ feed supplements ~~sold or~~ purchased and used on the property;
   v. Water use records for irrigation (to be averaged over 3 years or longer) in order to determine irrigation application rates (mm/ha/month per irrigated block) and areas irrigated;
   vi. Crops grown on the ~~land~~ property (area and yield), quantities of each crop consumed on the property, and quantities sold off farm; and
   ~~vii. Horticulture crop diaries and NZGAP records; and~~
   viii. The Nitrogen Reference Point Data as defined in Schedule B clause d; and
   ix. Soil test data – including anion storage capacity; and
   x. A map which shows property boundaries, block management areas, retired/non-productive areas and areas used for effluent irrigation.

i. For new CVP calculated under rule 3.11.5.X, the total area must not exceed the maximum land area (Table 1).

j. The NRP for land leaving commercial vegetable production is to be calculated based on the average activity in the sub-catchment during the baseline time, on similar land (ie LUC I and LUC II) and the associated N load (kg) of that activity. I.e. sum up the baseline nitrogen load (kg) for all the potential CVP land (ie LUC I and LUC II) in each sub-catchment, subtract the load and area associated with baseline vegetable growing. Redistribute the remaining nitrogen load

across all the potential CVP land (ie. LUC I and LUC II). That becomes the baseline nitrogen yield (kg/ha) that remains on the land when a commercial vegetable production activity departs a site.

Table 1 Additional CVP sub catchment area limits

*The yields and areas calculated in Table 1 rely on the leaching assumptions in the NIWA modelling for PC1.

Sub-catchments with suitable CVP growth areas	Additional CVP area for 1 % total sub-catchment N load increase *(ha)
Awaroa (Rotowaro) at Harris/Te Ohaki Br	9
Awaroa (Waiuku)	6
Firewood	6
Kirikiriroa	4
Mangaonua	25
Mangatangi	33
Mangatawhiri	4
Mangawara	167
Matahuru	21
Ohaeroa	6
Ohote	12
Opuatia	14
Waerenga	3
Waikato at Bridge St Br	19
Waikato at Horotiu Br	19
Waikato at Huntly-Tainui Br	78
Waikato at Mercer Br	101
Waikato at Narrows	41
Waikato at Port Waikato	70
Waikato at Rangiriri	15
Waikato at Tuakau Br	28
Waipa at SH23 Br Whatawhata	134
Waipa at Wainaro Rd Br	40

Schedule 1B Farm Environment Plan

Insert as new parts to the schedule a tailored approach to commercial vegetable production and catchment collective management.

Schedule 1B - Requirements for Farm Environment Plans for commercial vegetable production enterprises

1. A Farm Environment Plan shall be prepared in accordance with the requirements of A below. The Farm Environment Plan shall be certified as meeting the requirements of **(A)** by a Certified Farm Environment Planner (commercial vegetable production).

2. The construction of a farm plan does not require duplication of material within existing farm environment plans that are considered sufficient for purpose by a Certified Farm Environment Planner (commercial vegetable production).

3. Farm plans are not required to duplicate material provided to Waikato Regional Council for the purpose of complying with other rules in the plan.

4. Farm Plans will not be incorporated into consent conditions as a whole; but matters of control or discretion will include relevant actions committed to by the consent holder.

5. The Farm Environment Plan shall identify key risk areas for the discharge of sediment, nitrogen, phosphorus and microbial pathogens, and identify actions, and timeframes for those actions to be completed, in order to reduce the diffuse discharges of these contaminants where practicable.
The Farm Environment Plan must clearly identify how any specified consent condition will be complied with.

(A) Farm Environment Plans shall contain as a minimum:

1. The name of the legal entity registered with the Waikato Regional Council.

2. Information provided by the Council from registration between 1 May 2020 and 30 November 2020.

3. A description of the enterprise, detailing the general rotational cropping system, properties owned, leased and otherwise farmed on over time. This will include the legal description for each parcel of land.

