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

~~Notified version (October 2016)~~

Officer's "Tracked Changes" Version Hearing Block 1, 2 and 3 Recommendations Only

Red tracked changes are insertions or deletions due to Variation 1

Black tracked changes are insertions or deletions recommended by the Council Officers

Black tracked changes are insertions or deletions recommended by Hort NZ

Important:

1. ***Relevant pages only (other pages will be addressed through future recommendations)***
2. ***In case of any conflicts, errors or omissions, the Section 42A Report prevails.***

3.11.3 Policies/Ngā Kaupapa Here

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

Reduce ~~Manage and require reductions in~~[1] catchment-wide and[2] sub-catchment~~-wide~~ diffuse[3] discharges of nitrogen, phosphorus, sediment and microbial pathogens, by:

a1. Requiring all farming activities to operate at Good Farming Practice, or better; and[4]

a2. Establishing, where possible, a Nitrogen Reference Point for all properties or enterprises; and[5]

a. Enabling activities with a low level of contaminant discharge to water bodies ~~provided those discharges do not increase~~[6]; and

b. Requiring farming activities with moderate to high levels of contaminant discharge to water bodies to reduce their discharges proportionate to the amount of (2016) discharge and the water quality improvements required in the sub-catchment[7]; and

b1. Calculating the 75th percentile and 50th percentile nitrogen leaching values and requiring farmers with a Nitrogen Reference Point greater than the 75th percentile to reduce nitrogen loss to below the 75th percentile and farmers with a Nitrogen Reference Point between the 50th and 75th percentile to demonstrate real and enduring reductions of nitrogen leaching, with resource consents specifying an amount of reduction or changes to practices required to take place; and[8]

b2. Where Good Farming Practices are not adopted, to specify controls in a resource consent that ensures contaminant losses will be reducing;[9]

b3. Except as provided for in Policies [1(a) and], Policy 3, 16, generally granting only those land use and discharge consent applications that demonstrate clear and enduring reductions in diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens; and[10]

b4. Except as provided for in Policies [1(a) and], Policy 3, Policy 16, generally not granting land use consent applications that involve a change in the use of the land, or an increase in the intensity of the use of land, unless the application demonstrates clear and enduring reductions in diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens; and[11]

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

Comment [VH1]: VH EIC

Comment [VH2]: VH EIC

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

Reduce ~~Manage and require reductions in~~[12] catchment-wide and[13] sub-catchment~~-wide~~[14] diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens from farming activities on properties and enterprises, through Farm Environment Plans[15] that:

a1. Set out clear, specific and timeframed minimum standards for Good Farming Practice; and[16]

a. Take ~~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~~

[1] DoC PC1-10643
[2] WRC V1PC1-1497
[3] Fert NZ PC1-9707, Federated Farmers V1PC1-162
[4] Dairy NZ PC1-10196
[5] Hort NZ PC1-10051, Hira Bhana and Co Ltd PC1-4020 (shifted from Pol 2 with modifications)
[6] Beef and Lamb PC1-12576
[7] Beef and Lamb PC1-12711 (shifted from Pol 2 with modifications)
[8] C and G Tierney PC1-7717, Sinclair Family Trust PC1-6180, Federated Farmers V1PC1-357
[9] Consequential to DairyNZ PC1-10196
[10] DoC PC1-71759
[11] DoC PC1-71759
[12] DoC PC1-10643
[13] WRC V1PC1-1497
[14] Consequential to WRC V1PC1-1497
[15] Federated Farmers V1PC1-172
[16] Ballance PC1-6862, FANZ PC1-9712

~~a Farm Environment Plan either associated with a resource consent, or in specific requirements established by participation in a Certified Industry Scheme~~[17]; and

b. Undergo ~~Requiring~~ the same level of rigour in developing, monitoring and auditing ~~of mitigation actions on the land that is~~ set out in a Farm Environment Plan, whether the consent holder is a member of a Certified Sector Scheme or not ~~it is established with a resource consent or through Certified Industry Schemes~~[18]; and

b2. Are flexible and able to be updated so that continuous improvement, new technologies and mitigation practices can be adopted, such that diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens further reduce over time.[19]

~~c. Establishing a Nitrogen Reference Point for the property or enterprise; and~~[20]

~~d. Requiring the degree of reduction in diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens to be proportionate to the amount of current discharge (those discharging more are expected to make greater reductions), and proportionate to the scale of water quality improvement required in the sub-catchment; and~~[21]

~~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.~~[22]

Policy 3: ~~Tailored approach to r~~ ~~Reducing~~ 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

Comment [VH3]: VH EIC

Provide for commercial vegetable production ~~while reducing~~ Manage and require reductions in ~~diffuse discharges of~~ including the flexibility to undertake crop rotations on changing parcels of land while requiring reductions in diffuse discharges from existing CVP and managing nitrogen, phosphorus, sediment and microbial pathogens for new CVP by: ~~from commercial vegetable production through a tailored, property or enterprise specific approach where:~~

a. ~~Enabling commercial vegetable production activities, Flexibility is provided including the flexibility to undertake crop rotations on changing parcels of land for commercial vegetable production, within sub-catchments, while reducing average contaminant discharges over time~~ aAdopting sector-based initiatives and other mitigation measures to progressively reduce losses of nitrogen, phosphorus, sediment and microbial pathogens; ~~and~~

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

c. Establishing~~s~~ baselines for each property or enterprise that define: ~~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 ~~is~~ for a proxy 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) ~~the nitrogen and phosphorus surpluses (ie total applied nutrient inputs, less crop uptake) for each commercial vegetable production crop; and~~ A proxy nitrogen leaching load associated with a rotation; and

~~(iii) sediment control measures; Establishing a Nitrogen Reference Point for each property or enterprise; and~~

Establishing sub-catchment and FMU baselines that define:

(i) Load associated with the proxy loads for 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.
(iii) The proxy load associated with the CVP area is less than the FMU load limit accounting for any consents that have already been granted.

[17] South Waikato District Council PC1-12522
[18] Huirimu Farms Ltd PC1-5909, Ata Rangi PC1-6244, Southern Pastures Limited Partnership PC1-11197
[19] Federated Farmers V1PC1 -175
[20] Hort NZ PC1-10051, Hira Bhana and Co Ltd PC1-4020 (shifted to Pol 1 with modifications)
[21] Beef and Lamb PC1-12711 (shifted to Pol 1 with modifications)
[22] G and J Jeffries PC1-12802

(iv) The proxy load associated with the CVP area is less than the sub catchment load limit accounting for any consents that have already been granted.

~~ce~~. ~~Establishing a Nitrogen Reference Point for each property or enterprise; and~~ A nitrogen reference point is established for land no longer utilised for commercial vegetable production.

~~df~~. ~~A 10% decrease in the diffuse discharge of nitrogen and~~ Enabling commercial vegetable production that ~~clearly demonstrates a tailored reduction in the~~ manages diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens ~~as measured against the baselines identified in b above of all contaminants~~ within baselines and through adherence to Good Farming Practice, Farm Environment Plans and relevant minimum standards; ~~is achieved across the sector through the implementation of Best or Good Management Practices;~~ and

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

~~f. Commercial vegetable production enterprises that reduce nitrogen, phosphorus, sediment and microbial pathogens are enabled; and~~

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

~~h. Providing for resource consents for enterprises to encompass multiple properties within a single sub-catchment, provided that:~~

~~(i) a to d above are met; and~~

~~(ii) There is clear accounting against contaminant baselines across the multiple properties, including on any land that is no longer used for commercial vegetable production, such that sub-catchment wide diffuse discharges progressively decrease.~~ [23]

g. Providing for resource consents for commercial vegetable production activity that encompasses multiple properties within a sub-catchment or Freshwater Management Unit, provided that a) to e) above are met.

h. Offsetting may be proposed for commercial vegetable production activity above the maximum area set out in b) and c), 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.

3.11.5 Rules/Ngā Ture

Delete all references to "enterprise" from the rules. [24]

Insert Commercial Vegetable Production into the change of use of land conditions of Rules 3.11.5.1A, 3.11.5.2A (if included), 3.11.5.3 (if included), and 3.11.5.4, such that it reads:

X. There has been less than a cumulative net total of 4.1 hectares of change in the use of land from that which was occurring at 22 October 2016 within a property from:
   1. Woody vegetation to farming activities; or
   2. Any farming activity other than dairy farming to dairy farming; or
   3. Any farming activity to Commerical Vegetable Production [25]

Insert No commercial vegetable production occurs as a condition of Rule 3.11.5.4.

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

~~**Rule 3.11.5.1 - 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:~~

[23] Federated Farmers PC1-10817, Federated Farmers V1PC1-176, Balle Bros PC1-11407, Charion Investment Trust PC1-7691, DoC PC1-10653, Hira Bhana PC1-4145, Hort NZ PC1-10052

[24] P Brodie PC1-2889, Waitomo DC PC1-10312, G Kilgour PC1-1884

[25] Fonterra V1PC1-757, Waipa DC PC1-3249, Waitomo DC PC1-10312

~~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~~

~~The property area 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.~~[26,27]

3.11.5.1A Interim Permitted Activity Rule – Farming

Rule 3.11.5.1A – Interim Permitted Activity Rule – Farming

The use of land for farming, which is not a permitted activity under Rule 3.11.5.2, is a permitted activity until:
1. The later of 1 September 2021 or 6 months after this Plan becomes operative, for properties in Priority 1 sub-catchments listed in Table 3.11-2, and all properties with a Nitrogen Reference Point greater than the 75th percentile nitrogen leaching value; and
2. The later of 1 March 2025 or 1 year after this Plan becomes operative for properties in Priority 2 sub-catchments listed in Table 3.11-2;[28] and
3. 1 January 2026 for properties in Priority 3 sub-catchments listed in Table 3.11-2;

subject to the following conditions:
1. The property is registered with the Council in conformance with Schedule A; and
2. Cattle, horses, deer and pigs are excluded from water bodies in conformance with Schedule C; and
3. ~~No commercial vegetable production occurs; and~~
4. A Nitrogen Reference Point is produced for the property in conformance with Schedule B; and
5. Full electronic access to Overseer or any other software or system that models or records diffuse contaminant losses for the farming land use authorised by this rule is granted to the Council; and[29]

6. There has been less than a cumulative net total of 4.1 hectares of change in the use of land from that which was occurring at 22 October 2016 within a property or enterprise from:
   1. Woody vegetation to farming activities; or
   2. Any farming activity other than dairy farming to dairy farming; ~~or~~
   3. ~~Any farming activity to Commerical Vegetable Production~~[30]

Comment [VH4]: VH CK EIC

Comment [VH5]: VH CK EIC

3.11.5.2 Permitted Activity Rule – ~~Other~~ Low intensity farming ~~activities~~/Te Ture mō ngā Mahi e Whakaaetia ana – Ētehi atu mahi i runga pāmu

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

The use of land for farming ~~activities (excluding commercial vegetable production) and the associated diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens onto or into land in circumstances which may result in those contaminants entering water where the property area is greater than 4.1 hectares, and has more than 6 stock units per hectare or is used for arable cropping,~~[31] 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;

Comment [VH6]: CK and MS EIC

A. For all other properties:
   1. The property is registered with the Waikato Regional Council in conformance with Schedule A; and

[26] Fonterra V1PC1-757, Waipa DC PC1-3249, Waitomo DC PC1-10312
[27] H Oatway PC1-6524
[28] Beef + Lamb V1PC1-1719, J Craig PC1-9675, Drummon Dairy Holdings Ltd PC1-5652, K and A Reese PC1-7784
[29] WRC V1PC1-218
[30] Fonterra V1PC1-757, Waipa DC PC1-3249, Waitomo DC PC1-10312

[31] Fonterra V1PC1-757, Waipa DC PC1-3249, Waitomo DC PC1-10312

2. Cattle, horses, deer and pigs are excluded from water bodies in conformance with Schedule C ~~and Conditions 3(e) and 4(e) of this Rule~~; and

