WAIKATO AND WAIPĀ RIVER IWI – CONSOLIDATED PC1 (CLEAN)

This is a clean version of Consolidated PC1, with respect to the River lwi amendments.

This document retains the mark-ups of the Section 42A Version of PC1 (see page 1 of PC1 for a key to those amendments), making further River Iwi amendments in yellow highlight. This includes text that was deleted, and that the River Iwi propose to be reinstated, as well as new text proposed by the River Iwi.

Text that the River Iwi has deleted is not visible in this version. To view River Iwi deletions, please see the marked-up version.

Provision	Amendment proposal	Consolidated PC1 Reference
Reference to Te Ture Whaimana	Block 3 Oral Submission – change 'Vision and Strategy' to 'Te Ture Whaimana' (consequential amendment – inclusion of definition of 'Te Ture Whaimana' referred to below in table).	Global Edit
Reference to Waipā River	To include macron on Waipā in English text of PC1 – currently included only in Te Reo Māori text.	Global Edit
Background and Explanation	As per River Iwi Legal Submissions on signalling the future: Block 3 Submissions at paras 12-32 and Closing Submissons at paras 8-10.	Page 4
Values and Uses	As per Janeen Kydd-Smith (JKS) Block 1 EIC regarding reference to waterbodies at paras 18-21.	Pages 12 – 16
'Objective' Headings	Reinstate as per JKS Block 1 EIC at para 34.	Pages 16 – 19
Objective 1	As per JKS Block 1 EIC at para 30.	Page 16
Objective 2	Add term 'spiritual' as per River Iwi Block 1 Legal Submissions at paras 54-57.	Page 16
Objective 3	Make distinction between short-term 'objectives' and long-term 'states' as per JKS Block 1 EIC at para 41 and Olivier Ausseil (OA) Block 1 EIC at para 44.	Page 16-17
Objective 4	As per JKS Block 1 EIC at para 47.	Page 17
Policy 1	As per JKS Block 2 EIC at paras 29, 35, 39, 40 and 58.	Page 20
Policy 2	As per JKS Block 2 EIC at para 58-59 and 63, and Block 2 Rebuttal at paras 14-15.	Pages 20 – 21
Policy 3	As per JKS Block 3 EIC at paras 36 and 41.	Pages 21 – 22
Policy 4	As per River Iwi Block 3 Legal Submissions on consent duration at paras 28 - 32.	Page 22
Policy 5	As per JKS Block 2 EIC at paras 81 and 82-84, and Hamish Lowe (HL) Block 2 EIC at para 73.	Pages 22 – 23
Policy 7	As per River Iwi Legal Submissions on signalling the future: Block 3 Submissions at paras 12-32 and Closing Submissons at paras 8-10.	Page 23
Policy 8	As per JKS Block 2 EIC at para 88.	Page 23
Policy 9	Deleted as per JKS Block 3 EIC at para 44.	-
Policy 10	As per JKS Block 3 Rebuttal at paras 56-57.	Page 23
Policy 11	As per JKS Block 2 Rebuttal at paras 17-25.	Page 24
Policy 12	As per JKS Block 2 EIC at para 121.	Pages 24
Policy 13	As per River Iwi Block 3 Legal Submissions on consent duration at paras 28 - 32.	Page 24-25

	1	26 September 2019
Provision	Amendment proposal	Consolidated PC1 Reference
Policy 14	As per JKS Block 1 EIC at paras 57-58.	Page 25
Policy 17	The two sub-points are unnecessary; nor does the River Iwi consider the wider context of Te Ture Whaimana a 'secondary' matter.	Page 25
Implementation Method (IM) 3.11.4.3	Amendment regarding FEPs and activity status for farming as per JKS Block 2 EIC at para 99, JKS Block 3 EIC at para 51(c) and Closing Legal Submissions at paras 29-36.	Page 27
IM 3.11.4.4	As per JKS Block 3 EIC at para 51(d).	Pages 27-28
IM 3.11.4.5	As per JKS Block 3 EIC at paras 51(e).	Page 28
IM 3.11.4.10	As per JKS Block 3 EIC at para 51(h).	Page 29
IM 3.11.4.12	As per JKS Block 3 EIC at para 51(j).	Page 29
Rule 3.11.5.1A	Amendment regarding FEPs and activity status for farming as per	Page 30-31
Rule 3.11.5.2	JKS Block 2 EIC at para 99, JKS Block 3 EIC at para 51(c) and Closing	Page 31-32
Rule 3.11.5.2A	 Legal Submissions at paras 29-36. Amendments also made to assist in the workability of retention of 	Page 33
Rule 3.11.5.3	the hybrid approach.	-
Rule 3.11.5.4	• Rule 3.11.5.3 is deleted.	Page 33-35
Rule 3.11.5.5		Page 35-36
Rule 3.11.5.6A		Page 37
Rule 3.11.5.7	To reinstate end date to Rule 3.11.5.7 as per Block 2 Legal Submission at para 20.	Page 37-38
Rule 3.11.5.8	As per JKS Block 2 Rebuttal at paras 33-35. (JKS agrees with the evidence	-
Rule 3.11.5.9	of Ms Marr for Fish & Game suggesting deletion of rules).	-
Schedule A	As per River Iwi Closing Legal Submissions at para 35.	Page 39
Schedule B	As per River Iwi Closing Legal Submissions at para 35.	Page 40
Schedule 1	As per River Iwi Closing Legal Submissions at paras 29-36.	Pages 43-49
3.11.1 List of Tables and Maps	Make distinction between short-term 'objectives' and long-term 'states' as per JKS Block 1 EIC at para 41 and OA Block 1 EIC at para 44.	Page 55
Table 3.11.1	Amendments consistent with OA recommendations in the JWS.	Page 56
Definition: Certified Farm Environment Planner	As per HL Block 3 EIC at para 31.	Pages 66-67
Definition: Farm	HL further reflection.	Page 69
Definition: Good Farming Practice	JKS Block 3 Rebuttal at para 35.	Page 69
Definition: Offset/s	JKS Block 2 Rebuttal at para 21.	Page 70
Definition: Planted Production Forest	As per HL Block 3 Rebuttal at para 14.	Page 70
Definition: Stocking rate	As per HL Block 3 Rebuttal at para 17.	Page 72
Definition: Te Ture Whaimana	Block 3 Oral Submission – change 'Vision and Strategy' to 'Te Ture Whaimana'.	Page 72

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

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 Waikato and Waipā River Catchments/Ngā Riu o ngā Awa o Waikato me Waipā

Area covered by Chapter 3.11/Ngā Riu o ngā Awa o Waikato me Waipā

This Chapter 3.11 applies to the Waikato and Waipā River catchments. The map shown in Map 3.11-1 shows the general catchment boundary. This Chapter is additional to all other parts of the Waikato Regional Plan. Where there are any inconsistencies, Chapter 3.11 prevails.

Map 3.11-1 shows the general catchment boundary and includes the boundaries of each Freshwater Management Unit^ (FMU): The FMUs are:

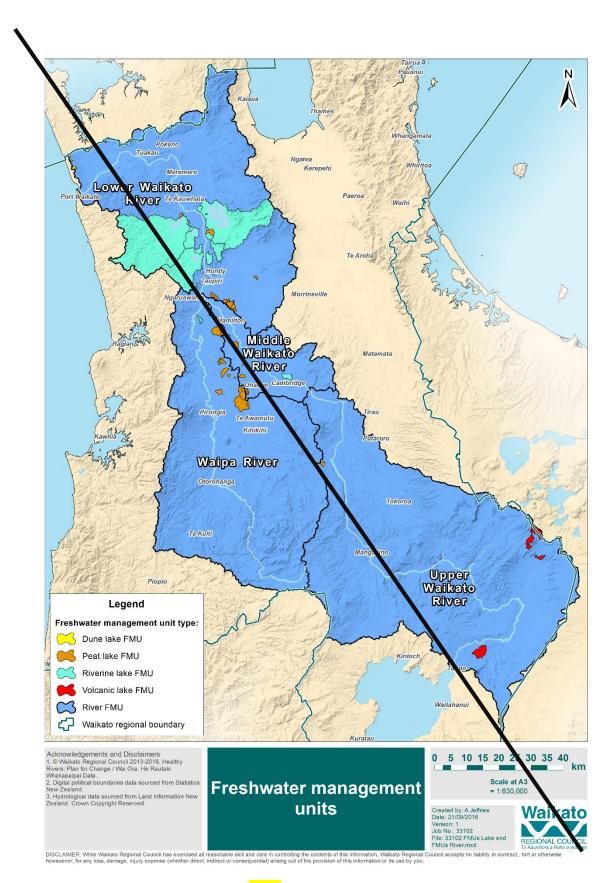
- Upper Waikato River
- Middle Waikato River
- Lower Waikato River
- Waipā River
- Peat Lakes
- Riverine Lakes
- Dune Lakes
- Volcanic Lakes

FMUs are required by central government's National Policy Statement for Freshwater Management 2014. FMUs enable monitoring of progress towards meeting targets^ and limits^.

The Plan maps of the Waikato and Waipā River catchments are available electronically or for viewing at Waikato Regional Council offices on request.

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¹ Waikato Regional Council PC1-2976



Map 3.11-1: Map of the Waikato and Waipā River catchments, showing Freshwater Management Units

Updated map showing corrected boundaries to be inserted

Background and explanation

Co-management of the Waikato and Waipa Rivers

There are three River Acts that establish co-governance arrangements for the Waikato and Waipā Rivers and catchment. These are Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010, Ngati Tuwharetoa, Raukawa, and Te Arawa River Iwi Waikato River Act 2010 and Nga Wai o Maniapoto (Waipā River) Act 2012.