4. An assessment of the risk of diffuse discharge of sediment, nitrogen, phosphorus and microbial pathogens associated with the farming activities on the property, and the priority of those identified risks, having regard to subcatchment targets in Table 3.11-1 and the priority of lakes within the subcatchment.

As a minimum, the risk assessment shall include:

a. A risk assessment for nutrient discharges that is approved by a Certified Farm Environment Planner (commercial vegetable crops). The risk assessment should be equivalent to the process outlined in Section 4 of the Horticulture New Zealand Code of Practice for Nutrient Management Version 1.0 August 2014.

b. A risk assessment for soil conservation purposes, that is approved by a Certified Farm Environment Planner (commercial vegetable crops). The risk assessment

should be equivalent to the process outlined in Section 1 of the Horticulture New Zealand Erosion &Sediment Control Guidelines for Vegetable Production Version 1.1 June 2014.

c. If manures are used, undertake a microbiological discharge risk assessment.

5. If stock are present on land managed within the enterprise, provisions of Schedule 1 relating to the farming of animals apply. If stock are present a risk assessment for stock related discharges must be undertaken.

6. A schedule of mitigation actions and target completion dates derived from the risk assessments undertaken in 4 and 5 above.

7. ***Vegetable Growing Minimum Standards*** Farm environment plans required under Rule 3.11.5.5, 3.11.5.X, or 3.11.5.XX shall, in addition to the matters set out above, ensure the following matters are addressed.

No	Contaminant	Vegetable growing minimum standards
1	Nitrogen, Phosphorus	Annual soil testing regime, fertiliser recommendations by block and by crop
2	Nitrogen, Phosphorus	Tailored fertiliser plans by block and by crop
3	Nitrogen, Phosphorus	Both (1) and (2) prepared by an appropriately qualified person
4	Nitrogen, Phosphorus	Annual calibration of fertiliser delivering systems through an approved programme such as Spreadmark/Fertspread
5	Sediment, Phosphorus	As a minimum by block: an approved erosion and sediment control plan constructed in accordance with the Erosion and Sediment Control Guidelines for Vegetable Production June 2014
6	Nitrogen, Phosphorus	Documentation available for proof of fertiliser placement according to recommended instruction
7	Nitrogen, Phosphorus	Adoption and use of improved fertiliser products proved effective and available such as formulated prills, coatings and slow release mechanisms
8	Nitrogen, Phosphorus	Evidence available to demonstrate split applications by block/crop following expert approved practice relating to: • form of fertiliser applied • rate of application • placement of fertiliser • timing of application
9	Nitrogen	Maintain efficient irrigation to ensure yields and the export of nitrogen in crop are maximised.

Schedule 1C - Requirements for a subcatchment scale management plan applying to Rule 3.11.5.XX iv - Restricted Discretionary Activity Rule – The management of contaminants from farming activities by a catchment collective

A subcatchment scale management plan (SSMP) shall be prepared in accordance with the requirements below.

1) The (SSMP) must be approved by the Regional Council Chief Executive before an application under Rule 3.11.5.XX can be granted by the Council.

2) The SSMP must meet or exceed the expected reduction in discharges to freshwater that would be achieved through completing and implementing a farm or enterprise scale farm environment plan in accordance with Schedule 1 and Schedule 1b. The achievement in reduction of discharges must be equivalent when considered over all of the properties and enterprises managed by the SSMP.

3) The SSMP must be the responsibility of a legal entity that is accountable for achieving compliance with the conditions of a resource consent issued under Rule 3.11.5.XX.