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

2B. No commercial vegetable production occurs; and

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

2D. No feedlots or sacrifice paddocks are used on the property; and

2E. No more than 5% of the land used for farming is used for cropping, including winter forage crops; and[32]

B~~3~~. ~~Where t~~The property area is less than or equal to 20 hectares; or~~:~~

~~a. The farming activities do not form part of an enterprise being undertaken on more than one property; and~~

~~b. Where the land is:~~

~~i. used for grazing livestock, the stocking rate of the land is no greater than the stocking rate of the land at 22 October 2016; or~~

~~ii. not used for grazing livestock, the land use has the same or lower diffuse discharges of nitrogen, phosphorus, sediment or microbial pathogens as the land use at 22 October 2016; and~~

~~c. Upon request, the landowner shall obtain and provide to the Council independent verification from a Certified Farm Environment Planner that the use of land is compliant with either (b)(i) or (b)(ii) above; and~~

~~d. Upon request from the Council, a description of the current land use activities shall be provided to the Council; and~~

~~e. Where the property or enterprise contains any of the water bodies listed in Schedule C, new fences installed after 22 October 2016 must be located to ensure cattle, horses, deer and pigs cannot be within three metres of the bed of the water body (excluding constructed wetlands and drains).~~[33]

C~~4~~. ~~Where t~~The property ~~or enterprise~~ area is greater than 20 hectares, and either:

1. The stocking rate of the land is less than 6 stock units per hectare; or

2. The only farming activity occurring on the property is the raising, training or housing of horses; or[34]

3. The stocking rate of the land is greater than 6 stock units but less than 10 stock units per hectare; and[35]

a. A Nitrogen Reference Point is produced for the property ~~or enterprise~~ in conformance with Schedule B; and

~~b. The diffuse discharge of nitrogen from the property or enterprise does not exceed either:~~

~~i. the Nitrogen Reference Point; or~~

~~ii. 15kg nitrogen/hectare/year;~~

~~whichever is the lesser, over the whole property or enterprise when assessed in accordance with Schedule B; and~~[36]

c No part of the property ~~or enterprise~~ over 15 degrees slope is cultivated; and ~~or~~

c1. No part of the property over XX degrees of slope is[37] grazed; and

d. No winter forage crops are grazed in situ; and

~~e. Where the property or enterprise contains any of the water bodies listed in Schedule C:~~

~~i. There shall be no cultivation within 5 metres of the bed of the water body; and~~

~~ii. New fences installed after 22 October 2016 must be located to ensure cattle, horses, deer and pigs cannot be within three metres of the bed of the water body (excluding constructed wetlands and drains); and~~[38]

f~~5~~. ~~For all properties greater than 4.1 hectares, f~~From ~~31 March 2019~~ 30 November 2020~~, in addition to the requirements of Schedule A,~~ the following information is ~~must be~~ provided to the Waikato Regional Council by 1 September each year:

a. The monthly average ~~Annual~~ stock numbers of each stock class from 1 July to 30 June in the following year; and

b. Tonnes and type of ~~Annual~~ fertiliser applied from 1 July to 30 June in the following year ~~use~~; and

c. Tonnes of and type of ~~Annual brought in~~ animal feed brought onto the property in the previous 12 months~~.~~; and[39]

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 Council; and[40]

h. Upon request, the landowner shall obtain and provide to the Council independent verification from a Certified Farm Environment Planner that the use of land is compliant with the conditions of this Rule within 20 working days of the request (unless otherwise agreed in writing by Council).[41]

[32] J Alcock and J Easton PC1-9217, L Ashton PC1-7032, G Gleeson PC1-6410
[33] P Hurley PC1-1088, Federated Farmers V1PC1-338
[34] G Kilgour PC1-1906, R Cave PC1-3900
[35] P Keeling PC1-5497, Fonterra V1PC1-765
[36] Fonterra V1PC1-765, Balle Bros Group PC1-11423, Hill Country Farmers Group PC1-7845
[37] Hill Country Farmers PC1-7845
[38] G Holmes PC1-4693, Huirimu Farms Ltd PC1-5908, A McGovern PC1-8319
[39] Consequential to Ballance PC1-6570, FANZ PC1-10642
[40] WRC V1PC1-218

OPTION

3.11.5.2A Controlled Activity Rule – Medium intensity farming/

Rule 3.11.5.2A - Controlled Activity Rule – Medium intensity farming

The use of land for farming, which is not a permitted activity under Rules 3.11.5.1A to 3.11.5.2, is a controlled activity subject to the following conditions:

1. The property is registered with the Council in conformance with Schedule A; and
2. A Nitrogen Reference Point is produced for the property in conformance with Schedule B; and
3. Cattle, horses, deer and pigs are excluded from water bodies in conformance with Schedule C; and
4. The farming activities do not form part of an enterprise; and
5. No commercial vegetable production occurs; and
6. Full electronic access to Overseer or any other software or system that models or records diffuse contaminant losses for the farming land use authorised by this rule is granted to the Council; and
7. A Farm Environment Plan has been prepared in conformance with Schedule 1 and has been approved by a Certified Farm Environment Planner, and is provided to the Council at the time the resource consent application is lodged; and
8. Either:
    a. The Nitrogen Refernce Point is not exceeded; or
    b. The stocking rate of the land is no greater than 18 stock units per hectare and has not increased above the stocking rate during the Reference Period in Schedule B; and
6. There has been less than a cumulative net total of 4.1 hectares of change in the use of land from that which was occurring at 22 October 2016 within a property or enterprise from:
    1. Woody vegetation to farming activities; or
    2. Any farming activity other than dairy farming to dairy farming; or
    3. Any farming activity to Commerical Vegetable Production

Waikato Regional Council reserves control over the following matters:

i. The content, compliance with and auditing of the Farm Environment Plan.
ii. The actions and timeframes to achieve Good Farming Practices or better in order to reduce the diffuse discharge of nitrogen, phosphorus, sediment or microbial pathogens to water or to land where they may enter water.
iii. For enterprises, the procedures and limitations, including Nitrogen Reference Points, to be applied to land that enters or leaves the enterprise.
iv. Where the Nitrogen Reference Point exceeds the 75th percentile nitrogen leaching value, actions, timeframes and other measures to ensure the diffuse discharge of nitrogen is reduced so that it does not exceed the 75th percentile nitrogen leaching value by 1 July 2026.
v. The term of the resource consent.
vi. The timeframe and circumstances under which the consent conditions may be reviewed.
vii. Procedures for reviewing, amending and re-approving the Farm Environment Plan.

[41] Shifted from within the rule ((3)(c)).

OPTION

3.11.5.3 ~~Permitted~~ Restricted Discretionary Activity Rule – Farming ~~activities~~ with a Farm Environment Plan under a Certified ~~Industry~~ Sector Scheme/Te Ture mō ngā Mahi e Whakaaetia ana – Ngā mahi i runga pāmu kua whai Mahere Taiao ā-Pāmu i raro i te Kaupapa ā-Ahumahi kua Whai Tohu

Rule 3.11.5.3 - ~~Permitted~~ Restricted Discretionary Activity Rule – Farming ~~activities~~ with a Farm Environment Plan under a Certified ~~Industry~~ Sector Scheme

~~Except as provided for in Rule 3.11.5.1 and Rule 3.11.5.2 t~~The use of land for farming ~~activities (excluding commercial vegetable production)~~ where the land use is registered to a Certified ~~Industry~~ Sector Scheme~~, 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~~ restricted discretionary activity subject to the following conditions:

1. The property is registered with the Waikato Regional Council in conformance with Schedule A; and
2. A Nitrogen Reference Point is produced for the property or enterprise in conformance with Schedule B; and
3. Cattle, horses, deer and pigs are excluded from water bodies in conformance with Schedule C; and
4. The Certified ~~Industry~~ Sector Scheme ~~meets the criteria set out in Schedule 2 and~~ has been approved by the Chief Executive Officer of the Waikato Regional Council as meeting the standards set out in Schedule 2; and
5. A Farm Environment Plan which has been prepared in accordance with Schedule 1 and has been approved by a Certified Farm Environment Planner, and is provided to the Waikato Regional Council at the time the resource consent application is lodged; and ~~as follows:~~
   ~~a. By 1 July 2020 1 March 2022 for properties or enterprises within Priority 1 sub-catchments listed in Table 3.11-2, and all properties or enterprises with a Nitrogen Reference Point greater than the 75th percentile nitrogen leaching value;~~
   ~~b. By 1 July 2023 1 March 2025 for properties or enterprises within Priority 2 sub-catchments listed in Table 3.11-2;~~
   ~~c. By 1 July 2026 for properties or enterprises within Priority 3 sub-catchments listed in Table 3.11-2; and~~

5a. Full electronic access to Overseer or any other software or system that records farm data and models or records diffuse contaminant losses for the farming land use authorised by this rule is granted to the Waikato Regional Council; and

5b. There have been less than a cumulative net total of 4.1 hectares of change in the use of land from that which was occurring at 22 October 2016 within a property or enterprise from:
   1. Woody vegetation to farming activities; or
   2. Any farming activity other than dairy farming to dairy farming; ~~or~~
   ~~3. Any farming activity to Commerical Vegetable Production~~

~~6. The use of land shall be undertaken in accordance with the actions and timeframes specified in the Farm Environment Plan; and~~

~~7. The Farm Environment Plan provided under Condition 5 may be amended in accordance with the procedure set out in Schedule 1 and the use of land shall thereafter be undertaken in accordance with the amended plan; and~~

~~8. A copy of the Farm Environment Plan amended in accordance with condition (7) shall be provided to the Waikato Regional Council within 30 working days of the date of its amendment.~~

Waikato Regional Council restricts its discretion to the following matters:

i. The content, compliance with and auditing of the Farm Environment Plan.
ii. The actions and timeframes to achieve Good Farming Practices or better in order to reduce the diffuse discharge of nitrogen, phosphorus, sediment or microbial pathogens to water or to land where they may enter water.
iii. The effects, including cumulatively, of diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens, particularly where the activity may lead to an increase in the discharge of one or more contaminants.
iv. For enterprises, the procedures and limitations, including Nitrogen Reference Points, to be applied to land that enters or leaves the enterprise.
v. Where the Nitrogen Reference Point exceeds the 75th percentile nitrogen leaching value, actions, timeframes and other measures to ensure the diffuse discharge of nitrogen is reduced so that it does not exceed the 75th percentile nitrogen leaching value by 1 July 2026.
vi. The term of the resource consent.
vii. The timeframe and circumstances under which the consent conditions may be reviewed.
viii. Procedures for reviewing, amending and re-approving the Farm Environment Plan.