The iwi partners in the development of Chapter 3.11 are Maniapoto, Raukawa, Ngāti Tūwharetoa, Te Arawa River Iwi and Waikato-Tainui. The processes for preparing, reviewing, changing or varying the regional plan, in terms of River Iwi involvement in the process, is set out in the legislation. This includes a requirement for Council to establish a Joint Working Party with each of the River Iwi, the purposes of which include making joint recommendations to the Council regarding the plan change.

The three River Acts established the Vision and Strategy for the Waikato River/Te Ture Whaimana o Te Awa o Waikato (Te Ture Whaimana) as the primary direction setting document for the Waikato and Waipā Rivers. Te Ture Whaimana prevails over any inconsistencies in a national policy statement or New Zealand coastal policy statement, and is deemed to be part of the Waikato Regional Policy Statement.

Te Ture Whaimana states that the Waikato and Waipā Rivers are degraded and require, amongst other things, restoration and protection. One objective² has been given particular focus for this chapter: The restoration of water quality within the Waikato River so that it is safe for people to swim in and take food from over its entire length. Te Ture Whaimana is being given effect to in Chapter 3.11 by:

- Reducing nitrogen, phosphorus, sediment and microbial pathogen losses from land
- Ongoing management of diffuse and point source discharges of nitrogen, phosphorus, sediment and microbial pathogens
- Giving people and communities time to adapt to the requirements of Chapter 3.11 and supporting actions to
 achieve short-term objectives while being clear that further reductions in nitrogen, phosphorus, sediment and
 microbial pathogen losses from land will be required in subsequent regional plans
- Ensuring that Waikato Regional Council continues to facilitate ongoing research, monitoring and tracking of changes
 on the land and in the water to provide for the application of Mātauranga Māori and latest scientific methods, as
 they become available
- Preparing for any future management regime (including allocation) for diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens in subsequent regional plans, requirements on what can be undertaken on the land, with limits^ ensuring that the management of land use and activities is closely aligned with the biophysical capabilities of the land, the spatial location, and the likely effects of discharges on the lakes, rivers and wetlands in the catchment.

Collaborative approach

The co-governance partners agreed to adopt a collaborative approach to investigate and develop fresh water management approaches that would be implemented in the Waikato and Waipā River Catchments.

A key feature of the collaborative approach was the Collaborative Stakeholder Group (CSG), which represented stakeholders and the wider community in Healthy Rivers: Plan for Change/Wai Ora: He Rautaki Whakapaipai. The CSG was the central channel for stakeholder and broader community collaboration in the project. It intensively reviewed and deliberated on technical material from a group of external technical experts from a range of disciplines. For Proposed Plan Change 1, tThe CSG also sought input from their sectors and from the community, and ultimately proposed the contents of Chapter 3.11 to decision makers.

Consultation

Schedule 1 of the RMA includes requirements to consult with certain parties, including iwi authorities, during the preparation of the Variation. Consultation has taken place with affected parties including the relevant iwi authorities and the issues raised during consultation have been taken into account by Waikato Regional Council in the development of Variation 1. Consultation has led to a Variation to Proposed Plan Change 1.

² Te Ture Whaimana o te Awa o Waikato, Objective K

Water quality and National Policy Statement for Freshwater Management

The National Policy Statement for Freshwater Management 2014 (NPS FM) requires regional councils to formulate freshwater objectives and set limits or targets (a target is a limit to be achieved within a specified timeframe). Regional councils must ensure over-allocation of the water resource is avoided, or addressed where that has already occurred.

Current water quality monitoring results show that while there is variability across the Waikato and Waipā River catchments, there are adverse effects on water bodies associated with discharges of nitrogen, phosphorus, sediment and microbial pathogens. The CSG concluded that from a water quality point of view, over-allocation^ has occurred. Water bodies in the Waikato and Waipā River catchments are not able to assimilate further discharges of nitrogen, phosphorus, sediment and microbial pathogens, without adversely affecting community-held values. Achieving the numeric, long-term freshwater objectives^ in Chapter 3.11 will require reductions in diffuse and point source contaminants.

The NPS FM directs the Waikato Regional Council to establish freshwater objectives[^] that give effect to the objectives of the NPS FM and describe the state that Waikato regional communities want for fresh water in the future.

The NPS FM process followed in developing Chapter 3.11, included identifying FMUs and the values for each, and then choosing relevant water quality attributes[^] and attribute states[^] that can be monitored over time. Freshwater objectives[^] and limits[^] or targets[^] set out what is required to achieve the attribute states[^]. Under the NPS FM, a limit[^] is the maximum amount of resource use available, which allows a freshwater objective[^] to be met.

The CSG identified resource use that affects the achievement of the freshwater objectives^ and long-term desired water quality, and for achieving Te Ture Whaimana. Chapter 3.11 sets out policies and methods that restrict what can be done on the land and discharged to land or water.

Full achievement of Te Ture Whaimana will be intergenerational

The CSG has chosen an 80-year timeframe to achieve the water quality objectives of Te Ture Whaimana. The timeframe is intergenerational and more aspirational than the national bottom lines set out in the NPS FM because it seeks to meet the higher standards of being safe to swim in and take food from over the entire length of the Waikato and Waipā Rivers and catchment. Based on the information currently available, the CSG has concluded full achievement of Te Ture Whaimana by 2096 is likely to be costly and difficult. The 80-year timeframe recognises the 'innovation gap' that means full achievement of water quality requires technologies or practices that are not yet available or economically feasible. In addition, the current understanding is that achieving water quality restoration requires a considerable amount of land to be changed from land uses with moderate and high intensity of discharges to land use with lower discharges (e.g. through reforestation).

Because of the extent of change required to restore and protect water quality in the 80-year timeframe, the CSG has adopted a staged approach. This approach breaks the required improvements into a number of steps, the first of which is to put in place and implement the range of actions in a 10 year period that will be required to achieve 10 percent of the required change between current water quality and the long term water quality in 2096. The staged approach recognises that immediate large scale land use change may be socially disruptive, and there is considerable effort and cost for resource users, industry and Waikato Regional Council to set up the change process in the first stage. New implementation processes, expertise and engagement are needed to support the first stage. The staged approach also allows time for the innovation in technology and practices that will need to be developed to meet the targets^ and limits^ in subsequent regional plans to be developed.

Because of the extent of change required to meet the 80-year limits^, achieving even the first step towards the long-term freshwater objectives in this Plan is an ambitious target. This means the effects of actions and changes on the land may not be seen as water quality improvements in the water bodies in the short term. This is partly due to the time required for the concentration of contaminants in the water to reduce, following mitigation actions being put in place, and specifically, the time it takes for nitrogen to move through the soil profile to groundwater, and then to surface water. This means that the effect of actions put in place to reduce nitrogen now may not be seen in the water for some time (the length of time lag varies across the catchment). It also means there is a nitrogen 'load to come' from historic land use that is yet to be seen in the water.

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

stock exclusion from water bodies as a priority mitigation action

- Farm Environment Plans (including those for commercial vegetable producers) that ensure industry-specific good management-farming practice, with monitoring and auditing to ensure outcomes are being achieved.and identify additional mitigation actions to reduce diffuse discharges by specified dates, which can then be monitored³
- a property scale nitrogen reference point to be established by modelling current nutrient losses from each property, with no property being allowed to <u>increase losses</u> exceed its reference point⁴ in the future and higher dischargers being required to reduce their nutrient losses
- an accreditation system to be set up for people who will assist farmers to prepare their Farm Environment Plan, and to certify agricultural industry schemes
- Waikato Regional Council to develop approaches outside the rule framework that allow contaminant loss risk factors to be assessed at a sub-catchment level, and implement mitigations that look beyond individual farm boundaries to identify the most cost-effective solutions.

There are a number of existing provisions, including rules, in the Waikato Regional Plan that will continue to apply for point source discharges.

Municipal and industrial point source dischargers will also be required to revise their discharges in light of Te Ture Whaimana and the water quality objectives, and sub-catchment limits^ and targets^ that have been set. This will happen as the current consent terms expire.

There are a range of existing provisions in this Plan that deal with activities that relate to forestry. Forestry activities will continue to be managed by these existing provisions, with the addition of requirements around preparing harvest plans and notifying Waikato Regional Council of harvest activities.⁵

In the short term, IL and use change from tree cover to animal grazing, or any livestock grazing other the dairy or arable cropping to dairy, or any land use to commercial vegetable production, will be constrained. Provision has been made for some flexibility of land use for Māori land that has not been able to develop due to historic and legal impediments. As these impediments have had an impact on the relationship between tangata whenua and their ancestral lands, with associated cultural and economic effects, Chapter 3.11 seeks to recognise and provide for these relationships. These constraints on land use change are interim, until a future plan change introduces a second stage, where further reductions in discharges of sediment, nutrients and microbial pathogens from point sources and activity on the land will be required. This second stage will focus on land suitability and how land use impacts on water quality, based on the type of land and the sensitivity of the receiving water. Methods in Chapter 3.11 include the research and information to be developed to support this.⁶

Reviewing progress toward achieving Te Ture Whaimana

The overall intent of Chapter 3.11 is to require resource users to make a start on reducing discharges of contaminants as the first stage of achieving Te Ture Whaimana, with on-farm actions carried out and point source discharges reviewed as existing resource consents come up for renewal. The staged approach gives people and communities time to adapt, while being clear that further reductions will be required by subsequent regional plans.

Te Ture Whaimana contained in each of the three River Acts is required to be reviewed periodically by the Waikato River Authority, which may make changes to insert limits and methods.