4) The SSMP must be supported by a decision support tool that is able to be utilised as the accounting framework for the relevant subcatchment. The decision support tool must:

a) Calibrate discharges and hydrological flows to observed monitoring sites within the catchment. The calibration must at least achieve a "Satisfactory" criteria for a daily model with NSE – 0.6, % bias – +/- 25%[2] and the decision support tool must be capable of continuous upgrade and improvement.

b) Be capable of integrating with other subcatchment, freshwater management unit and catchment scale accounting systems.

c) Be able to measure mitigations for microbial, sediment, nitrogen and phosphorus discharges at all scales within the domain of the decision support tool to a standard approved by peer review agent approved by the Chief Executive of the Regional Council.

d) Be made available to the Council for use in assessing compliance with the load limit targets for the relevant subcatchment listed in Schedule 1C Table XX.

5) The SSMP must clearly identify how any specified consent condition will be complied with.

6) The SSMP shall contain as a minimum:

a) The name of the legal entity registered with the Waikato Regional Council. Information provided by the Council from registration between 1 May 2020 and 30 November 2020

b) A legal description of all properties and enterprises the legal entity described in Schedule 1C 3) above have legal authority to act on behalf of.

c) A description of the nature of enterprises, farms and properties and the domain of the SSMP.

d) An assessment of the risk of diffuse discharge of sediment, nitrogen, phosphorus and microbial pathogens associated with the activities within the SSMP domain, and the priority of those identified risks, having regard to sub-catchment load targets in Schedule 1C Table XX below.

e) A schedule of approved mitigation actions and target completion dates.

Schedule 1C Table XX Estimated Subcatchment unattenuated loads for the short-term water quality targets (excluding point sources)

[2] Based on that recommended by Moriasi et al 2007: http://hortnz.co.nz/assets/Uploads/moriasi-et-al-2007-modeleval.pdf

See attached updated Table 3.11-1 – hi-lighted column is the changes proposed by HortNZ

Additions to Glossary of Terms/Ngā Āpitihanga ki te Rārangi Kupu

Catchment collective: means a group of enterprises or properties in multiple ownership, where the owners of those enterprises or properties undertake farming activities and operate as a collective for the purposes of contaminant management.

Certified Farm Environment Planner (Commercial Vegetable Production): is a person or entity certified by the Chief Executive Officer of Waikato Regional Council and listed on the Waikato Regional Council website as a Certified Farm Environment Planner (Commercial Vegetable Production) and has as a minimum the following qualifications and experience:

a. Tertiary qualifications in agronomy or agricultural engineering
b. More than 3 years' experience working with commercial vegetable cropping systems
c. A certificate of competence approved by the Waikato Regional Council relating to the relevant aspects of environmental farm plan assessment

Commercial vegetable production: means the following vegetables grown in New Zealand for commercial purposes:

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

Enterprise/s: means one or more parcels of land (or parts of parcels of land) held in single or multiple ownership to support the primary production activities ~~undertaken principle land use or land which the principle land use is reliant upon,~~ and constitutes a single operating unit for the purposes of management. ~~An enterprise is considered to be within a sub-catchment if more than 50% of that enterprise is within the sub-catchment~~.

Definition - Fruit

Fruit: for the purpose of defining low intensity farming activities in Chapter 3.11 means the following fruit grown in New Zealand for commercial purposes including commercial processing):

(a) apples, avocados, babacos, berry crops, casanas, cherimoyas, citrus, feijoas, figs, guavas, kiwifruit, kiwiberries, loquats, passionfruit, pears, persimmons, quinces, sapotes, summerfruit (including apricots, cherries, nectarines, peaches, and plums), and tamarillos; and
(b) the hybrids of the fruit listed in paragraph (a).

CVP Land area cap: The sum of the maximum land area in CVP period and the additional CVP area

Low Intensity Horticulture: Includes asparagus, vegetables grown under cover, legumes grown in arable or pasture rotations, all berries not included in the definition of vegetables, and fruit.

Subcatchment Scale Management Plan (SSMP): means a subcatchment scale plan for that sets out actions and responsibilities for a Catchment Collective (representing all or part of a subcatchment)

for the purposes of contaminant management that meets or exceeds the expected reduction in discharge to freshwater that would otherwise be achieved through a Farm Environment Plan.