Comment [VH7]: VH CK EIC

3.11.5.4 ~~Controlled~~ Restricted Discretionary Activity Rule – Farming activities with a Farm Environment Plan ~~not under a Certified Industry Scheme~~/Te Ture mō ngā Mahi ka āta Whakahaerehia – Ngā mahi i runga pāmu kua whai Mahere Taiao ā-Pāmu kāore i raro i te Kaupapa ā-Ahumahi kua Whai Tohu

Rule 3.11.5.4 – ~~Controlled~~ Restricted Discretionary Activity Rule – Farming ~~activities~~ with a Farm Environment Plan ~~not under a Certified Industry Scheme~~

~~Except as provided for in Rule 3.11.5.1 and Rule 3.11.5.2 t~~The use of land for farming ~~activities (excluding commercial vegetable production) where that land use is not registered to a Certified Industry Scheme, and the associated diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens onto or into land in circumstances which may result in those contaminants entering water~~, which is not a permitted activity under Rules 3.11.5.1A to 3.11.5.2, is a Restricted Discretionary ~~permitted~~[42] activity ~~until:~~

~~1. 1 January 2020 1 September 2021 for properties or enterprises in Priority 1 sub-catchments listed in Table 3.11-2~~
~~2. 1 January 2023 1 September 2024 for properties or enterprises in Priority 2 sub-catchments listed in Table 3.11-2;~~
~~3. 1 January 2026 for properties or enterprises in Priority 3 sub-catchments listed in Table 3.11-2;~~[43]

subject to the following conditions:

1. The property is registered with the Waikato Regional Council in conformance with Schedule A; and
2. A Nitrogen Reference Point is produced for the property or enterprise in conformance with Schedule B; and
3. No commercial vegetable production occurs; and
4. A Farm Environment Plan has been prepared in conformance with Schedule 1 and has been approved by a Certified Farm Environment Planner, or prepared under a Certified Sector Scheme, and is provided to the Council at the time the resource consent application is lodged; and[44]
5. Cattle, horses, deer and pigs are excluded from water bodies in accordance with Schedule C; and[45]
6. 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; and[46]
7. There have been less than a cumulative net total of 4.1 hectares of change in the use of land from that which was occurring at 22 October 2016 within a property or enterprise from:
   1. Woody vegetation to farming activities; or
   2. Any farming activity other than dairy farming to dairy farming; or
   ~~3. Any farming activity to Commerical Vegetable Production~~[47]

Comment [VH8]: VH CK EIC

~~After the dates set out in 1), 2) and 3) above the use of land shall be a controlled activity (requiring resource consent), subject to the following standards and terms:~~

~~a. A Farm Environment Plan has been prepared in conformance with Schedule 1 and has been approved by a Certified Farm Environment Planner, and is provided to the Waikato Regional Council at the time the resource consent application is lodged by the dates specified in I-III below; and~~
~~b. The property is registered with the Waikato Regional Council in conformance with Schedule A; and~~
~~c. A Nitrogen Reference Point is produced for the property or enterprise in conformance with Schedule B and is provided to the Waikato Regional Council at the time the resource consent application is lodged; and~~
~~d. Cattle, horses, deer and pigs are excluded from water bodies in conformance with Schedule C.~~

Waikato Regional Council restricts its discretion to the following matters: ~~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 actions and timeframes to achieve Good Farming Practices or better in order to ~~for undertaking mitigation actions that maintain or~~ reduce the diffuse discharge of nitrogen, phosphorus, sediment or microbial pathogens to water or to land where they may enter water.
iia. The effects, including cumulatively, of diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens, particularly where the activity may lead to an increase in the discharge of one or more contaminants.

[42] H G and S J Brooks PC1-86, Denzie, B PC1-3617
[43] Fonterra V1PC1-757, Waipa DC PC1-3249, Waitomo DC PC1-10312
[44] Previously part of rule (condition a) with addition of Certified Sector Schemes.
[45] Previously part of rule (condition d)
[46] WRC V1PC1-218
[47] Fonterra PC1-10644

iib. For enterprises, the procedures and limitations, including Nitrogen Reference Points, to be applied to land that enters or leaves the enterprise.

~~iii. The actions, timeframes and other measures to ensure that the diffuse discharge of nitrogen from the property or enterprise, as measured by the five year rolling average annual nitrogen loss as determined by the use of the current version of OVERSEER®, does not increase beyond the property or enterprise's Nitrogen Reference Point, unless other suitable mitigations are specified.~~

iv. Where the Nitrogen Reference Point exceeds the 75th percentile nitrogen leaching value, actions, timeframes and other measures to ensure the diffuse discharge of nitrogen is reduced so that it does not exceed the 75th percentile nitrogen leaching value by 1 July 2026.

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 timeframe and circumstances under which the consent conditions may be reviewed ~~or the Farm Environment Plan shall be amended~~.

viii. Procedures for reviewing, amending and re-approving the Farm Environment Plan.

ix. Information to be provided to show that the property is being managed in a way that would not cause an increase in loss of contaminants, which may include annual Overseer modelling for the property or enterprise, or information on matters such as stocking rate, fertiliser application, imported feed and cropping

~~**Dates:**~~

~~I. For Priority 1 sub-catchments, and properties with a Nitrogen Reference Point of greater than 75th percentile nitrogen leaching value, by 1 July 2020~~

~~II. For Priority 2 sub-catchments, by 1 July 2023~~

~~III. For Priority 3 sub-catchments, by 1 July 2026~~

~~**Notification:**~~

~~Consent applications will be considered without notification, and without the need to obtain written approval of affected persons.~~[48]

3.11.5.5 ~~Controlled~~ ~~Restricted Discretionary~~ 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

Comment [VH9]: VH MS EIC

Rule 3.11.5.5 - ~~Controlled~~ ~~Restricted Discretionary~~ 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~~ ~~restricted discretionary~~ 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~~ 1 September 2021 or a date 6 months after the plan becoming operative, from which date it shall be a controlled activity ~~(requiring resource consent)~~ subject to the following conditions ~~standards and terms~~:

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

~~b. A Nitrogen Reference Point is produced for the property or enterprise in conformance with Schedule B and provided to the Waikato Regional Council at the time the resource consent application is lodged; and~~

b. 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~~

c. The following information, relating to the land used by the applicant for commercial vegetable production each year in the period 1 July ~~2011~~ 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. Quantification of nitrogen ~~and phosphorus surpluses for each commercial vegetable production crop~~ benchmarks utilising a model or the most representative proxy farm system identified in the FEP Schedule aggregated at a sub-catchment; and FMU scale; and

iv. a description of sediment control measures; and

[48] Forest and Bird PC1-8208

~~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~~

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 ~~properties enterprise~~ commercial vegetable production enterprise that was used for commercial vegetable production during the period 1 July ~~2006 2011~~ 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~~

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

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
   iii. That losses of nitrogen, phosphorus and sediment that do not exceed the maximum annual losses that were occurring during the ~~5~~ 10 years up to 2016; 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[49]

~~Waikato Regional Council restricts its discretion to the following matters:~~ ~~Matters of Control~~ Matters of Control
~~Waikato Regional Council reserves control over the following matters:~~ 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. ~~for undertaking mitigation actions that maintain or reduce the diffuse discharge of nitrogen, phosphorus or sediment to water or to land where those contaminants may enter water, including provisions to manage the effects of land being retired from commercial vegetable production and provisions to achieve Policy 3(d).~~
~~iv. The actions and timeframes to ensure that the diffuse discharge of nitrogen does not increase beyond the Nitrogen Reference Point for the property or enterprise.~~
v. The term of the resource consent.
vi. The monitoring, record keeping, reporting, contaminant accounting and information provision requirements for the holder of the resource consent to demonstrate and/or monitor compliance with any resource consent and the Farm Environment Plan.
vii. The time frame and circumstances under which the consent conditions may be reviewed.
viii. Procedures for reviewing, amending and re-certifying the Farm Environment Plan.
ix. The procedures and limitations, including Nitrogen Reference Points, to be applied to land that leaves the commercial vegetable growing activities.

Notification:

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

~~**Advisory note:** Under section 20A(2) of the RMA a consent must be applied for within 6 months of 1 January 2020, namely by 1 July 2020.~~[50]

3.11.5.X – Restricted Discretionary Activity Rule – Commercial Vegetable Production: Provisional Growth (INSERT TE REO MAORI)

Comment [VH10]: VH MS EIC

The use of land for commercial vegetable production: provisional growth, is a restricted discretionary activity subject to the following conditions:

[49] WRC V1PC1-218
[50] J L and R J Ashby V1PC1-866, Balle Bros Group PC1-11426, G and J Jeffries PC1-7240, K McLauglin PC1-6018, Moerangi Trust PC1-4279, PLUG PC1-11178

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 as additional sub-catchment Nitrogen load not exceeding 1%, using proxy rotations on land suitable for additional CVP, as defined in Policy 3 ci, cii.

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;
(ii) Adherence to any relevant minimum standards; and
(iii) That losses of nitrogen that do not exceed the proxy farm system aggregated at a sub-catchment; and FMU scale.

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.

~~3.11.5.6 Restricted Discretionary Activity Rule – The use of land for farming activities/Te Ture mō ngā kōwhiringa mahi e herea ana – te whakamahinga o te whenua mō ngā mahinga pāmu~~

~~**Rule 3.11.5.6 - Restricted Discretionary Activity Rule – The use of land for farming activities**~~

~~The use of land for farming activities that does not comply with the conditions, standard or terms of Rules 3.11.5.1 to 3.11.5.5 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 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. The need for and the content of a Farm Environment Plan.~~
~~iv. The term of the resource consent.~~
~~v. The monitoring, record keeping, reporting and information provision requirements for the holder of the resource consent.~~
~~vi. The time frame and circumstances under which the consent conditions may be reviewed.~~
~~vii. The matters addressed by Schedules A, B and C.~~

~~**Notification:**~~

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

3.11.5.6A Discretionary Activity Rule

Rule 3.11.5.6A - Discretionary Activity Rule

a. The use of land for farming that does not meet one or more of [conditions (1) to (5a) of Rule 3.11.5.3 or] conditions (1) to (6) of Rule 3.11.5.4 is a Discretionary activity.[51]

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

(i) Where commercial vegetable production activity is proposed above the maximum area set out in Policy 3 b) and c), 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.

Comment [VH11]: VH CK EIC

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

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

The use of land for farming that does not meet [condition (5b) of Rule 3.11.5.3 or] condition (7) of Rule 3.11.5.4 is a non-complying activity.[52]

New commercial vegetable production that does not meet condition 3.44.5.6A(b)(i) is a non-complying activity.

Comment [VH12]: CK EIC

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

[51] Fonterra PC1-10506
[52] Fonterra V1PC1-757, Waipa DC PC1-3249, Waitomo DC PC1-10312

~~1. Woody vegetation to farming activities; or~~
~~2. Any livestock grazing other than dairy farming to dairy farming; or~~
~~3. Arable cropping to dairy farming; or~~
~~4. Any land use to commercial vegetable production except as provided for under standard and term g. of Rule 3.11.5.5 is a non-complying activity (requiring resource consent) until 1 July 2026.~~

~~**Notification:**~~

~~Consent applications will be considered without notification, and without the need to obtain written approval of affected persons, subject to the Council being satisfied that the loss of contaminants from the proposed land use will be lower than that from the existing land use.}~~[53]

3.11.5.8 Permitted Activity Rule – Authorised Diffuse Discharges

The diffuse discharge of nitrogen, phosphorus, sediment and or microbial contaminants from farming onto or into land in circumstances that may result in a contaminant entering water that would otherwise contravene section 15(1) of the RMA is a permitted activity, provided the following conditions are is met:

1. the land use activity associated with the discharge is authorised under Rules 3.11.5.1 to 3.11.5.7; and
2. the discharge of a contaminant is managed to ensure that after reasonable mixing it does not give rise to any of the following effects on receiving waters:
   (a) any conspicuous oil or grease films, scums or foams, or floatable or suspended materials; or
   (b) any conspicuous change in the colour or visual clarity; or
   (c) the rendering of fresh water unsuitable for consumption by farm animals; or
   (d) any significant adverse effects on aquatic life.[54]

3.11.5.9 Non-Complying Activity Rule – Unauthorised Diffuse Discharges

The diffuse discharge of nitrogen, phosphorus, sediment and or microbial contaminants from farming onto or into land in circumstances that may result in a contaminant entering water that would otherwise contravene section 15(1) of the RMA that does not meet one or more of the conditions of Rule 3.11.5.8 is a non-complying activity. [55]

[53] Forest and Bird PC1-8214
[54] Ata Rangi PC1-11127, Southern Pastures Limited Partnership PC1-11070
[55] Ata Rangi PC1-11127, Southern Pastures Limited Partnership PC1-11070

Schedule A - Registration with Waikato Regional Council/Te Āpitihanga A – Te rēhita me te Kaunihera ā-Rohe o Waikato

Properties with an area greater than ~~2 hectares~~ 4.1 hectares[56] (excluding urban properties) must be registered with the Waikato Regional Council in the following manner:

1. Registration must occur between ~~1 September 2018~~ 1 May 2020 and ~~31 March 2019~~ 30 November 2020.
2. Registration information set out in clause 5, and where relevant in clause 6, below must be provided.
3. Proof of registration must be provided to the Waikato Regional Council within 7 working days of a request by ~~to the~~ Waikato Regional Council being made (unless otherwise agreed in writing by Council) ~~if requested by the Council~~.[57]
4. Registration information must be updated by the new owner of a property within 30 working days of the new owner taking possession of the property, or otherwise at the request of the Waikato Regional Council.
5. All ~~property~~ owners must provide:

a. The following information in respect of the ~~land~~ property[58] owner, and the person responsible for using the land (if different from the ~~land~~ property owner):
   i. Full name.
   ii. Trading name (if applicable, where the owner is a company or other entity).
   iii. Full postal and email address.
   iv. Telephone contact details.

   b. Legal description ~~of the property as per the~~ and certificate(s) of title references (computer freehold registers) for all of the land in the property.[59]
   c. Physical address of the property.
   d. A description of the land use activity or activities undertaken on the property as at 22 October 2016, including the land area of each activity.
   e. The total land area of the property.
   f. Where the land is used for grazing, and no NRP is required under this Plan,[60] the annual average and maximum[61] stocking rate of animals grazed on the land.
   g. If the property forms part of an enterprise, the name of that enterprise.[62]

6. Properties that graze livestock must also provide a map showing~~:~~

~~a. The~~ the location of:
   i. Property boundaries; and
   ii. Water bodies listed in Schedule C for stock exclusion within the property boundary and fences adjacent to those water bodies; and
   iii. Livestock crossing points over those water bodies and a description of any livestock crossing structures.