The Resource Management Act requires that regional councils commence reviews of their regional plans 10 years after those plans are operative. When this is done in the future, further changes to reduce diffuse and point source discharges will need to follow the initial preparatory stage embodied in Chapter 3.11 of this Plan.

During the life of this Plan, Waikato Regional Council will track the progress of actions undertaken on the land towards achieving Te Ture Whaimana. In addition, research and information collation will be used when this Plan is reviewed, to inform any future property-level allocation of contaminant discharges.

³ G Carter PC1-8827, Wairakei Pastoral Ltd PC1-11406

⁴ Balle Bros Group V1PC1-250

⁵ Consequential to deletion of Part B

⁶ Jack Farms PC1-8026, H and S Brooks PC1-84, Sieling Farms PC1-5465

Te Horopaki me ngā Whakamārama

Te whakahaere ngātahi i ngā awa o Waikato me Waipā

E toru ngā Ture mō ngā Awa e whakatū ana i ngā whakaritenga whakahaere ngātahi mō ngā awa o Waikato me Waipā, me ngā riu o aua awa. Ko ngā ture ēnei, ko te Te Ture Whakataunga Kokoraho Raupatu a Waikato-Tainui (Te Awa o Waikato) 2010, ko Te Ture o Ngā Iwi o Te Awa o Waikato 2010, arā o Ngāti Tūwharetoa, o Raukawa, o Te Arawa anō hoki me Te Ture o Ngā Wai o Maniapoto (Te Awa o Waipā) 2012.

Ko ngā āpiti ā-iwi i whai wāhi ki te whanaketanga o te Upoko 3.11, ko Maniapoto rātou ko Raukawa, ko Ngāti Tūwharetoa, ko ngā iwi o ngā awa o Te Arawa me Waikato-Tainui. Kei roto i te ture ngā whakamārama mō te āhua o te whai wāhitanga o ngā iwi o te awa ki ngā tukanga whakarite, arotake, panoni rānei i te mahere ā-rohe. Kei reira anō hoki te here kei runga i te Kaunihera ki te whakatū i tētehi Ohu Mahi Ngātahi i te taha o tēnā iwi, o tēnā iwi o te awa, ko tētehi o ngā aronga, ko te whakatakoto ngātahi i ngā tūtohunga ki te Kaunihera mō te panonitanga o te mahere.

I whakatūria Te Ture Whaimana o Te Awa o Waikato e ngā Ture e toru mō ngā Awa hei pukapuka matua e whakatau ana i te anga whakamuatanga mō ngā awa o Waikato me Waipā. Mehemea ka kitea he taupatupatutanga i tētehi Tauākī kaupapa here ā-motu, i te Tauākī kaupapa here takutai moana a Aotearoa rānei, kei runga ko Te Ture Whaimana, waihoki he wāhanga tēnei nō Te Tauākī Kaupapa Here ā-Rohe a Waikato.

E kī ana te Ture Whaimana, kua whakakinongia ngā awa o Waikato me Waipā, ā, me whakaora mai, me tiaki anō hoki ka tika, heoi he mahi anō i tua atu i ērā. E kaha arotahingia ana tētehi whāinga i tēnei upoko, arā ko te whakaoranga o te kounga wai o roto i te awa o Waikato, kia pai ai tā te tangata kaukau ki roto, kia pai ai te kohi kai i ngā wāhi katoa o te awa, mai i te mātāpuna ki te pūaha. E whakatinanahia ana te Ture Whaimana i te Upoko 3.11 mā te:

- whakaiti i te ngaronga o te hauota, o te pūtūtae-whetū, o te waiparapara me te tukumate ora poto i te whenua
- whakahaere tonu i te rukenga roha me te rukenga pū tuwha o te hauota, o te pūtūtae-whetū, o te waiparapara, o te tukumate ora poto anō hoki
- tuku i te tangata me ngā hapori kia taunga haere ai rātou ki ngā here o te Upoko 3.11 me te tautoko i ngā tūmahi kia tutuki ai ngā whāinga taupoto, i runga anō i te mārama me whai wāhi tonu ki ngā mahere ā-rohe ka whai ake, te whakaitinga o te ngaronga o te hauota, o te pūtūtae-whetū, o te waiparapara me te tukumate ora poto i te whenua
- whakaū kia whakahaere tonu te Kaunihera ā-rohe o Waikato i ngā rangahau, i te aroturuki me te mātai i ngā rerekētanga ā-whenua, i roto anō hoki i te wai kia āhei ai te whai i te Mātauranga Māori me ngā tikanga pūtaiao o te wā, ka puta mai ana aua tikanga
- whakarite i ngā herenga o anamata mō ngā mahi i runga i te whenua, me te āpiti atu i ngā tāpuitanga^ e whakaū ana i te hāngai pū o ngā tūmahi me te whakahaeretanga o te whakamahinga whenua ki ngā āheinga ahupūngao koiora o te whenua, ki te wāhi me ngā pānga o ngā rukenga ki ngā roto, ki ngā awa me ngā repo i roto i te riu.

Te huarahi o te mahi ngātahi

I whakaae ngā āpiti hautū ngātahi ki te whai i te huarahi o te mahi ngātahi ki te whakatewhatewha me te whakawhanake i ngā huarahi whakahaere wai Māori ka whāia i ngā riu o ngā awa o Waikato me Waipā.

Ko tētehi āhuatanga matua o te huarahi o te mahi ngātahi ko te Rōpū Mahi Ngātahi o ngā Hunga Whai Pānga, i noho mai hei kanohi mō te hunga whai pānga me te hapori whānui i te kaupapa o Wai Ora: He Rautaki Whakapaipai. Ko te Rōpū Mahi Ngātahi o ngā Hunga Whai Pānga te huarahi matua i mahi ngātahi ai te hunga whai pānga me te hapori whānui i te kaupapa. I āta arotake, i āta whiriwhiri mārire anō te rōpū i ngā rauemi whāiti nā tētehi rōpū mātanga ā-waho i ahu mai i ētehi tūmomo pekanga mātauranga. I te Panonitanga Tuatahi o te Mahere e Marohitia nei, i whai hoki te Rōpū Mahi Ngātahi o ngā Hunga Whai Pānga i ngā whakaaro o ō rātou rāngai me te hapori, ā, nā rātou ngā kōrero o te Upoko 3.11 i whakatakoto ki te hunga whakatau.

Te Whakawhiti Kōrero

Kei roto i te Rārangi Whakawhiti Kōrero 1 o te RMA ngā here kia mātua whakawhiti kōrero me ētehi hunga, pērā i ngā rūnanga ā-iwi, i te wā e whakaritea ana te Whakataurangitanga. Kua oti ngā whakawhitinga kōrero me ngā hunga e pāngia ana, tae atu ki ngā rūnanga ā-iwi e hāngai ana, ā, kua āta arohia ngā take i ara ake ai i aua whakawhitinga kōrero e te Kaunihera ā-Rohe o Waikato i te whakaritenga o Te Whakataurangitanga Tuatahi. Nā ngā whakawhitinga kōrero i hua ai Te Whakataurangitanga i te Panonitanga Tuatahi o te Mahere e Marohitia nei.

Te Kounga Wai me te Tauākī Kaupapa Here ā-Motu mō te Whakahaere Wai Māori

Kua herea ngā kaunihera ā-rohe e te Tauākī Kaupapa Here ā-Motu mō te Whakahaere Wai Māori 2016 ki te whakarite whāinga wai Māori^ me te whakatakoto tāpuitanga^, whāinga^ rānei (he tāpuitanga te whāinga me whakatutuki i roto i te wā i tohua ai). Me mātua whakaū ngā kaunihera ā-rohe kāore e nui rawa te tohanga^ o te rawa wai, me whakatika rānei e rātou tērā tohanga mehemea kua whērā kē.

E whakaaturia mai ana i ngā hua o te aroturuki ā-kounga wai, ahakoa ngā rerekētanga i ngā wāhi katoa o ngā riu o ngā awa o Waikato me Waipā, he kino tonu ngā pānga ki ngā hōpua wai nā ngā rukenga ā-hauota, ā-pūtūtae-whetū, ā-waiparapara, ā-tukumate ora poto anō hoki. I whakatau te Rōpū Mahi Ngātahi o ngā Hunga Whai Pānga, he nui rawa te tohanga^ i te horopaki o te kounga wai. Kāore e taea e ngā hōpua wai o ngā riu o ngā awa o Waikato me Waipā te whakaputa ētehi atu rukenga ā-hauota, ā-pūtūtae-whetū, ā-waiparapara, ā-tukumate ora poto anō hoki, me te kore e puta o ngā pānga kino ki ngā uara o te hapori. Me whakaiti ngā tāhawahawatanga roha me ngā tāhawahawatanga i ngā pū tuwha e tutuki ai ngā whāinga ā-tau me ngā whāinga tauroa mō te wai Māori, o te Upoko 3.11.

Ka tohutohu te Tauākī Kaupapa Here ā-Motu mō te Whakahaere Wai Māori i te Kaunihera ā-Rohe o Waikato ki te whakarite whāinga wai Māori e whakamana ana i ngā whāinga o te Tauākī Kaupapa Here ā-Motu mō te Whakahaere Wai Māori, e whakamārama ana anō hoki i te āhua o te wai e hiahiatia ana e ngā hapori ā-rohe o Waikato hei ngā tau e heke mai ana.