[56] WRC PC1-3536
[57] WRC PC1-3536
[58] WRC PC1-3536
[59] Waipa DC PC1-3225
[60] WRC V1PC1-216
[61] J Liefting PC1-7166
[62] Waipa DC PC1-3225

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

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

a. The Nitrogen Reference Point must be calculated by a Certified Farm Nutrient Advisor ~~to determine~~by modelling the amount of nitrogen being leached from the property or enterprise during the relevant reference period specified in clause f), except for any land use ~~change~~ approved under Rules 3.11.5.6 or 3.11.5.7 where the Nitrogen Reference Point shall be determined through the Rule 3.11.5.6 or 3.11.5.7 consent process.or

b. For CVP the Nitrogen Reference Point may be calculated by matching the crop rotation during the relevant reference period specified in clause g), with a proxy nitrogen leaching rate for the relevant location provided in Table 1.

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 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~~ most recent version of the OVERSEER® Model as the default model (~~or any~~ other models may be approved for use by the Chief Executive of the Waikato Regional Council, if justified on a case by case basis). The Nitrogen Reference Point must be updated using the initial reference data whenever a new version of the OVERSEER® Model, or any other approved model used to prepare the Nitrogen Reference Point, is released, or, for the Nitrogen Reference Point under b) must adopt the nitrogen reference point for the appropriate proxy rotation provided in Table X

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 2011~~ 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 NRP for the new area must be calculated with using method a) or b), and the total area must not exceed the maximum land area calculated as additional sub-catchment Nitrogen load not exceeding 1% (Table 2), using proxy rotations on land suitable for additional CVP, as defined in Policy 3 ci, cii.

j. The NRP for land leaving commercial vegetable production is to be calculated based on the average activity in the sub-catchment at that 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.

Comment [VH13]: MS EIC

Comment [VH14]: Note this is a change from MS EIC for clarity.

Comment [VH15]: Note this is a change from MS EIC for clarity.

Advice note: For the avoidance of doubt, financial information contained within the above records may be redacted (blacked out) prior to it being provided to Waikato Regional Council.

Table 1 CVP proxy limits
*the default for all rotations used in the PC1 NIWA modelling, (based on Ford 2014), relate to the additional yields and areas presented in table 2. Table 1 will be updated with proxy yields for representative rotations calculated in APSIM.

**The table provides a proxy leaching yield for each subcatchment, the APSIM modelling undertaken to develop the proxy may develop more than one yield per subcatchment to account for soils and climate, and may develop more than three representative rotations.

	NIWA Modelling for PC1*			To be developed to replace NIWA data as better information becomes available**				
Subcatchment	N load per catchment	CVP Proxy N load	CVP N Loss	N load per catchment	CVP Proxy N load	Market Garden Rotation N loss	Leafy Greens Rotation N loss	Root Veg Rotation N loss
	t N/y	(kg/N/yr)	(kg N/ha)	t N /y	N load (kg/N/yr)	(kg N/ha)	(kg N/ha)	(kg N/ha)
Pueto	148	754	66					
Waikato at Ohaaki	301	8626	66					
Waikato at Ohakuri	821	0	0					
Torepatutahi	246	0	0					
Mangakara	24	0	0					
Waiotapu at Homestead	236	0	0					
Kawaunui	32	0	0					
Waiotapu at Campbell	48	0	0					
Otamakokore	76	0	0					
Whirinaki	13	0	0					
Waikato at Whakamaru	487	0	0					
Waipapa	154	1658	67					
Tahunaatara	293	0	0					
Mangaharakeke	46	0	0					
Waikato at Waipapa	719	0	0					
Mangakino	222	0	0					
Mangamingi	116	0	0					
Whakauru	100	0	0					
Pokaiwhenua	571	0	0					
Little Waipa	299	0	0					
Waikato at Karapiro	1013	21221	66					
Karapiro	94	2358	66					
Waikato at Narrows	206	8135	66					
Mangawhero	99	3024	66					
Waikato at Bridge St Br	92	13154	66					
Mangaonua	130	5963	66					
Mangakotukutuku	55	65	65					

Comment [VH16]: MS EIC

Mangaone	106	7482	66					
Waikato at Horotiu Br	79	133	67					
Waitawhiriwhiri	36	0	0					
Kirikiriroa	18	0	0					
Waipa at Mangaokewa Rd	17	0	0					
Waipa at Otewa	224	0	0					
Mangaokewa	165	0	0					
Mangarapa	75	0	0					
Mangapu	236	0	0					
Mangarama	76	0	0					
Waipa at Otorohanga	301	0	0					
Waipa at Pirongia-Ngutunui Rd Br	977	10258	66					
Waitomo at Tumutumu Rd	33	0	0					
Waitomo at SH31 Otorohanga	45	0	0					
Moakurarua	210	0	0					
Puniu at Bartons Corner Rd Br	544	19938	66					
Puniu at Wharepapa	220	0	0					
Mangatutu	152	0	0					
Mangapiko	611	2210	66					
Mangaohoi	2	0	0					
Waipa at SH23 Br Whatawhata	612	8035	66					
Mangauika	4	0	0					
Kaniwhaniwha	116	0	0					
Waipa at Waingaro Rd Br	191	7005	66					
Ohote	57	794	65					
Firewood	27	0	0					
Waikato at Huntly-Tainui Br	316	5108	66					
Komakorau	424	1507	66					
Mangawara	695	0	0					
Waikato at Rangiriri	77	0	0					
Awaroa (Rotowaro) at Harris	51	0	0					
Awaroa (Rotowaro) at Sansons Br	35	0	0					
Waikato at Mercer Br	528	64292	66					
Whangape	338	0	0					
Whangamarino at Island Block Rd	134	13414	66					

Whangamarino at Jefferies Rd Br	117	1969	66					
Waerenga	17	0	0					
Matahuru	113	0	0					
Waikare	88	0						
Opuatia	71	6264	67					
Mangatangi	173	398	66					
Waikato at Tuakau Br	158	45034	66					
Ohaeroa	30	8094	66					
Mangatawhiri	21	0	0					
Whakapipi	102	65758	66					
Awaroa (Waiuku)	33	1766	66					
Waikato at Port Waikato	362	62522	66					

Table 2 Additional CVP sub catchment area limits

*The yields and areas calculated in table 2 rely on the leaching assumptions in the NIWA modelling for PC1. The CVP yield will be updated with appropriate yield for a proxy rotation. As improved information on leaching yield from other land uses becomes available this will be used to calculate the maximum subcatchment area corresponding to an increase in nitrogen load no greater than 1% of the subcatchment background load, the information for table 2 relies on table 1.

Sub-catchments with suitable CVP growth areas	NIWA Modelling for PC1*		To be developed to replace NIWA data as better information becomes available*	
	Additional N yield* from CVP (Baseline Yield,) (kg/N/ha)	**Additional CVP area for 1 % total sub-catchment N load increase * (ha)**	**Additional N yield* from CVP (Baseline Yield,) (kg/N/ha)**	**Additional CVP area for 1 % total sub-catchment N load increase * (ha)**
Awaroa (Rotowaro) at Harris/Te Ohaki Br	54	9		
Awaroa (Waiuku)	56	6		
Firewood	47	6		
Kirikiriroa	43	4		
Mangaonua	51	25		
Mangatangi	53	33		
Mangatawhiri	56	4		
Mangawara	42	167		
Matahuru	53	21		
Ohaeroa	53	6		
Ohote	50	12		
Opuatia	50	14		
Waerenga	51	3		
Waikato at Bridge St Br	48	19		
Waikato at Horotiu Br	42	19		

Waikato at Huntly-Tainui Br	40	78		
Waikato at Mercer Br	52	101		
Waikato at Narrows	50	41		
Waikato at Port Waikato	52	70		
Waikato at Rangiriri	50	15		
Waikato at Tuakau Br	56	28		
Waipa at SH23 Br Whatawhata	46	134		
Waipa at Wainaro Rd Br	48	40		

~~Table 1: Data input methodology for ensuring consistency of Nitrogen Reference Point data using the OVERSEER®Model~~[63]

~~OVERSEER®Parameter~~	~~Setting that must be used~~	~~Explanatory note~~
~~Farm model~~ ~~Pastoral and horticulture~~	~~To cover the entire enterprise including riparian, retired, forestry, and yards and races.~~ ~~The model is to include non-contiguous properties that are part of the enterprise that are in the same sub-catchment.~~ ~~If the farm (for example where dairy animals are grazed or wintered) is part of another farming business such as a drystock farm, the losses from those animals will be represented in the drystock farm's Overseer model.~~	~~To capture the "whole farm" in one Overseer® file, where possible, to truly represent nitrogen losses from farm in the catchment area.~~
~~Location~~ ~~Pastoral and horticulture~~	~~Select Waikato Region~~	~~This setting has an effect on climate settings and some animal characteristics and is required to ensure consistency.~~
~~Animal distribution – relative productivity pastoral only~~	~~Use "no differences between blocks" with the following exceptions:~~ ~~• Grazed pines or other woody vegetation. In this case use "Relative yield" and set the grazed pine blocks to 0.4 (40%).~~ ~~• Where the farm has a mixture of irrigated and non-irrigated areas. In this case use "Relative yield" and set the irrigated area to 1 (100%), and the non-irrigated areas to 0.75 (75%).~~	
~~Wetlands~~	~~Entered as Riparian Blocks~~	~~As per the 2016 OVERSEER® Best Practice Data Input Standards.~~
~~Stock number entry~~	~~Based on specific stock numbers only~~	~~To ensure consistency and accuracy of stock number inputs.~~
~~Animal weights~~	~~Only use OVERSEER® defaults – do not enter in weights and use the age at start setting where available (national averages).~~	~~Accurate animal weights are difficult to obtain and prove.~~
~~Block climate data~~	~~Only use the Climate Station tool~~ ~~For contiguous blocks use the coordinates from the location of the dairy shed or the middle of the farm~~	

[63] Ballance PC1-6570, FANZ PC1-10642, Beef and Lamb PC1-11506, Fonterra PC1-10517

	~~area (for non-dairy).~~ ~~For non-contiguous blocks use individual blocks' climate station coordinates.~~	
~~Soil description~~	~~Use Soil Order – obtained from S-Map or where S-Map is unavailable from LRI 1:50,000 data or a soil map of the farm.~~	~~To ensure consistency between areas of the region that have S-Map data and those that don't.~~
~~Missing data~~	~~In the absence of Nitrogen Referencing information being provided the Waikato Regional Council will use appropriate default numbers for any necessary inputs to the OVERSEER® model (such default numbers will generally be around 75% of normal Freshwater Management Unit^ average values for those inputs).~~	~~Some farms will not be able to supply data, therefore a default must be established.~~

Schedule C - Stock exclusion/Te Āpitihanga C – Te aukatinga o ngā kararehe

Except as provided by Exclusions I. ~~and II.~~ and III, cattle, horses, deer and pigs ~~stock~~[64] must be excluded from the water bodies listed in 6. ~~i. to iv.~~ below as follows:

1. The water bodies on land with a slope of up to X degrees[65] must be fenced to exclude cattle, horses, deer and pigs, unless those animals are prevented from entering the bed of the water body by a stock proof natural or constructed[66] barrier formed by topography or vegetation.

   Advice note: Clause 1 does not authorise the construction of fences or other barriers in the bed of a river or lake, or in a wetland.

2. New temporary, permanent or virtual[67] fences installed after 22 October 2016 must be located to ensure cattle, horses, deer and pigs will be excluded from the bed of the water body. The fences must be located at a distance of not less than ~~cannot be within one metre of the water body (excluding constructed wetlands).~~
   a. 1 metre from the outer edge of the bed for land with a slope of less than 15 degrees; and
   b. 3 metres from the outer edge of the bed for land with a slope between 15 and 25 degrees; and
   c. 10 metres from the outer edge of the bed for artificial or modified watercourses that are the full responsibility of a territorial authority or Waikato Regional Council for maintenance purposes.[68]
3. ~~Livestock~~ Cattle, horses, deer and pigs[69] must not ~~be permitted to~~[70] enter onto or pass across the bed of the water body, except when using a livestock crossing structure [OPTION TO ADD or when they are being supervised and actively driven across a water body in one continuous movement provided no more than one crossing per week occurs].

   Advice note: Clause 3 does not authorise the construction of stock crossing structures in the bed of a river or lake, or in a wetland.[71]

4. For land use authorised under Rules 3.11.5.1 or 3.11.5.2, clauses 1 and 2 must be complied with:
   a. By 1 July 2023 for properties ~~and enterprises~~ within Priority 1 sub-catchments listed in Table 3.11-2.
   b. By 1 July 2026 for properties ~~and enterprises~~ within Priority 2 and Priority 3 sub-catchments listed in Table 3.11-2.
5. For land use authorised under Rules [3.11.5.3,] 3.11.5.4 or 3.11.5.5, clauses 1 and 2 must be complied with by the date and in the manner specified in the property's ~~or enterprise's~~ Farm Environment Plan, which shall be within 3 years following the dates by which a Farm Environment Plan must be provided to the Council, or in any case no later than 1 July 2026.
6. Water bodies from which cattle, horses, deer and pigs must be excluded:
   a. The bed of a river (including any stream and modified river or stream) or artificial watercourse that is permanently or intermittently flowing [OPTION TO ADD and where the bed is predominantly unvegetated and comprises exposed fine sediment, sand, gravel, boulders or similar material or aquatic vegetation]; and
   b. The bed of any lake; and
   c. Any wetland, including a constructed wetland.
   ~~i. Any river that continually contains surface water.~~
   ~~ii. Any drain that continually contains surface water.~~
   ~~iii. Any wetland, including a constructed wetland.~~
   ~~iv. Any lake.~~[72]

Exclusions:

The following situations are excluded from clauses 1, 2 and ~~2~~3:

I. Where the entry onto or passing across the bed of the water body is by horses that are being ridden or led.

~~II. Where the entry onto or passing across the bed of the water body is by a feral animal.~~[73]

III. Constructed ponds or constructed wetlands in which deer or pigs wallow that are located at least 10m away from the bed of a water body and which are not connected by an overland flow path to a water body.

[64] Dairy Goat Co-Operative (N.Z) Ltd PC1-4135
[65] Beef and Lamb PC1-11507
[66] Fish and Game PC1-11022
[67] Ashby, J L and R J V1PC1-879, Beef and Lamb V1PC1-1724
[68] Cl. 16 to ensure consistency with Rule 4.2.18.1 of the WRP
[69] Dairy Goat Co-Operative (N.Z) Ltd PC1-4135, A and S Dudin PC1-4910, A and M Goddard PC1-2341
[70] Fonterra V1PC1-757, Waipa DC PC1-3249, Waitomo DC PC1-10312
[71] Beef and Lamb PC1-11507
[72] DoC PC1-11055
[73] G Kilgour PC1-1923, A McGovern PC1-8327, Waipapa Farms Ltd and Carlyle Holdings Ltd PC1-4716

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

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

Comment [VH17]: DF EIC

PART A – PROVISION OF FEP

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

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

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

PART B – FEP CONTENT

The FEP shall contain as a minimum:

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

2. A map(s) at a scale that clearly shows:
   a) The boundaries of the property or land areas being farmed;
   b) The boundaries of the main land management units or land uses on the property or within the farm enterprise;
   c) The location of any Schedule C waterbodies;
   d) The location of riparian vegetation and fences adjacent to water bodies;
   e) The location on any waterways where stock have access or there are stock crossings;
   f) The location of any critical source areas and hotspots for contaminant loss to groundwater or surface water; and
   g) The location(s) of any required actions to support the achievement of the objectives and principles listed in section 3.

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

3a – Management area: Whole farm

Objective 1
To manage farming activities according to good farming practice, and in a way that minimises the loss of contaminants from the farm.
Principles

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

3b – Management Area: Nutrient management

Objective 2
To minimise nutrient losses to water while maximising nutrient use efficiency.
Principles

4. Monitor soil phosphorus levels and maintain them at or below the agronomic optimum for the farm system.

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

Objective 3
To farm in accordance with the nitrogen management requirements of PC1
Principle
Either, where the property's NRP is ≤75th percentile:

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

Or, *where the property's NRP is > than the 75th percentile*

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

Or, where the property's NRP is calculated using a proxy limit

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

Comment [VH18]: DF EIC

3c – Management Area: Waterways

Objective 4
To minimise losses of sediment, microbial pathogens, phosphorus and nitrogen to waterways.
Principles

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

Objective 5
To exclude stock from waterbodies and minimise stock damage to the beds and margins of wetlands and riparian areas.
Principle

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

3d – Management Area: Land and soil

Objective 6
To minimise contaminant losses to waterways from soil disturbance and erosion.
Principles

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

3e – Management Area: Effluent

Objective 7
To minimise contaminant losses to waterways from farm animal effluent.
Principles

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

3f – Management Area: Water and irrigation

Objective 8
To operate irrigation systems efficiently and ensuring that the actual use of water is monitored and is efficient.
Principles

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

3g – Management Area: Commercial Vegetable Production

Objective 9
To grow commercial vegetables in accordance with the vegetable growing minimum standards
Principles
24. Manage soil in accordance with the HortNZ Erosion and Sediment Control Guidelines 2014.
25. Manage nutrients in accordance with the HortNZ Code of Practice for Nutrient Management 2014.
26. Maintain efficient irrigation to ensure yields and the export of nitrogen in crop are maximised.

Comment [VH19]: DF EIC

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

PART C – FEP REVIEW REQUIREMENTS

The FEP shall be reviewed by a Certified Farm Environment Planner for consistency with this schedule:
1. Prior to lodging a landuse consent application with the Council under rule 3.11.5.3 – 3.11.5.5 of PC1; and
2. Within 12 months of the granting of that consent application; and
3. In accordance with the review intervals set out in the conditions of that resource consent.

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

Comment [VH20]: DF EIC

The review shall be undertaken by re-assessing the FEP in accordance with the requirements set out in this schedule.
The results of the review shall be provided to the Waikato Regional Council, within 20 working days of the review due date.

PART D – FEP CHANGES

Unless otherwise required by the Waikato Regional Council in accordance with any conditions of the resource consent, changes can be made to the FEP without triggering the need for review by a CFEP, provided:
1. The farming activity remains consistent with Part B of this schedule
2. The change to the FEP does not contravene any mandatory requirement of the resource consent, or any requirement of the Regional Plan that is not already authorised.
3. The nature of the change is documented in writing and made available to any CFEP undertaking a review, or to the Waikato Regional Council, on request.

~~A Farm Environment Plan shall be prepared in accordance with the requirements of A below. The Farm Environment Plan shall be certified as meeting the requirements of A by a Certified Farm Environment Planner.~~

~~The Farm Environment Plan shall identify all sources of sediment, nitrogen, phosphorus and microbial pathogens, and identify actions, and timeframes for those actions to be completed, in order to reduce the diffuse discharges of these contaminants.~~

~~The Farm Environment Plan must clearly identify how specified minimum standards will be complied with.~~

~~The requirements set out in A apply to all Farm Environment Plans, including those prepared within a Certified Industry Scheme.~~

~~This schedule applies to all farming activities, but it is acknowledged that some provisions will not be relevant to every farming activity.~~

~~A. Farm Environment Plans shall contain as a minimum:~~

~~1. The property or enterprise details:~~

~~(a) Full name, address and contact details (including email addresses and telephone numbers) of the person responsible for the property or enterprise.~~

~~(b) Trading name (if applicable, where the owner is a company or other entity).~~

~~(c) A list of land parcels which constitute the property or enterprise:~~

~~(i) the physical address and ownership of each parcel of land (if different from the person responsible for the property or enterprise) and any relevant farm identifiers such as the dairy supply number, Agribase identification number, valuation reference; and~~
~~(ii) The legal description of each parcel of land.~~

~~2. An assessment of the risk of diffuse discharge of sediment, nitrogen, phosphorus and microbial pathogens associated with the farming activities on the property, and the priority of those identified risks, having regard to sub-catchment targets in Table 3.11-1 and the priority of lakes within the sub-catchment. As a minimum, the risk assessment shall include (where relevant to the particular land use):~~

~~(a) A description of where and how stock shall be excluded from water bodies for stock exclusion including:~~

~~(i) the provision of fencing and livestock crossing structures to achieve compliance with Schedule C; and~~
~~(ii) for areas with a slope exceeding 25o and where stream fencing is impracticable, the provision of alternative mitigation measures.~~

~~(b) A description of setbacks and riparian management, including:~~

~~(i) The management of water body margins including how damage to the bed and margins of water bodies, and the direct input of contaminants will be avoided, and how riparian margin settling and filtering will be provided for; and~~
~~(ii) Where practicable the provision of minimum grazing setbacks from water bodies for stock exclusion of 1 metre for land with a slope of less than 15° and 3 metres for land with a slope between 15° and 25°; and~~
~~(iii) The provision of minimum cultivation setbacks of 5 metres.~~

~~(c) A description of the critical source areas from which sediment, nitrogen, phosphorus and microbial pathogens are lost, including:~~

~~(i) the identification of intermittent waterways, overland flow paths and areas prone to flooding and ponding, and an assessment of opportunities to minimise losses from these areas through appropriate stocking policy, stock exclusion and/or measures to detain floodwaters and settle out or otherwise remove sediment, nitrogen, phosphorus and microbial pathogens (e.g. detention bunds, sediment traps, natural and constructed wetlands); and~~

~~(ii) the identification of actively eroding areas, erosion prone areas, and areas of bare soil and appropriate measures for erosion and sediment control and re-vegetation; and~~

~~(iii) an assessment of the risk of diffuse discharge of sediment, nitrogen, phosphorus and microbial pathogens from tracks and races and livestock crossing structures to waterways, and the identification of appropriate measures to minimise these discharges (e.g. cut-off drains, and shaping); and~~

~~(iv) the identification of areas where effluent accumulates including yards, races, livestock crossing structures, underpasses, stock camps, and feed out areas, and appropriate measures to minimise the risk of diffuse discharges of contaminants from these areas to groundwater or surface water; and~~

~~(v) the identification of other 'hotspots' such as fertiliser, silage, compost, or effluent storage facilities, wash water facilities, offal or refuse disposal pits, and feeding or stock holding areas, and the appropriate~~

measures to minimise the risk of diffuse discharges of contaminants from these areas to groundwater or surface water.

(d) An assessment of appropriate land use and grazing management for specific areas on the farm in order to maintain and improve the physical and biological condition of soils and minimise the diffuse discharge of sediment, nitrogen, phosphorus and microbial pathogens to water bodies, including:

(i) matching land use to land capability; and

(ii) identifying areas not suitable for grazing; and

(iii) stocking policy to maintain soil condition and pasture cover; and

(iv) the appropriate location and management of winter forage crops; and

(v) suitable management practices for strip grazing.