Ko tētehi wāhanga o te tukanga o te Tauākī Kaupapa Here ā-Motu mō te Whakahaere Wai Māori i whāia ai hei whakarite i te Upoko 3.11, ko te tautuhi i ngā wae whakahaere wai māori me ngā uara o ia wae, kātahi ka kōwhiria ngā āhuatanga o te kounga wai^ e hāngai ana me ngā āhuatanga^ ka taea te aroturuki i roto i te wā. Mā ngā whāinga wai Māori^ me ngā tāpuitanga^, ngā whāinga^ rānei e whakatau ngā here e tutuki ai ngā āhuatanga^. Kei raro i te Tauākī Kaupapa Here ā-Motu mō te Whakahaere Wai Māori, ko te tāpuitanga^ te taumata o te whakamahinga o ngā rawa e wātea ana, kia āhei ai te whakatutukitanga o tētehi whāinga wai Māori.

I tautuhi te Rōpū Mahi Ngātahi o ngā Hunga Whai Pānga i te whakamahinga rawa ka pā ki te whakatutukitanga o ngā whāinga wai Māori^, ki ngā hiahia tauroa mō te kounga wai me te whakatutukitanga o te Ture Whaimana. E takoto ana i te Upoko 3.11 ngā kaupapa here me ngā tikanga e here ana i ngā mahi i runga i te whenua me te rukenga ki te whenua, ki te wai rānei.

Ka pā ki ngā whakatupuranga maha te whakatutukitanga o Te Ture Whaimana

Kua kōwhiri te Rōpū Mahi Ngātahi o ngā Hunga Whai Pānga i te 80 tau hei pae wā ki te whakatutuki i ngā whāinga kounga wai o Te Ture Whaimana. He pae wā tēnei ka pā ki ngā whakatupuranga maha, ā, he nui ake hoki te tūmanako i ngā pae o raro ā-motu kua whakatakotoria i te Tauākī Kaupapa Here ā-Motu mō te Whakahaere Wai Māori, nā te mea e whai ana tēnei ki te whakatutuki i ngā paerewa teitei ake kia pai ai tā te tangata kaukau ki roto i te wai, kia pai ai hoki te kohi kai i ngā wāhi katoa o ngā awa o Waikato me Waipā, mai i ngā mātāpuna ki ngā pūaha, me ngā riu. E ai ki ngā pārongo e wātea ana ināianei, kua whakatau te Rōpū Mahi Ngātahi o ngā Hunga Whai Pānga ka nui te utu, ka uaua hoki te whakatutukitanga katoatanga o Te Ture Whaimana i mua i te tau 2096. Kua kitea te 'āputa auahatanga' i te pae wā o te 80 tau, arā e whakatutuki katoatia ai te kounga wai me whai hangarau, me whai tikanga rānei kāore anō kia hua ake, kāore anō rānei e taea, i ngā āhuatanga ā-ōhanga. Hei āpiti atu, e mōhiotia ana ināianei, e tutuki ai te whakaoranga o te kounga wai me whakarerekē te whakamahinga o ētehi whenua nui tonu, he āhua nui, he tino nui rānei te rukenga o ērā whenua kia iti ake te rukenga (hei tauira, mā te whakatupu rākau).

Kua whai te Rōpū Mahi Ngātahi o ngā Hunga Whai Pānga i tētehi huarahi wāwāhi nā te nui o ngā panonitanga me whai kia whakaorangia mai anō, kia tiakina hoki te kounga wai i te roanga o te pae wā o te 80 tau. Nā tēnei huarahi i wāhia ai ngā whakatikahanga me puta mai, ko te tuatahi o ngā whakatikahanga he whakarite, he whakatinana anō hoki i ngā tūmomo tūmahi me mahi rawa i roto i te tekau tau, e tutuki ai te tekau ōrau o ngā panonitanga, i te kounga wai ināianei ki te kounga wai tauroa hei te tau 2096. E kitea ana i tēnei huarahi wāwāhi he raru pea ka pā ki te pāpori i te nui o ngā panonitanga ā-whakamahinga whenua i roto i te wā poto, ā, he nui te mahi, he nui hoki te utu ki te hunga whakamahi rawa, ki te ahumahi, ki te Kaunihera ā-rohe o Waikato hoki ki te whakarite i te tukanga panonitanga i te wāhanga tuatahi. Me whai tukanga whakatinana hou, me whai tohungatanga, me whakatū hui whiriwhiri kaupapa hei taunaki i te wāhanga tuatahi. Mā te huarahi wāwāhi e whai wā ai kia puta mai ngā hangarau me ngā tikanga auaha e tika ana kia puta hei whakatutuki i ngā whāinga^ me ngā tāpuitanga^ i roto i ngā mahere ā-rohe ka whai ake.

Nā te nui o te panonitanga me puta rawa e tutuki ai ngā tāpuitanga^i roto i te 80 tau, he whāinga nui tonu te whakatutuki i te wāhanga tuatahi o ngā whāinga wai Māori tauroa o tēnei Mahere. Nā konei, kāore pea e kitea i roto i te wā poto te pānga o ngā tūmahi me ngā panonitanga i runga i te whenua ki te kounga wai i roto i ngā hōpua wai. I whēnei ai, nā te roa o te wā e memeha haere ai te kukūnga o ngā tāhawahawatanga i roto i te wai, whai i muri mai i te whakaritenga o ngā mahi whakangāwari i ngā pānga, otirā nā te roa o te wā e heke ai te hauota i te oneone ki ngā wai o te whenua, tae atu ki te wai ka rere ki ngā kōawāwa. Nā konei, ka roa pea te wā kātahi ka kitea i roto i te wai te pānga o ngā tūmahi o

nâianei kua whakaritea kia iti iho ai te hauota (ka rerekē te roa o te wā i ngā wāhi katoa o te riu). I runga hoki i tērā, he 'utanga hauota' kāore anō kia kitea i te wai e puta tonu mai ana nā te whakamahinga whenua i mua.

I runga i te huarahi e whāia ana i te Upoko 3.11 hei whakaiti i te ngaronga o ngā tāhawahawatanga i ngā pāmu kararehe, me:

- aukati i ngā kararehe i ngā hōpua wai hei tūmahi whakangāwari totoa
- whai Mahere Taiao ā-Pāmu (tae atu ki ngā kaiwhakatupu huawhenua ā-arumoni) e whakaū ana i ngā tikanga whakahaere pai ā-ahumahi, e tautuhi ana anō hoki i ētehi atu tūmahi whakangāwari hei whakaiti i ngā rukenga roha i mua i ētehi rā ka āta tohua, ka aroturukihia ai
- whakarite tauine tohu hauota ā-whenua mā te whakatauira i ngā ngaronga whakamomona i ia whenua, kāore tētehi whenua e āhei ki te hipa i tana tohu hei ngā tau e heke mai ana, ā, me whakaiti rawa ngā kairuke kaha rawa i ngā ngaronga whakamomona
- whakarite tëtehi pūnaha whakamanatanga mo te hunga ka āwhina i ngā kaipāmu ki te whakarite i ā rātou Mahere
 Taiao ā-Pāmu, ki te whakapūmau ano hoki i ngā kaupapa ā-ahumahi ahuwhenua
- whakawhanake te Kaunihera ā-rohe o Waikato i ētehi huarahi kāore e herea ana ki te anga ā-ture kia āhei ai te arotake i ngā tūponotanga ngaronga tāhawahawatanga i ngā riu o ngā kautawa, ka whakatinana hoki i ngā mahi whakangāwari pānga kāore e herea ki ngā rohenga o ngā pāmu, hei tautuhi i ngā urupare, iti katoa te utu.

He nui ngā whakatau kua mana kē me ngā ture kei roto i tēnei Mahere, ka hāngai tonu ki ngā rukenga pū tuwha.

Me panoni rawa ngā kairuke i ngā pū tuwha nō ngā whakahaere ā-rohe, nō ngā ahumahi anō hoki i ā rātou rukenga kia hāngai ki Te Ture Whaimana, ki ngā whāinga hoki mō te kounga wai, ki ngā tāpuitanga^ o ngā riu kōawāwa me ngā whāinga^ kua whakaritea. Ka whēnei hei te paunga o ngā here ā-whakaaetanga o tēnei wā.

He nui ngā tūmomo whakataunga kei roto i tēnei Mahere e hāngai ana ki ngā mahinga ngahere. Ka riro tonu mā ēnei whakataunga ngā mahinga ngahere e whakahaere, engari ka tāpirihia atu ētehi atu here e pā ana ki te whakarite mahere hauhake me te whakamōhio i te Kaunihera ā-Rohe o Waikato ki ngā tūmahi hauhake.

Hei ngā tau e tū tata mai ana, ka herea te panonitanga ā-whakamahinga whenua, whēnei i te huringa o te ngahere hei pāmu kararehe, i te huringa rānei o te pāmu whakatupu kararehe hei pāmu miraka kau. Kua whakaritea kia āhua ngāwari ake ngā here mō te whakamahinga o ngā whenua Māori kāore anō kia whanake nā ngā raruraru ā-hītori me ngā raruraru ā-ture. Nā te mea kua pā ēnei raruraru ki te hononga i waenganui i te tangata whenua me ō rātou whenua tūpuna, me ngā pānga ā-ahurea, ā-ōhanga i puta i tērā, e whai ana te Upoko 3.11 ki te whakamana, ki te whakarite hoki i ēnei hononga. Mō tēnei wā ēnei here i runga i ngā panonitanga ā-whakamahinga whenua, kia whakatakotoria rā anōtia tētehi wāhanga tuarua i tētehi panonitanga ā-mahere o anamata, e herea ai ngā kairuke ki te whakaiti anō i ngā rukenga waiparapara, whakamōmona, tukumate ora poto anō hoki i ngā rukenga pū tuwha me ngā mahi i runga i te whenua. Ka aro tēnei wāhanga tuarua ki te pai o te whenua me te pānga o te whakamahinga whenua ki te kounga wai, i runga i te āhua o te whenua me te āhua o ngā wai taketake. Kei te Upoko 3.11 ngā tikanga whēnei i ngā rangahau me ngā pārongo me whakawhanake ake hei taunaki i tēnei.

Te arotake i te kokenga ki te whakatutuki i Te Ture Whaimana o Te Awa o Waikato

Ko te whāinga matua o te Upoko 3.11, he here i ngā kaiwhakamahi rawa kia tīmata rātou ki te whakaiti i ngā rukenga tāhawahawatanga, koia nei te wāhanga tuatahi e tutuki ai Te Ture Whaimana, ka whakahaerehia ētehi tūmahi i runga pāmu, ka arotakehia anō hoki ngā rukenga pū tuwha ka tata ana ki te wā e whakahoungia ai ngā whakaaetanga rawa. Mā te huarahi wāwāhi e taunga haere ai te tangata me ngā hapori, i runga i te mārama he whakaitinga atu anō ka whakaritea e ngā mahere ā-rohe ka whai ake.

Me arotake pokapoka Te Ture Whaimana kei roto i ngā Ture e toru mō ngā Awa e te Te Manatū Whakahaere i Te Awa o Waikato, ākuanei pea māna e panoni aua tuhinga kia whakaurua atu he tāpuitanga, he tikanga anō hoki.

E here ana Te Ture Penapena Rawa i ngā kaunihera ā-rohe kia tīmata tā rātou arotake i ā rātou mahere ā-rohe kia pau te tekau tau e whakahaerehia ana aua mahere. Kia oti tēnei hei ngā tau e heke mai ana, me whai i muri i te wāhanga tuatahi kei roto i te Upoko 3.11 o tēnei Mahere ētehi atu panonitanga hei whakaiti i ngā rukenga roha me ngā rukenga i ngā pū tuwha.

I te wā e whāia ana tēnei Mahere, ka mātai te Kaunihera ā-rohe o Waikato i te kokenga o ngā tūmahi e kawea ana i runga i te whenua hei whakatutuki i Te Ture Whaimana. Hei āpiti atu, ka whakamahia ngā rangahau me ngā kohinga pārongo i te arotakenga o tēnei Mahere, hei ārahi i ngā tohanga ā-whenua o ngā rukenga tāhawahawatanga hei ngā tau e heke mai ana.

3.11.1 Values and uses for the Waikato and Waipa Rivers/Nga Uara me nga Whakamahinga o nga Awa o Waikato me Waipa

The National Policy Statement – Freshwater Management Policy CA2 requires certain steps to be taken in the process of setting limits[^]. These include establishing the values[^] that are relevant in a FMU[^], identifying the attributes[^] that correspond to those values[^], and setting objectives based on desired attribute states[^]. This section describes values and uses for the Waikato and Waipā Rivers, to provide background to the objectives and limits[^] in later sections.

This section describes the values and uses for the Waikato and Waipā Rivers. The values and uses reflect Te Ture Whaimana for the Waikato River. The values and uses set out below apply to all FMU's unless explicitly stated, and provide background to the freshwater objectives⁷, and the attributes and attribute states outlined in Table 3.11-1.

Vision and Strategy for the Waikato River/Te Ture Whaimana o Te Awa o Waikato⁸

"Our vision is for a future where a healthy Waikato River sustains abundant life and prosperous communities who, in turn, are all responsible for restoring and protecting the health and wellbeing of the Waikato River, and all it embraces, for generations to come."9

The values below have been prepared and are supported by the Collaborative Stakeholder Group.

⁷ Wairakei Pastoral Ltd PC1-11260, DoC PC1-1831

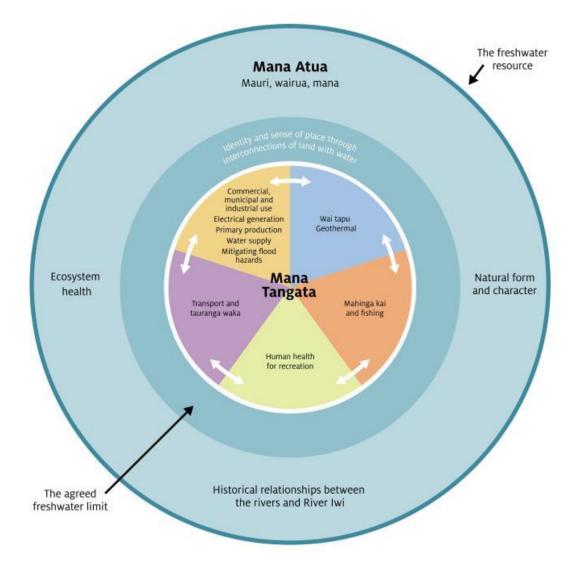
⁸ The Nga Wai o Maniapoto (<mark>Waipā</mark> River) Act 2012 extended Te Ture Whaimana o te Awa o Waikato to also cover the <mark>Waipā</mark> River and its catchment

⁹ The Vision and Strategy is intended by Parliament to be the primary direction setting document for the Waikato River and activities within its catchment affecting the Waikato River. Values and uses are intrinsic to, and embedded in the Vision and Strategy.

Te Mana o te Wai: Mana Atua, Mana Tangata

Values can be thought of in terms of Mana Atua and Mana Tangata, which represent Te Mana o te Wai¹⁰. Mana Atua represents the intrinsic values of water including the mauri (the principle of life force), wairua (the principle of spiritual dimension) and inherent mana (the principle of prestige, authority) of the water and its ecosystems in their natural state. Mana Tangata refers to values of water arising from its use by people for economic, social, spiritual and cultural purposes. Mana Atua and Mana Tangata values encompass past, present and future.

A strong sense of identity and connection with land and water (hononga ki te wai, hononga ki te whenua) is apparent through Te Ture Whaimana and the many values associated with the rivers. This is represented in the figure below as a unifying value that provides an interface between the Mana Atua and Mana Tangata values.



Note: New diagram from Variation 1 to be inserted.

¹⁰ The National Policy Statement for Freshwater Management 2014 states that the aggregation of a range of community and tangata whenua values, and the ability of fresh water to provide for them over time, recognises the national significance of fresh water and Te Mana o te Wai.

Hononga ki te wai, hononga ki te whenua - Identity and sense of place through the interconnections of land with water

- The rivers contribute to a sense of community and sustaining community wellbeing.
- The rivers are an important part of whānau/family life, holding nostalgic feelings and memories and having deep cultural and historical significance.
- For River Iwi and other iwi, respect for the springs, rivers, lakes and wetlands lies at the heart of the spiritual and physical wellbeing of iwi and their tribal identity and culture. The springs, rivers, lakes and wetlands are is not separate from the people but part of the people, "Ko au te awa, ko te awa ko au" (I am the river and the river is me).
- Whanaungatanga is at the heart of iwi relationships with springs, rivers, lakes and wetlands. Te taura tangata is the cord of kinship that binds iwi to springs, rivers, lakes and wetlands. It is a braid that is tightly woven, tying in all its strands. It is unbroken and infinite, forming the base for kaitiakitanga and the intergenerational role that iwi have as kaitiaki.
- The rivers are a shared responsibility, needing collective stewardship: kaitiakitanga working together to restore the rivers. There is also an important intergenerational equity concept within kaitiakitanga.
- Mahitahi (collaborative work) encourages us all to work together to achieve common goals.

3.11.1.1 Mana Atua – Intrinsic values

Intrinsic values - Ancestry and History¹¹

Ko te whakapapa o ngā iwi ki ōna awa tūpuna Ko ngā hononga tūpuna me ngā hononga o mua i waenga i ngā iwi o te awa me ētehi atu iwi me ngā awa, ngā repo me ngā puna / Ancestral and Historical relationships connections between the springs, rivers, lakes and wetlands and River Iwi and other iwi

Ko ngā korero tūpuna me ngā Korero o Muao neherā / Ancestry and History

Each River Iwi and other iwi have has their own unique and intergenerational relationship with the springs, rivers, lakes and wetlands.

- The Springs, rivers, lakes and wetlands have always been seen as taonga (treasures) to all River Iwi and other iwi.
- The Springs, rivers, lakes and wetlands have always given River Iwi and other iwi a strong sense of identity and connection with the land and water.
- Springs, rivers, lakes and wetlands were used holistically; River Iwi and other iwi understood the functional relationships with and between all parts of the springs, rivers, lakes and wetlands, spiritually and physically as kaitiaki.
- Tribal taniwha and tupua dwell in the rivers which are also the location of continued spiritual and cultural traditions and practices maintained over the many centuries.
- <u>Iwi tupuna inhabited a rohe that teemed with life in the springs</u>, rivers, <u>lakes and wetlands</u>. <u>These resources were subject to access and use rights as an essential part of kaitiakitanga</u>.
- Iwi strive to maintain and restore these relationships despite the modification and destruction that has occurred through different types of development along affecting the springs, rivers, lakes and wetlands.

Intrinsic values - Ecosystem health

Ko te hauora me te mauri o te wai / The health and mauri of water

Ecosystem health

The Waikato and Waipā catchments support resilient freshwater ecosystems and healthy freshwater populations

Clean fresh water restores and protects aquatic native vegetation to provide habitat and food for native aquatic species and for human activities or needs, including swimming and drinking.