(e) A description of nutrient management practices including a nutrient budget for the farm enterprise calculated using the model OVERSEER® in accordance with the OVERSEER® use protocols, or using any other model or method approved by the Chief Executive Officer of Waikato Regional Council.

(f) A description of cultivation management, including:

(i) The identification of slopes over 15 o and how cultivation on them will be avoided; unless contaminant discharges to water bodies from that cultivation can be avoided; and
(ii) How the adverse effects of cultivation on slopes of less than 15° will be mitigated through appropriate erosion and sediment controls for each paddock that will be cultivated including by:

(a) assessing where overland flows enters and exits the paddock in rainfall events; and
(b) identifying appropriate measures to divert overland flows from entering the cultivated paddock; and
(c) identifying measures to trap sediment leaving the cultivated paddock in overland flows; and
(d) maintaining appropriate buffers between cultivated areas and water bodies (minimum 5m setback).
(e) A description of collected animal effluent management including how the risks associated with the operation of effluent systems will be managed to minimise contaminant discharges to groundwater or surface water.
(f) A description of freshwater irrigation management including how contaminant loss arising from the irrigation system to groundwater or surface water will be minimised.

3. A spatial risk map(s) at a scale that clearly shows:

(a) The boundaries of the property; and

(b) The locations of the main land uses[74] that occur on the property; and

(c) The locations of existing and future mitigation actions to manage contaminant diffuse discharges; and

(d) Any relevant internal property boundaries that relate to risks and mitigation actions described in this plan; and

(e) The location of continually flowing rivers, streams, and drains and permanent lakes, ponds and wetlands; and

(f) The location of riparian vegetation and fences adjacent to water bodies; and

(g) The location of critical source areas for contaminants, as identified in 2 (c) above.

4. A description of the actions that will be undertaken in response to the risks identified in the risk assessment in 2 above (having regard to their relative priority) as well as where the mandatory time bound actions will be undertaken, and when and to what standard they will be completed.

5. A description of the following:

[74] For dairy farms this might be the OVERSEER® blocks, for drystock farms this might be Land Use Capability blocks.

(a) Actions, timeframes and other measures to ensure that the diffuse discharge of nitrogen from the property or enterprise, as measured by the five-year rolling average annual nitrogen loss as determined by the use of the current version of OVERSEER®, does not increase beyond the property or enterprise's Nitrogen Reference Point, unless other suitable mitigations are specified; or

(b) Where the Nitrogen Reference Point exceeds the 75th percentile nitrogen leaching value, actions, timeframes and other measures to ensure the diffuse discharge of nitrogen is reduced so that it does not exceed the 75th percentile nitrogen leaching value by 1 July 2026, except in the case of Rule 3.11.5.5.

Vegetable growing minimum standards

Farm environment plans required under Rule 3.11.5.5 shall, in addition to the matters set out above, ensure the following matters are addressed.

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	Soil/Phosphorus	As a minimum by block: an approved erosion and sediment control plan constructed in accordance with the Erosion and Sediment Control Guidelines for Vegetable Production June 2014
6	Nitrogen, Phosphorus	Documentation available for proof of fertiliser placement according to recommended instruction
7	Nitrogen, Phosphorus	Adoption and use of improved fertiliser products proved effective and available such as formulated prills, coatings and slow release mechanisms
8	Nitrogen, Phosphorus	Evidence available to demonstrate split applications by block/crop following expert approved practice relating to: o form of fertiliser applied o rate of application o placement of fertiliser o timing of application[75]

[75] J and A Anderson PC1-4261, Beef and Lamb PC1-11508, Federated Farmers V1PC1-766, Horticulture NZ PC1-12435, S and A Kelton PC1-7855, Maniapoto Maori Trust Board PC1-9366

Schedule 2 - Certification of ~~Industry~~ Sector Schemes/Te Āpitihanga 2 – Te whakamana i ngā tohu o ngā Kaupapa Ahumahi

The purpose of this schedule is to set out the minimum standards for Certified Sector Schemes. ~~criteria against which applications to approve an industry scheme will be assessed.~~

~~The application~~ Applications for approval as a Certified Sector Scheme shall be lodged with the Waikato Regional Council, and ~~shall~~ include information that demonstrates how the following ~~requirements~~ standards are met. The Waikato Regional Council may request further information or clarification on the application as it sees fit.

Approval will be at the discretion of the Chief Executive Officer of the Waikato Regional Council subject to the Chief Executive Officer being satisfied that the scheme will meet the standards set out in sections A to D below ~~effectively deliver on the assessment criteria~~.

~~**Assessment Criteria**~~

~~A. Certified Industry Scheme System~~

~~The application must demonstrate that the Certified Industry Scheme:~~
~~1. Is consistent with:~~
~~(a) the achievement of the water quality targets referred to in Objective 3; and~~
~~(b) the purposes of Policy 2 or 3; and~~
~~(c) the requirements of Rules 3.11.5.3 and 3.11.5.5.~~
~~2. Has an appropriate ownership structure, governance arrangements and management.~~
~~3. Has documented systems, processes, and procedures to ensure:~~
~~(a) Competent and consistent performance in Farm Environment Plan preparation and audit.~~
~~(b) Effective internal monitoring of performance.~~
~~(c) Robust data management.~~
~~(d) Timely provision of suitable quality data to Waikato Regional Council.~~
~~(e) Timely and appropriate reporting.~~
~~(f) Corrective actions will be implemented and escalated where required, including escalation to Waikato Regional Council if internal escalation is not successful.~~
~~(g) Internal quality control.~~
~~(h) The responsibilities of all parties to the Certified Industry Scheme are clearly stated.~~
~~(i) An accurate and up to date register of scheme membership is maintained.~~
~~(j) Transparency and public accountability of Certified Industry Schemes~~
~~(k) The articles of the scheme are available for public viewing.~~

~~B. People~~

~~The application must demonstrate that:~~
~~1. Those generating and auditing Farm Environment Plans are suitably qualified and experienced.~~
~~2. Auditing of Farm Environment plan requirements is independent of the Farm Environment Plan preparation and approval.~~

~~C. Farm Environment Plans~~

~~The application must demonstrate that Farm Environment Plans are prepared in conformance with Schedule 1.~~

A. Governance and management

Applications must include:

1. A description of the governance arrangements of the Scheme;
2. The contractual arrangements between the Scheme and its members;
3. A description of the process for gaining and ceasing membership;
4. A description of the Scheme area, including land uses, key environmental issues, property boundaries and ownership details of members' properties;
5. A procedure for keeping records of the matters in (4) above and advising WRC of changes;
6. A draft contractual agreement with the Waikato Regional Council that will require the Scheme, on certification, to meet and maintain the standards outlined in Section A to D below.

B. Preparation of Farm Environment Plans

Applications must include:

1. A statement of the Scheme's capability and capacity for preparing and certifying Farm Environment Plans that meet the requirements of Schedule 1, including the qualifications and experience of any personnel employed by or otherwise contracted to the Scheme to prepare or certify Farm Environment Plans;
2. An outline of timeframes for developing Farm Environment Plans for its members.

C. Implementation of Farm Environment Plans

Applications must include:

1. A statement of the Scheme's capability and capacity for monitoring and assessing the implementation of Farm Environment Plans, including the qualifications and experience of any personnel employed by or otherwise contracted to the Scheme to monitor or assess implementation of Farm Environment Plans;
2. A description of the expectations and agreements around landowner and property record-keeping;
3. A strategy for identifying and managing poor performance in implementing Farm Environment Plans.

D. Audit

Applications must include a description of an annual audit process to be conducted by an independent body, including:

1. A process for assessing performance against agreed actions in Farm Environment Plans at an individual property level;
2. A statement of how audit results will be shared with the Scheme's members and the wider community;
3. A process for assessing the performance of any personnel employed by or otherwise contracted to the Scheme to prepare, certify, and audit the implementation of Farm Environment Plans.

A summary audit report must be submitted to the Waikato Regional Council annually.[76]

[76] Fonterra PC1-10561, Ata Rangi PC1-6244, DOC PC1-10648, Southern Pastures Limited Partnership PC1-11197

3.11.1 List of Tables and Maps/Te Rārangi o ngā Ripanga me ngā Mahere

Table 3.11-1: Short term water quality limits and targets and long term numerical desired water quality states ~~targets~~ for the Waikato and Waipa River catchments/Ngā whāinga ā-tau taupoto, tauroa hoki mō te kounga wai i te riu o ngā awa o Waikato me Waipā

Within the Waikato and Waipa River catchments, these targets and desired water quality states are used in decision-making processes guided by the objectives in Chapter 3.11 and for future monitoring of changes in the state of water quality within the catchments. With regard to consent applications for diffuse discharges or point source discharges of nitrogen, phosphorus, sediment and microbial pathogens, it is not intended, nor is it in the nature of water quality targets and the desired water quality states[78], that they be used directly as receiving water compliance limits/standards. Reference should also be made to Method 3.2.4.1.

Explanatory note to Table 3.11-1

The tables set out the concentrations (all attributes except clarity) or visibility distance (clarity attribute) to be maintained or achieved by actions taken in the short term and ~~at~~ over 80 years for rivers and tributaries, and at 80 years for lakes FMUs. Where water quality is currently high (based on 2010-2014 monitoring data), the short term targets and 80-year desired water quality states ~~targets~~ will be the same as the current state and there is to be no decline in quality (that is, no increase in attribute concentration or decrease in clarity). Where water quality needs to improve, the water quality states ~~values~~ to be achieved at a site indicate a short term and long term reduction in concentration or increase in clarity compared to the current state.

For example, at Otamakokore Stream, Upper Waikato River FMU:

- the current state value for median nitrate is 0.740 mgNO3-N/L. The short term targets and 80-year desired water quality states ~~targets~~ are set at 0.740 mgNO3-N/Lto reflect that there is to be no decline in water quality
- the current state value for E.coli is 696 E.coli/100ml. The 80-year desired water quality state ~~target~~ is set at 540 E.coli/100ml and the short term target is set at 10% of the difference between the current state value and the 80 year desired water quality state ~~target~~[79].

The achievement of the attribute targets in Table 3.11-1 will be determined through analysis of 5-yearly monitoring data. The variability in water quality (such as due to seasonal and climatic events) and the variable response times of the system to implementation of mitigations may mean that the targets are not observed for every attribute at all sites in the short term.

The effect of some contaminants (particularly nitrogen) discharged from land has not yet been seen in the water. This means that in addition to reducing discharges from current use and activities, further reductions will be required to address the load to come that will contribute to nitrogen loads in the water. There are time lags between contaminants discharged from land uses and the effect in the water. For nitrogen in the Upper Waikato River particularly, this is because of the time taken for nitrogen to travel through the soil profile into groundwater and then eventually into the rivers. This means that there is some nitrogen leached from land use change that occurred decades ago that has entered groundwater, but has not yet entered the Waikato River. In some places, water quality (in terms of nitrogen) will deteriorate before it gets better. Phosphorus, sediment and microbial pathogens and diffuse discharges from land have shorter lag times, as they reach water from overland flow. However, there will be some time lags for actions taken to address these contaminants to be effective (for example tree planting for erosion control).