¹¹ Watercare V1PC1-888

of indigenous plants and animals.	•	Clean fresh water restores and protects macroinvertebrate communities for their intrinsic value and as a food source for native fish, native birds and introduced game species.
	•	Clean fresh water supports native freshwater fish species.
	•	Wetlands and floodplains provide water purification, refuge, feeding and
		breeding habitat for aquatic species, habitat for water fowl and other ecosystem services such as flood attenuation.
	•	Fresh water contributes to unique habitats including peat lakes, shallow riverine
		lakes and karst formations which all support unique biodiversity.
	•	Rivers and adjacent riparian margins have value as ecological corridors.

Intrinsic values - Natural form and character

Ko te hauora me te mauri o te taiao / The health and mauri of the environment

Natural form and character

Retain the integrity of the			
springs, rivers <mark>, lakes</mark> and			
wetlands within the landscape			
and its aesthetic features and			
natural qualities for people to			
eniov.			

- The Springs, rivers, lakes and wetlands¹² have amenity and naturalness values, including native vegetation, undeveloped stretches, and significant sites.
- People are able to enjoy the natural environment; it contributes to their health and wellbeing.
- The rivers are an ecological and cultural corridor.
- The springs, rivers, lakes and wetlands as a whole living entity.

3.11.1.2 Mana Tangata – Use values

Use values Wai tapu

Ko ngā wai tapu me ngā wai kino / Sacred and harmful waters

Wai tapu and wai kino

Area of water body set aside
for spiritual activities that
support spiritual, cultural and
physical wellbeing or have
properties that
require additional
caution or care.

- The Springs, rivers, lakes and wetlands are a place for sacred rituals, wairua, healing, spiritual nurturing and cleansing.
- The Springs, rivers, lakes and wetlands provide for cultural and heritage practices and cultural wellbeing, particularly at significant sites.
- <u>The</u> Springs, rivers, lakes and wetlands have different states of wai tapu and wai kino that are adhered to and respected.

Use values - Geothermal

Ko ngā Ngāwhā / Geothermal

Geothermal

A valued resource that is naturally gifted to sustain certain activities (meeting spiritual and physical needs).

- Geothermal areas and their various resources were prized by tūpuna (ancestors) for their many uses and are still valued and used today.
- Geothermal areas of the river have natural form and character, and unique flora found only in the geothermal environment.
- Geothermal areas are a special microclimate.

Use values Mahinga kai

Ko ngā wāhi mahinga kai / Food gathering, places of food

¹² DoC PC1-8136, 8189, 8152, 8532, 8533, 8535, 8540

Mahinga kai

The ability to access the Waikato and Waipa springs, rivers, lakes and wetlands and their tributaries to gather sufficient quantities of kai (food) that is safe to eat and meets the social and spiritual needs of their stakeholders.

- The Springs, rivers, lakes and wetlands provide for freshwater native species, native vegetation, and habitat for native animals.
- The Springs, rivers, lakes and wetlands provide for freshwater game and introduced kai species.
- The Springs, rivers, lakes and wetlands provide for cultural wellbeing, knowledge transfer, intergenerational harvest, obligations of manaakitanga (to give hospitality to, respect, generosity and care for others) and cultural opportunities, particularly at significant sites.
- The rivers should be safe to take food from, both fisheries and kai.
- The Springs, rivers, lakes and wetlands support aquatic life, healthy biodiversity, ecosystem services, flora and fauna and biodiversity benefits for all.
- The rivers are a corridor.
- The Springs, rivers, lakes and wetlands provide resources available for use which could be managed in a sustainable way.
- The rivers provide for recreation needs and for social wellbeing.¹³

Use values Human health for recreation

Ko te hauora me te mauri o ngā tāngata / The health and mauri of the people

Human health for recreation

The Lakes and rivers are a place to swim and undertake recreation activities in an environment that poses minimal risk to health.

- The <u>Lakes and</u> rivers provide for recreational use, social needs and social
 wellbeing, are widely used by the community, and are a place to relax, play,
 exercise and have an active lifestyle.
- An important value for the <u>lakes and</u> rivers is cleanliness; the <u>lakes and</u> rivers should be safe for people to swim in.
- The <u>lakes and</u> rivers provide resources available for use which could be managed in a sustainable way.

Use values - Transport and tauranga waka

He urungi / Navigation

Transport and tauranga waka

All communities can use the lakes and rivers to pilot their vehicles and waka and navigate to their destinations.

- The <u>Lakes and</u> rivers provide for recreational use (navigation), and sporting opportunities.
- The <u>Lakes and</u> rivers are a corridor, mode of transport and mode of communication.
- The <u>Lakes and</u> rivers provide for culture and heritage, cultural wellbeing, and social wellbeing, particularly at significant sites.

Use values - Primary production

Ko ngā mahi māra me ngā mahi ahu matua / Cultivation and primary production

Primary production

The rivers support regionally and nationally significant primary production in the catchment (agricultural,

- The rivers support a wide variety of primary production in the catchment, including dairy, meat, wool, horticulture and forestry.
- Due to the economies of scale of these industries, other service sectors, such as agritech, aviation and manufacturing, are able to operate.

¹³ Federated Farmers V1PC1-106

horticultural, forestry). These
industries contribute to the
economic, social and cultural
wellbeing of people and
communities, and are the
major component of wealth
creation within the region.
These industries and associated
primary production also
support other industries and
communities within rural and
urban settings.

- These industries combined contribute significantly to regional and national GDP, exports, food production and employment.
- The rivers and the surrounding land offer unique opportunities for many communities and industries to operate, contributing to the lifestyle and sense of community, pride and culture in rural and urban¹⁴ Waikato.

Water supply

Ko ngā hapori wai Māori / Municipal and domestic water supply

Water supply

The rivers provide for community water supply, municipal supply and, drinkable water supply and health. 15

The catchments' surface and subsurface water is of a quality that can be effectively treated to meet appropriate health standards for both potable and non-potable uses.

Use values Commerical, municipal and industrial use

Ko ngā āu putea / Economic or commercial development

Commercial, municipal and industrial use

The springs, rivers, lakes and wetlands provide economic opportunities to people, businesses and industries.

Fresh water is used for industrial and municipal processes, which rely on the assimilative capacity for discharges to surface water bodies. In addition:

- The Springs, rivers, lakes and wetlands provide for economic wellbeing, financial and economic contribution, individual businesses and the community and the vibrancy of small towns. They are working springs, rivers, lakes and wetlands; they create wealth.
- Those industries are important to the monetary economy of Waikato region, enabling a positive brand to promote to overseas markets.
- The Springs, rivers, lakes and wetlands provide for domestic and international tourism. Promotion of a clean, green image attracts international and domestic visitors.
- The Springs, rivers, lakes and wetlands provide assimilative capacity for wastewater disposal, flood and stormwater, and ecosystem services through community schemes or on site disposal.

Use values - Electricty generation

Electricity generation

The river provides for reliable, renewable hydro and geothermal energy sources and thermal generation, securing

Waikato hydro scheme extends over 186km, comprising Lake Taupō storage, dams, lakes, and power stations. Tongariro Power scheme adds 20 per cent to natural inflows to Lake Taupō.

¹⁴ Hamilton CC PC1-10067

¹⁵ Federated Farmers V1PC1-117

national self-reliance and	
resilience	

New Zealand's social and economic wellbeing are dependent on a secure, cost-effective electricity supply system. Renewable energy contributes to our international competitive advantage. Electricity also contributes to the health and safety of people and communities.

- Huntly Power Station's role in the New Zealand electricity system is pivotal, particularly when weather dependent renewable generation is not available.
 Fresh water is used for cooling and process water.
- Geothermal power stations located on multiple geothermal systems use fresh water for cooling, process water and drilling.

Use values - Mitigating flood hazards

Mitigating flood hazards

Flood management systems protect land used and inhabited by people <u>and</u> <u>livestock</u>.¹⁶

 River engineering, including stopbanks and diversions, protect land and infrastructure from damage by flooding.

3.11.2 Objectives/Ngā Whāinga

Objective 1: Long-term restoration and protection of water quality for each sub-catchment and Freshwater Management Unit/Te Whāinga 1: Te whakaoranga tauroa me te tiakanga tauroa o te kounga wai ki ia riu kōawaawa me te Wae Whakahaere i te Wai Māori

By 2096 <u>at the latest</u>¹⁷, discharges of nitrogen, phosphorus, sediment and microbial pathogens to land and water result<u>s</u> in achievement of the restoration and protection of the <u>Waikato and Waipā Rivers</u>, such that of the 80-year water quality attribute <u>targets</u> states¹⁸ in Table 3.11-1 <u>are met</u>¹⁹.

Objective 2: Social, economic, spiritual and cultural wellbeing and prosperity is maintained in the long term/Te Whāinga 2: Ka whakaūngia te oranga ā-pāpori, ā-ōhanga, ā-ahurea hoki i ngā tauroa

Waikato and Waipā communities and their economy benefit from the restoration and protection of water quality in the Waikato and Waipā²⁰ River catchments, which enables the people and communities, in particular the River Iwi, to continue to provide for their social, economic, spiritual and cultural wellbeing and prosperity.

Objective 3: Short-term improvements in water quality in the first stage of restoration and protection of water quality for each sub-catchment and Freshwater Management Unit/Te Whāinga 3: Ngā whakapainga taupoto o te kounga wai i te wāhanga tuatahi o te whakaoranga me te tiakanga o te kounga wai i ia riu kōawāwa me te Wae Whakahaere Wai Māori 21

¹⁶ Hamilton CC PC1-10167

¹⁷ Tangata Whenua – Waikato and Waipā River Iwi PC1-3245

¹⁸ Fonterra PC1-10455

¹⁹ Watercare PC1-8450; Beef and Lamb PC1-11154

²⁰ Mercury NZ Ltd PC1-9506

²¹ Watercare PC1-8450

Actions put in place and implemented by 2026 to reduce <u>diffuse and point source</u>²² discharges of nitrogen, phosphorus, sediment and microbial pathogens, are sufficient to achieve <u>the short-term freshwater objectives</u> in Table 3.11-1²³ <u>being ten percent of the required change between current water quality and the 80-year water quality states in Table 3.11-1. A ten percent change towards the long term water quality improvements is indicated by the short term water quality attribute targets in Table 3.11-1.</u>

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

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

- a. considering the values and uses when taking action to achieve the attribute^ targets^ for the Waikato and Waipā Rivers in Table 3.11-1: and
- b. recognising that further contaminant reductions will be required by subsequent regional plans and signalling anticipated future management approaches that will be needed to meet Objective 1.