[77] GBC Winstone PC1-3627
[78] GBC Winstone PC1-3627
[79] All recommended amendments to the Explanatory Note: GBC Winstone PC1-3627

Table 3.11-1[80]: Upper Waikato River Freshwater Management Unit

Catchment number[81]	Site	Attributes																			
		Annual Median Chlorophyll a (mg/m^3)		Annual Maximum Chlorophyll a (mg/m^3)		Annual Median Total Nitrogen (mg/m^3)		Annual Median Total Phosphorus (mg/m^3)		Annual Median Nitrate (mg NO_3-N/L)		Annual 95th percentile Nitrate (mg NO_3-N/L)		Annual Median Ammonia[1] (mg NH_4-N/L)		Annual Maximum Ammonia[1] (mg NH_4-N/L)		95th percentile *E. coli* *(E. coli/100mL)*		Clarity (m)[2]	
		short term	80 year	short term	80 year	short term	80 year	short term	80 year	short term	80 year	short term	80 year	short term	80 year	short term	80 year	short term	80 year	short term	80 year
73	Waikato River Ohaaki Br	1.5	1.5	13	13	134	134	10	10	0.039	0.039	0.062	0.062	0.002	0.002	0.013	0.013	70	70	3.8	3.8
66	Waikato River Ohakuri Tailrace Br	3.2	3.2	11	11	206	160	17	17	0.084	0.084	0.172	0.172	0.003	0.003	0.017	0.017	15	15	3.4	3.4
67	Waikato River Whakamaru Tailrace		5		25	260	160	20	20	0.101	0.101	0.230	0.230	0.003	0.003	0.010	0.010	60	60	2.0	3.0
64	Waikato River Waipapa Tailrace	4.1	4.1	25	25	318	160	25	20	0.164	0.164	0.320	0.320	0.007	0.007	0.017	0.017	162	162	2.0	3.0
74	Pueto Stm Broadlands Rd Br	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	0.450	0.450	0.530	0.530	0.003	0.003	0.009	0.009	92	92	1.8	3.0
72	Torepatutahi Stm Vaile Rd Br	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	0.500	0.500	0.800	0.800	0.002	0.002	0.011	0.011	216	216		
65	Waiotapu Stm Homestead Rd Br	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	1.257	1.0	1.563	1.5	0.112	0.03	0.176	0.05	281	281		

[80] Waikato Regional Council PC1-3635
[81] Wairakei Pastoral Ltd PC1-11391

		Attributes																			
Catchment number	Site	Annual Median Chlorophyll a (mg/m^3)		Annual Maximum Chlorophyll a (mg/m^3)		Annual Median Total Nitrogen (mg/m^3)		Annual Median Total Phosphorus (mg/m^3)		Annual Median Nitrate (mg NO_3-N/L)		Annual 95th percentile Nitrate (mg NO_3-N/L)		Annual Median Ammonia[1] (mg NH_4-N/L)		Annual Maximum Ammonia[1] (mg NH_4-N/L)		95th percentile E. coli (E. coli/100mL)		Clarity (m)[2]	
		short term	80 year	short term	80 year	short term	80 year	short term	80 year	short term	80 year	short term	80 year	short term	80 year	short term	80 year	short term	80 year	short term	80 year
69	Mangakara Stm (Reporoa) SH5	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	1.270	1.0	1.590	1.5	0.008	0.008	0.062	0.05	1584	540	0.9	1.0
62	Kawaunui Stm SH5 Br	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	2.580	2.4	2.850	1.5	0.006	0.006	0.079	0.05	2335	540	1.4	1.6
58	Waiotapu Stm Campbell Rd Br	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	0.915	0.915	1.100	1.100	0.291	0.24	0.315	0.05	18	18	1.2	1.6
59	Otamakokore Stm Hossack Rd	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	0.740	0.740	1.190	1.190	0.006	0.006	0.024	0.024	680	540	1.2	1.6
56	Whirinaki Stm Corbett Rd	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	0.770	0.770	0.870	0.870	0.002	0.002	0.012	0.012	98	98	2.7	3.0
54	Tahunaatara Stm Ohakuri Rd	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	0.555	0.555	0.830	0.830	0.003	0.003	0.015	0.015	783	540	1.3	1.6
57	Mangaharakeke Stm SH30 (Off Jct SH1)	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	0.525	0.525	0.750	0.750	0.003	0.003	0.015	0.015	684	540	1.1	1.6
70	Waipapa Stm (Mokai) Tirohanga Rd Br	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	1.189	1.0	1.500	1.5	0.003	0.003	0.005	0.005	1147	540	1.2	1.6
71	Mangakino Stm Sandel Rd	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	0.650	0.650	0.860	0.860	0.003	0.003	0.012	0.012	251	251	1.8	3.0

		Attributes

Catchment number	Site	Annual Median Chlorophyll a (mg/m^3)		Annual Maximum Chlorophyll a (mg/m^3)		Annual Median Total Nitrogen (mg/m^3)		Annual Median Total Phosphorus (mg/m^3)		Annual Median Nitrate (mg NO_3-N/L)		Annual 95th percentile Nitrate (mg NO3-N/L)		Annual Median Ammonia[1] (mg NH_4-N/L)		Annual Maximum Ammonia[1] (mg NH_4-N/L)		95th percentile E. coli (E. coli/100mL)		Clarity (m)[2]	
		short term	80 year	short term	80 year	short term	80 year	short term	80 year	short term	80 year	short term	80 year	short term	80 year	short term	80 year	short term	80 year	short term	80 year
49	Whakauru Stm SH1 Br	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	0.260	0.260	0.450	0.450	0.003	0.003	0.033	0.033	2106	540	0.8	1.0
48	Mangamingi Stm Paraonui Rd Br	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	2.760	2.4	3.12	1.5	0.091	0.03	0.296	0.05	2151	540	0.8	1.0
45	Pokaiwhenua Stm Arapuni - Putaruru Rd	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	1.680	1.0	2.040	1.5	0.002	0.002	0.020	0.020	1363	540	1.3	1.6
44	Little Waipa Stm Arapuni - Putaruru Rd	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	1.522	1.0	2.040	1.5	0.002	0.002	0.085	0.05	1377	540	1.5	1.6

[1] The annual median and annual maximum ammonia have been adjusted for pH

[2] Median black disc horizontal sighting range under baseflow conditions

[3] Attribute is not applicable to the sub-catchment

Table 3.11-1: Middle Waikato River Freshwater Management Unit

Catchment number	Site	Attributes																			
		Annual Median Chlorophyll a (mg/m^3)		Annual Maximum Chlorophyll a (mg/m^3)		Annual Median Total Nitrogen (mg/m^3)		Annual Median Total Phosphorus (mg/m^3)		Annual Median Nitrate (mg NO_3-N/L)		Annual 95th percentile Nitrate (mg NO_3-N/L)		Annual Median Ammonia[1] (mg NH_4-N/L)		Annual Maximum Ammonia[1] (mg NH_4-N/L)		95th percentile *E. coli* (*E. coli*/100mL)		Clarity (m)[2]	
		short term	80 year	short term	80 year	short term	80 year	short term	80 year	short term	80 year	short term	80 year	short term	80 year	short term	80 year	short term	80 year	short term	80 year
33	Waikato River Narrows Boat Ramp	5.5	5	23	23	404	350	28	20	0.235	0.235	0.500	0.500	0.009	0.009	0.018	0.018	340	260	1.7	1.7
25	Waikato River Horotiu Br	6.1	5	23	23	432	350	34	20	0.260	0.260	0.530	0.530	0.007	0.007	0.029	0.029	774	540	1.4	1.6
32	Karapiro Stm Hickey Rd Bridge	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	0.520	0.520	1.689	1.5	0.008	0.008	0.031	0.031	4518	540	0.9	1.0
35	Mangawhero Stm Cambridge-Ohaupo Rd	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	1.990	1.0	2.490	1.5	0.041	0.03	0.072	0.05	2920	540	0.3	1.0
29	Mangaonua Stm Hoeka Rd	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	1.455	1.0	1.878	1.5	0.036	0.03	0.051	0.05	6372	540	1.0	1.0
31	Mangaone Stm Annebrooke Rd Br	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	2.580	2.4	2.940	1.5	0.009	0.009	0.02	0.02	2052	540	0.9	1.0
30	Mangakotukutuku Stm Peacockes Rd	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	0.800	0.800	1.788	1.5	0.077	0.03	0.132	0.05	11394	540	0.5	1.0

		Attributes																			
Catchment number	**Site**	**Annual Median Chlorophyll a (mg/m^3)**		**Annual Maximum Chlorophyll a (mg/m^3)**		**Annual Median Total Nitrogen (mg/m^3)**		**Annual Median Total Phosphorus (mg/m^3)**		**Annual Median Nitrate (mg NO_3-N/L)**		**Annual 95th percentile Nitrate (mg NO_3-N/L)**		**Annual Median Ammonia[1] (mg NH_4-N/L)**		**Annual Maximum Ammonia[1] (mg NH_4-N/L)**		**95th percentile *E. coli* (*E.coli*/100mL)**		**Clarity (m)[2]**	
		short term	**80 year**	**short term**	**80 year**	**short term**	**80 year**	**short term**	**80 year**	**short term**	**80 year**	**short term**	**80 year**	**short term**	**80 year**	**short term**	**80 year**	**short term**	**80 year**	**short term**	**80 year**
28	**Waitawhiriwhiri Stm Edgecumbe Street**	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	0.880	0.880	1.240	1.24	0.256	0.24	0.318	0.05	5922	540	0.4	1.0
23	**Kirikiriroa Stm Tauhara Dr**	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	0.815	0.815	1.572	1.5	0.096	0.03	0.183	0.05	2124	540	0.5	1.0

[1] The annual median and annual maximum ammonia have been adjusted for pH

[2] Median black disc horizontal sighting range under baseflow conditions

[3] Attribute is not applicable to the sub-catchment

Table 3.11-1: Lower Waikato River Freshwater Management Unit

Catchment number	Site	Attributes																			
		Annual Median Chlorophyll a (mg/m^3)		Annual Maximum Chlorophyll a (mg/m^3)		Annual Median Total Nitrogen (mg/m^3)		Annual Median Total Phosphorus (mg/m^3)		Annual Median Nitrate (mg NO_3-N/L)		Annual 95th percentile Nitrate (mg NO_3-N/L)		Annual Median Ammonia[1] (mg NH_4-N/L)		Annual Maximum Ammonia[1] (mg NH_4-N/L)		95th percentile *E. coli* (*E.coli*/100mL)		Clarity (m)[2]	
		short term	80 year	short term	80 year	short term	80 year	short term	80 year	short term	80 year	short term	80 year	short term	80 year	short term	80 year	short term	80 year	short term	80 year
20	Waikato River Huntly-Tainui Br	5.9	5	19	19	562	350	43	20	0.365	0.365	0.900	0.900	0.005	0.005	0.015	0.015	1944	540	0.9	1.0
9	Waikato River Mercer Br	10.0	5	30	25	631	350	49	20	0.365	0.365	0.870	0.870	0.003	0.003	0.010	0.010	1494	540		
4	Waikato River Tuakau Br	11.3	5	37	25	571	350	50	20	0.325	0.325	0.880	0.880	0.003	0.003	0.008	0.008	1584	540	0.7	1.0
22	Komakorau Stm Henry Rd	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	1.279	1.0	4.400	3.5	0.250	0.24	0.419	0.40	3474	540	0.3	1.0
17	Mangawara Stm Rutherford Rd Br	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	0.765	0.765	2.760	1.5	0.103	0.03	0.172	0.05	4955	540	0.3	1.0

		Attributes																			
Catchment number	**Site**	**Annual Median Chlorophyll a (mg/m^3)**		**Annual Maximum Chlorophyll a (mg/m^3)**		**Annual Median Total Nitrogen (mg/m^3)**		**Annual Median Total Phosphorus (mg/m^3)**		**Annual Median Nitrate (mg NO_3-N/L)**		**Annual 95th percentile Nitrate (mg NO_3-N/L)**		**Annual Median Ammonia[1] (mg NH_4-N/L)**		**Annual Maximum Ammonia[1] (mg NH_4-N/L)**		**95th percentile *E. coli* (*E.coli*/100mL)**		**Clarity (m)[2]**	
		short term	**80 year**	**short term**	**80 year**	**short term**	**80 year**	**short term**	**80 year**	**short term**	**80 year**	**short term**	**80 year**	**short term**	**80 year**	**short term**	**80 year**	**short term**	**80 year**	**short term**	**80 year**
19	Awaroa Stm (Rotowaro) Sansons Br @ Rotowaro-Huntly Rd	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	0.700	0.700	1.190	1.190	0.021	0.021	0.089	0.05	1800	540	0.8	1.0
14	Matahuru Stm Waiterimu Road Below Confluence	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	0.715	0.715	1.689	1.5	0.016	0.016	0.059	0.05	6147	540	0.4	1.0
16	Whangape Stm Rangiriri-Glen Murray Rd	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	0.004	0.004	0.690	0.690	0.006	0.006	0.134	0.05	584	540	0.3	1.0
12	Waerenga Stm ~~SH2~~ Maramarua Taniwha Rd[82]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	0.820	0.820	1.410	1.410	0.005	0.005	0.022	0.022	5098	540	0.9	1.0
8	Whangamarino River Jefferies Rd Br	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	0.625	0.625	1.842	1.5	0.012	0.012	0.147	0.05	4712	540	0.6	1.0
2	Mangatangi River SH2 Maramarua	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	0.110	0.110	1.120	1.120	0.005	0.005	0.038	0.038	5567	540	0.5	1.0
1	Mangatawhiri River Lyons Rd Buckingham Br	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	0.013	0.013	0.370	0.370	0.003	0.003	0.011	0.011	5108	540	1.6	1.6
10	Whangamarino River Island Block Rd	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	0.075	0.075	0.700	0.700	0.011	0.011	0.054	0.05	655	540	0.3	1.0

[82] Waikato Regional Council PC1-3635

		Attributes																			
Catchment number	**Site**	**Annual Median Chlorophyll a (mg/m^3)**		**Annual Maximum Chlorophyll a (mg/m^3)**		**Annual Median Total Nitrogen (mg/m^3)**		**Annual Median Total Phosphorus (mg/m^3)**		**Annual Median Nitrate (mg NO_3-N/L)**		**Annual 95th percentile Nitrate (mg NO_3-N/L)**		**Annual Median Ammonia[1] (mg NH_4-N/L)**		**Annual Maximum Ammonia[1] (mg NH_4-N/L)**		**95th percentile *E. coli* (*E.coli*/100mL)**		**Clarity (m)[2]**	
		short term	**80 year**	**short term**	**80 year**	**short term**	**80 year**	**short term**	**80 year**	**short term**	**80 year**	**short term**	**80 year**	**short term**	**80 year**	**short term**	**80 year**	**short term**	**80 year**	**short term**	**80 year**
3	Whakapipi Stm SH22 Br	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	3.390	2.4	5.120	3.5	0.006	0.006	0.081	0.05	1773	540	1.1	1.1
7	Ohaeroa Stm SH22 Br	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	1.473	1.0	1.806	1.5	0.003	0.003	0.015	0.015	4667	540	0.8	1.0
11	Opuatia Stm Ponganui Rd	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	0.740	0.740	1.060	1.060	0.005	0.005	0.016	0.016	2898	540	0.6	1.0
5	Awaroa River (Waiuku) Otaua Rd Br Moseley Rd	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	NA[3]	1.369	1.0	2.310	1.5	0.021	0.021	0.135	0.05	1017	540	0.4	1.0

[1] The annual median and annual maximum ammonia have been adjusted for pH

[2] Median black disc horizontal sighting range under baseflow conditions

[3] Attribute is not applicable to the sub-catchment

Table 3.11-1: Waipa River Freshwater Management Unit

		Attributes											
Catchment number	**Site**	**Annual Median Nitrate (mg NO_3-N/L)**		**Annual 95th percentile Nitrate (mg NO_3-N/L)**		**Annual Median Ammonia[1] (mg NH_4-N/L)**		**Annual Maximum Ammonia[1] (mg NH_4-N/L)**		**95th percentile *E. coli* (*E.coli*/100mL)**		**Clarity (m)[2]**	
		short term	**80 year**	**short term**	**80 year**	**short term**	**80 year**	**short term**	**80 year**	**short term**	**80 year**	**short term**	**80 year**
68	Waipa River Mangaokewa Rd	0.380	0.380	0.600	0.600	0.003	0.003	0.017	0.017	2417	540	1.5	1.6
60	Waipa River Otewa	0.228	0.228	0.502	0.502	0.003	0.003	0.008	0.008	2036	540	2.1	2.1
51	Waipa River SH3 Otorohanga	0.370	0.370	1.050	1.050	0.004	0.004	0.020	0.020	3289	540	1.2	1.6
43	Waipa River Pirongia-Ngutunui Rd Br	0.565	0.565	1.270	1.270	0.008	0.008	0.023	0.023	4441	540	0.7	1.0
34	Waipa River Whatawhata Bridge	0.673	0.673	1.319	1.319	0.009	0.009	0.026	0.026	3657	540	0.6	1.0
26	Ohote Stm Whatawhata/Horotiu Rd	0.495	0.495	1.370	1.370	0.023	0.023	0.052	0.05	2142	540	0.6	1.0
36	Kaniwhaniwha Stm Wright Rd	0.350	0.350	0.890	0.890	0.007	0.007	0.022	0.022	1917	540	0.9	1.0
38	Mangapiko Bowman Rd Stm	1.369	1.0	2.490	1.5	0.022	0.022	0.076	0.03	7074	540	0.6	1.0
39	Mangaohoi Stm South Branch Maru Rd	0.230	0.230	0.390	0.390	0.003	0.003	0.008	0.008	943	540	1.6	1.6
37	Mangauika Stm Te Awamutu Borough W/S Intake	0.210	0.210	0.280	0.280	0.002	0.002	0.003	0.003	1008	540	3.3	3.3

		Attributes											
Catchment number	**Site**	**Annual Median Nitrate (mg NO_3-N/L)**		**Annual 95th percentile Nitrate (mg NO_3-N/L)**		**Annual Median Ammonia[1] (mg NH_4-N/L)**		**Annual Maximum Ammonia[1] (mg NH_4-N/L)**		**95th percentile *E. coli* (*E.coli*/100mL)**		**Clarity (m)[2]**	
		short term	**80 year**	**short term**	**80 year**	**short term**	**80 year**	**short term**	**80 year**	**short term**	**80 year**	**short term**	**80 year**
40	Puniu River Bartons Corner Rd Br	0.650	0.650	1.280	1.280	0.007	0.007	0.029	0.029	2790	540	0.9	1.0
47	Mangatutu Stm Walker Rd Br	0.380	0.380	0.880	0.880	0.003	0.003	0.012	0.012	738	540	1.5	1.6
46	Waitomo Stm SH31 Otorohanga	0.520	0.520	0.830	0.830	0.008	0.008	0.025	0.025	1453	540	0.6	1.0
53	Mangapu River Otorohanga	0.860	0.860	1.360	1.360	0.015	0.015	0.057	0.05	4284	540	0.7	1.0
52	Waitomo Stm Tumutumu Rd	0.630	0.630	0.800	0.800	0.004	0.004	0.013	0.013	2241	540	1.1	1.6
63	Mangaokewa Stm Lawrence Street Br	0.530	0.530	0.980	0.980	0.004	0.004	0.013	0.013	6224	540	1.4	1.6

[1] The annual median and annual maximum ammonia have been adjusted for pH

[2] Median black disc horizontal sighting range under baseflow conditions

[3] Attribute is not applicable to the sub-catchment

Table 3.11-1: Dune, Riverine, Volcanic and Peat Lakes Freshwater Management Units

	Attributes								
Lake FMU	**Annual Median Chlorophyll a (mg/m^3)**	**Annual Maximum Chlorophyll a (mg/m^3)**	**Annual Median Ammonia[1] ($mg\ NH_4$-N/L)**	**Annual Maximum Ammonia[1] ($mg\ NH_4$-N/L)**	**Annual Median Total Nitrogen (mg/m^3)**	**Annual Median total Phosphorus (mg/m^3)**	**95th percentile *E. coli* (*E. coli*/100mL)**	**80th percentile cyanobacteria (biovolume mm^3/L)**	**Clarity (m)**
	80 year*	**80 year***	**80 year***	**80 year***	**80 year***	**80 year***	**80 year***	**80 year***	**80 year***
Dune	12	60	0.24	0.40	750	50	540	1.8^+	1
Riverine	12	60	0.24	0.40	800	50	540	1.8^+	1
Volcanic Zone	12	60	0.24	0.40	750	50	540	1.8^+	1
Peat	12	60	0.24	0.40[83]	750	50	540	1.8^+	1

*unless a lake is already of better water quality, in which case the water quality is to not decline

+1.8mm^3/L biovolume equivalent of potentially toxic cyanobacteria or 10mm^3/L total biovolume of all cyanobacteria

[1] The annual median and annual maximum ammonia have been adjusted for pH

[2] Median black disc horizontal sighting range under baseflow conditions

[83] WRC PC1-3635

Table 3.11-2: List of sub-catchments showing Priority 1, Priority 2, and Priority 3 sub-catchments/Te rārangi o ngā riu kōawaawa e whakaatu ana i te riu kōawaawa i te Taumata 1, i te Taumata 2, me te Taumata 3

If more than fifty percent of a farm enterprise is in a particular sub-catchment, then the dates for compliance for that sub-catchment apply.

Sub-catchment identifier	Sub-catchment number	Priority
Mangatangi	2	1
Whakapipi	3	1
Whangamarino at Jefferies Rd Br	8	1
Whangamarino at Island Block Rd	10	1
Opuatia	11	1
Waerenga	12	1
Waikare	13	1
Matahuru	14	1
Whangape	16	1
Mangawara	17	1
Awaroa (Rotowaro) at Harris/Te Ohaki Br	18	1
Waikato at Huntly-Tainui Br	20	1
Kirikiriroa	23	1
Waikato at Horotiu Br	25	1
Waikato at Bridge St Br	27	1
Waitawhiriwhiri	28	1
Mangakotukutuku	30	1
Mangawhero	35	1
Moakurarua	42	1
Little Waipa	44	1
Pokaiwhenua	45	1
Mangamingi	48	1
Waipa at Otorohanga	51	1
Waitomo at Tumutumu Rd	52	1
Mangapu	53	1
Mangarapa	55	1
Mangaharakeke	57	1
Mangarama	61	1
Mangaokewa	63	1
Waikato at Waipapa	64	1
Waiotapu at Homestead	65	1

Waipa at Mangaokewa Rd	68	1
Waipapa	70	1
Torepatutahi	72	1
Waikato at Tuakau Br	4	2
Waikato at Port Waikato	6	~~2~~ 1
Waikato at Rangiriri	15	~~2~~ 1
Awaroa (Rotowaro) at Sansons Br	19	~~2~~ 1
Firewood	21	2
Komakorau	22	2
Waipa at Waingaro Rd Br	24	2
Mangaone	31	2
Waipa at SH23 Br Whatawhata	34	~~2~~ 1
Kaniwhaniwha	36	2
Mangapiko	38	2
Puniu at Bartons Corner Rd Br	40	2
Waipa at Pirongia-Ngutunui Rd Br	43	2
Waitomo at SH31 Otorohanga	46	2
Whakauru	49	2
Tahunaatara	54	2
Otamakokore	59	2
Waipa at Otewa	60	2
Kawaunui	62	2
Waikato at Whakamaru	67	2
Mangakara	69	2
Mangakino	71	2
Mangatawhiri	1	3
Awaroa (Waiuku)	5	3
Ohaeroa	7	3
Waikato at Mercer Br	9	3
Ohote	26	3
Mangaonua	29	3
Karapiro	32	3
Waikato at Narrows	33	~~3~~ 1
Mangauika	37	3
Mangaohoi	39	3
Waikato at Karapiro	41	3

Mangatutu	47	3
Puniu at Wharepapa	50	3
Whirinaki	56	3
Waiotapu at Campbell	58	~~3~~ 1
Waikato at Ohakuri	66	3
Waikato at Ohaaki	73	~~3~~ 1[84]
Pueto	74	3

Table 3.11-2: List of sub-catchments showing Priority 1, Priority 2, and Priority 3 sub-catchments

~~* part sub-catchment~~

[84] DoC PC1-11067

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

Commercial Vegetable Production Enterprises: Means an aggregation of parcels of land that constitutes a single operating unit for the purpose of contaminant management.

Comment [VH21]: VH EIC

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.

Comment [VH22]: CK MS EIC

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

Comment [VH23]: VH EIC

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).

Comment [VH24]: CK MS EIC