OR

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

A staged approach to <u>reducing discharges of contaminants</u> change ²⁴ enables people and communities to undertake adaptive management to continue to provide for their social, economic and cultural wellbeing in the short term while:

- a. considering the values and uses when²⁵ taking action to achieve the <u>hargets</u> freshwater objectives and long-term water quality states²⁶ for the Waikato and Waipā Rivers in Table 3.11-1; and
- b. recognising that further contaminant reductions will be required by subsequent regional plans and signalling-anticipated future management approaches that will be needed required to meet Objective 1²⁸.

Objective 5<mark>: Mana Tangata – protecting and restoring tangata whenua values/Te Whāinga 5: Te Mana Tangata – te tiaki me te whakaora i ngā uara o te tangata whenua</mark>

Tangata whenua values are integrated into the co-management of the rivers and other water bodies within the catchment such that:

- a. tangata whenua have the ability to:
 - i. manage their own lands and resources, by exercising mana whakahaere, for the benefit of their people; and
 - ii. actively sustain a relationship with ancestral land and with the rivers and other water bodies in the catchment; and
- b. new impediments to the flexibility of the use of tangata whenua ancestral lands are minimised; and
- c. improvement in the rivers' water quality and the exercise of kaitiakitanga increase the spiritual and physical wellbeing of iwi and their tribal and cultural identity.

Objective 6: Whangamarino Wetland/Te Whāinga 6: Ngā Repo o Whangamarino

- a. <u>Nitrogen, phosphorus, sediment and microbial pathogen loads in the catchment of Whangamarino Wetland are reduced in the short term, to make progress towards the long term restoration of Whangamarino Wetland; and</u>
- b. <u>The management of contaminant loads entering Whangamarino Wetland is consistent with the achievement of the water quality attribute^targets^ in Table 3.11-1.</u>

OR

Objective 6: Whangamarino Wetland/Te Whāinga 6: Ngā Repo o Whangamarino

²² DoC PC1-10540

²³ Southern Pastures Ltd Partnership PC1-11095

²⁴ Rotorua Lakes DC PC1-2468

²⁵ Southern Pastures Ltd Partnership PC1-11096 and Ata Rangi PC1-6113

²⁶ Fonterra PC1-10451

²⁸ Rotorua Lakes DC PC1-2468

- a. <u>Nitrogen, phosphorus, sediment and microbial pathogen loads in the catchment of Whangamarino Wetland are reduced in the short term, to make progress towards the long-term restoration of Whangamarino Wetland; and</u>
- b. The management of contaminant loads entering Whangamarino Wetland is consistent with the achievement of the water quality attribute^targets^ in Table 3.11-1.

Principal Reasons for Adopting Objectives 1-6/Ngā Take Matua me Whai ngā Whāinga 1 ki te 6

Reasons for adopting Objective 1

Objective 1 sets long term limits^ for water quality consistent with the Vision and Strategy. Objective 1 sets aspirational 80-year water quality targets^, which result in improvements in water quality from the current state monitored in 2010-2014. The water quality attributes^ listed in Table 3.11-1 that will be achieved by 2096 will be used to characterise the water quality of the different FMUs when the effectiveness of the objective is assessed.²⁹ Objective 1 sets the overall context for what is to be achieved in terms of water quality improvements. There is not any hierarchy of Objectives 1 to 6³⁰

Reasons for adopting Objective 2

Objective 2 sets the long term outcome for people and communities, recognising that restoration and protection of water quality will continue to support communities and the economy. The full achievement of the Table 11-1 2096 water quality attribute^ targets^ may require a potentially significant departure from how businesses and communities currently function, and it is important to minimise social disruption during this transition.³¹

Reasons for adopting Objective 3

Objective 3 sets short term goals for a 10-year period, to show the first step toward full achievement of water quality consistent with the Vision and Strategy.

The effort required to make the first step may not be fully reflected in water quality improvements that are measureable in the water in 10 years. For this reason, the achievement of the objective will rely on measurement and monitoring of actions taken on the land to reduce pressures on water quality.

Point source discharges are currently managed through existing resource consents, and further action required to improve the quality of these discharges will occur on a case by case basis at the time of consent renewal, guided by the targets and limits set in Objective 1.³²

Reasons for adopting Objective 4

Objective 4 provides for a staged approach to long-term achievement of the Vision and Strategy. It acknowledges that in order to maintain the social, cultural and economic wellbeing of communities during the 80-year journey, the first stage (the short term 10-year period) must ensure that overall costs to people can be sustained.

In the future, a property level allocation of contaminant discharges may be required. Chapter 3.11 sets out the framework for collecting the required information so that the most appropriate approach can be identified. Land use type or intensity at July 2016 will not be the basis for any future allocation of property level contaminant discharges. Therefore, consideration is needed of how to manage impacts in the transition.

Objective 4 seeks to minimise social disruption in the short term, while encouraging preparation for possible future requirements.

Reasons for adopting Objective 5

²⁹ Watercare PC1-8450; Beef and Lamb PC1-111541

³⁰ Oii Ltd PC1-6392

³¹ Forest and Bird PC1-8220

³² Watercare PC1-8450

Objective 5 seeks to ensure that this Plan recognises and provides for the relationship of tangata whenua with ancestral lands, by ensuring the other provisions of Chapter 3.11 do not provide a further impediment to tangata whenua making optimal use of their land. Historic impediments included customary tenure in the nineteenth century, public works, rating law, Te Ture Whenua Māori Act, and confiscation. Some impediments or their effects continue currently, including issues of governance, fragmentation and compliance with central and local government regulations such as regional and district plans, or the emissions trading scheme. Land relevant to this objective is land returned through Treaty of Waitangi settlement, and land under Māori title that has multiple owners.

Reasons for adopting Objective 6

Objective 6 seeks to recognise the significant value of Whangamarino Wetland, a Ramsar site of international importance, and the complexity of this wetland system. It seeks to recognise that the bog ecosystems (which are particularly sensitive to discharges of contaminants) need protection over time. The effort required to restore Whangamarino Wetland over 80 years is considerable and as a minimum needs to halt and begin to reverse the decline in water quality in the first 10 years. This objective describes how wetland restoration needs to be supported by restoration of the Lower Waikato Freshwater Management Unit sub-catchments that flow into Whangamarino Wetland.

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

Manage and reduce Manage and require reductions in³³ catchment-wide and³⁴ sub-catchment-wide diffuse³⁵ discharges of nitrogen, phosphorus, sediment and microbial pathogens, by:

- a1. Requiring all farming activities to operate at Good Farming Practice, or better; and 36
- a2. Establishing, , a Nitrogen Reference Point for all properties; and 37
- a. Enabling farming activities with a low level of contaminant discharge to water bodies provided those discharges do not increase³⁸; 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 subcatchment³⁹: 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 clear and enduring reductions of nitrogen leaching, with resource consents specifying an amount of reduction or changes to practices required to take place; and⁴⁰
- <u>b2.</u> Where Good Farming Practices are not adopted, to specify controls in a resource consent that ensures contaminant losses will be reducing.⁴¹
- b3. Except as provided for in Policies [1(a) and] 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 42
- b4. Except as provided for in Policies [1(a) and] 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 will be achieved; and⁴³
- c. Progressively excluding cattle, horses, deer and pigs from rivers, streams, drains, wetlands and lakes.

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

Manage and reduce Manage and require reductions in⁴⁴ catchment-wide and⁴⁵ sub-catchment-wide ⁴⁶ diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens from farming activities on properties, through Farm Environment Plans⁴⁷ that:

- <u>a1. Set out clear, specific and timeframed</u> <u>actions and minimum standards</u> <u>to achieve and maintain</u> for Good Farming <u>Practice or better; and 48</u>
- a2. Set out clear, specific and timeframed actions and minimum standards to demonstrate that the relevant reductions in nitrogen and other contaminant losses in Policy 1 are met, or will be met, and maintained; and

³³ DoC PC1-10643

³⁴ WRC V1PC1-1497

 $^{^{35}}$ Fert NZ PC1-9707, Federated Farmers V1PC1-162

³⁶ Dairy NZ PC1-10196

 $^{^{}m 37}$ Hort NZ PC1-10051, Hira Bhana and Co Ltd PC1-4020 (shifted from Pol 2 with modifications)

³⁸ Beef and Lamb PC1-12576

³⁹ Beef and Lamb PC1-12711 (shifted from Pol 2 with modifications)

⁴⁰ C and G Tierney PC1-7717, Sinclair Family Trust PC1-6180, Federated Farmers V1PC1-357

 $^{^{\}rm 41}$ Consequential to DairyNZ PC1-10196

⁴² DoC PC1-71759

⁴³ DoC PC1-71759

⁴⁴ DoC PC1-10643

⁴⁵ WRC V1PC1-1497

⁴⁶ Consequential to WRC V1PC1-1497

⁴⁷ Federated Farmers V1PC1-172

⁴⁸ Ballance PC1-6862, FANZ PC1-9712

- a.3. 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 a Farm Environment Plan either associated with a resource consent, or in specific requirements established by participation in a Certified Industry Scheme⁴⁹; and
- <u>Undergo</u> Requiring the same level of rigour in developing, monitoring and auditing of mitigation actions on the land that is each 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 Schemes⁵⁰; 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; 51 and
- <u>b3. Identify the information that is required to be recorded to support an accounting system for each Freshwater</u>
 <u>Management Unit for the diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens.</u>
- c. Establishing a Nitrogen Reference Point for the property or enterprise; and 52
- 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; and⁵³
- 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 2026.⁵⁴

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

<u>Provide for commercial vegetable production while reducing Manage and require reductions in</u> diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens <u>by:</u> <u>from commercial vegetable production through a tailored, property or enterprise-specific approach where:</u>

- a. <u>Enabling commercial vegetable production activities</u> on a property or properties, Flexibility is provided including the flexibility to undertake crop rotations on changing parcels of land for commercial vegetable production, within sub-catchments, while reducing average contaminant discharges over time adopting sector-based initiatives and other mitigation measures to progressively reduce losses of nitrogen, phosphorus, sediment and microbial pathogens; and
- The maximum area in production for a property or enterprise is established and capped utilising commercial vegetable production data from the 10 years up to 2016; and
- c. <u>Establishing baselines for the following, for properties used for commercial vegetable production, using data from each year in the 5 year period 1 July 2011 to 30 June 2016;</u>
 - (i) the total, maximum area of land in commercial vegetable production; and
 - (ii) the maximum areas of land and their locations per sub-catchment; and
 - (iii) the nitrogen and phosphorus surpluses (ie total applied nutrient inputs, less crop uptake) for each commercial vegetable production crop; and
 - iv) sediment. Establishing a Nitrogen Reference Point for each property or enterprise;
- d. A 10% decrease in the diffuse discharge of nitrogen and Enabling commercial vegetable production that clearly demonstrates a tailored reduction in the diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens as measured against the baselines identified in b above of all contaminants through adherence to Good Farming Practice, Farm Environment Plans and relevant minimum standards; is achieved across the sector through the implementation of Best or Good Management Practices; and
- e. Identified mitigation actions are set out and implemented within timeframes specified in either a Farm Environment Plan and associated resource consent, or in specific requirements established by participation in a Certified Industry Scheme.
- f. Commercial vegetable production enterprises that reduce nitrogen, phosphorus, sediment and microbial pathogens are enabled; and
- g. The degree of reduction in diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens is proportionate to the amount of current discharge (those discharging more are expected to make greater reductions), and the scale of water quality improvement required in the sub-catchment.

⁴⁹ South Waikato District Council PC1-12522

⁵⁰ Huirimu Farms Ltd PC1-5909, Ata Rangi PC1-6244, Southern Pastures Limited Partnership PC1-11197

⁵¹ Federated Farmers V1PC1 -175

⁵² Hort NZ PC1-10051, Hira Bhana and Co Ltd PC1-4020 (shifted to Pol 1 with modifications)

⁵³ Beef and Lamb PC1-12711 (shifted to Pol 1 with modifications)

⁵⁴ G and J Jeffries PC1-12802

- 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.⁵⁵

Policy 3A: Certified Sector Schemes

Waikato Regional Council will support the development of Certified Sector Schemes as groups or organisations responsible for preparing and monitoring the implementation of Farm Environment Plans by:

- a. Setting out minimum standards for Certified Sector Schemes in Schedule 2; and
- Establishing a process for approving Certified Sector Schemes based on their ability to meet the minimum standards, including entering into a contractual agreement with each Certified Sector Scheme to meet and maintain those standards; and
- c. Requiring independent audit of the performance of Certified Sector Schemes in preparing and monitoring the implementation of Farm Environment Plans for their members.⁵⁶

Policy 4: <u>Future diffuse</u> discharge reductions <u>Enabling activities with lower discharges to continue</u> or to be established while signalling further change may be required in future/Te Kaupapa Here 4: Te tuku kia haere tonu, kia whakatūria rānei ngā tūmahi he iti iho ngā rukenga, me te tohu ake ākuanei pea me panoni anō hei ngā tau e heke mai ana

Manage sub-catchment-wide diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens, and enable existing and new low discharging activities to continue provided that cumulatively the achievement of Objective 3 is not compromised. Activities and uses currently defined as low dischargers may in the future need to To recognise that future regional plan changes or regional plans are likely to require all farming activities to make further reductions in the take mitigation actions that will reduce diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens in order for Objective 1 to be met.⁵⁷

To only grant resource consents that authorise farming activities for a longer duration (more than 10 years) where the application demonstrates that the long-term water quality states in Table 3.11-1 are currently being met. 58

Policy 5: Staged approach/Te Kaupapa Here 5: He huarahi wāwāhi

To recognise that:

- a. All urban and rural land use activities will need to contribute to achieving the water quality attribute states in Table 3.11-1; and
- b. Changes in practices and activities need to start immediately⁶¹; and
- b1. Development of management, recording and reporting systems will need to be progressively implemented over time to ensure effective changes are made as system knowledge and industry resourcing allows; and
- c. The rate of change will need to be staged over 80 years to minimise social, economic, 62 spiritual and cultural disruption and enable innovation and new practices to develop; and
- d. Responding to the reasonably foreseeable effects of climate change will mean that different regulatory and nonregulatory responses may be needed in future. 63

Recognise that achieving the water quality attribute^ targets^ set out in Table 11-1 will need to be staged over 80 years, to minimise social disruption and allow for enable innovation and new practices to develop, while making a start on reducing

⁵⁵ 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

⁵⁶ Huirimu Farms Ltd PC1-5909, Ata Rangi PC1-6244, Waipapa Farms Ltd and Carlyle Holdings Ltd PC1-4704

⁵⁷ C Barker PC1-3748

⁵⁸ Federated Farmers PC1-12754, FANZ PC1-11176

⁶⁰ Winstone Aggregates PC1-3607

⁶¹ Forest and Bird PC1-8257

⁶² Charion Investment Trust PC1-7748

⁶³ WRC PC1-2985

discharges of nitrogen, phosphorus, sediment and microbial pathogens, and preparing for further reductions that will be required in subsequent regional plans.

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

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

Land use change consent applications that demonstrate clear and enduring decreases in existing diffuse discharges of nitrogen, phosphorus, sediment or microbial pathogens will generally be granted.⁶⁴

Policy 7: Preparing for future management regime (including allocation)/Te Kaupapa Here 7: Kia takatū ki ngā tohanga hei ngā tau e heke mai ana

Prepare for further diffuse discharge reductions and any future management regime (including allocation of diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens) in subsequent regional plans by collecting information and undertaking research to support this. This includes collecting information about current discharges, developing appropriate modelling tools to estimate contaminant discharges, and researching the spatial variability of land use and contaminant losses and the effect of contaminant discharges in different parts of the catchment, to assist in preparing any future management regime.

Any future management regime (including allocation) should consider the following principles:

- a. Allowance for flexibility of development of tangata whenua ancestral land; and
- b. Minimise social disruption and costs in the transition to any new approach; and
- c. New data and knowledge relevant to contaminant discharges and allocation of contaminant loadings. 65

Policy 8: Prioritised implementation/Te Kaupapa Here 8: Te raupapa o te whakatinanatanga

Prioritise the management of <u>diffuse discharges of nitrogen</u>, <u>phosphorus</u>, <u>sediment and microbial pathogens</u> <u>land and water</u> <u>resources by implementing Policies 2, 3 and 9, and 66 in accordance with the prioritisation of areas set out in Table 3.11-2.70 <u>Priority areas include:</u></u>

- a. Sub-catchments where there is a greater gap between the water quality targets^ in Objective 1 (Table 3.11-1) and current water quality; and
- b. Lakes Freshwater Management Units^; and
- c. Whangamarino Wetland.

In addition to the priority sub-catchments listed in Table 3.11-2, the 75th percentile nitrogen leaching value dischargers will also be prioritised for Farm Environment Plans. 71

Policy 10: Provide for point source discharges of regional significance/Te Kaupapa Here 10: Te whakatau i ngā rukenga i ngā pū tuwha e noho tāpua ana ki te rohe

When deciding resource consent applications for point source discharges of nitrogen, phosphorus, sediment and microbial pathogens to water or onto or into land, have regard to the benefits of:

- a. Continued operation of regionally significant infrastructure; and
- b. Continued operation of regionally significant industry.

⁶⁴ Federated Farmers V1PC1-194

⁶⁵ Jack Farms PC1-8026, H and S Brooks PC1-84, Sieling Farms PC1-5465

⁶⁶ Ravensdown PC1-10119

⁷⁰ DoC PC1-10670

⁷¹ Fonterra PC1-10489 (consequential to option to add dairy farming)

Policy 11: Application of Best Practicable Option and mitigation or offset of effects to point source discharges/Te Kaupapa Here 11: Te whakahāngai i te Kōwhiringa ka Tino Taea me ngā mahi whakangāwari pānga; te karo rānei i ngā pānga ki ngā rukenga i ngā pū tuwha

Require any person undertaking a point source discharge of nitrogen, phosphorus, sediment or microbial pathogens to water or onto or into land in the Waikato and Waipā River catchments to, as a minimum, 75 adopt the Best Practicable Option* to avoid or mitigate the adverse effects of the discharge, at the time a resource consent application is decided 76.

Where it is not practicable to avoid or mitigate all any⁷⁷ adverse effects, cannot be reasonably avoided, they should be mitigated, and where they cannot be reasonably mitigated, and offset measure may be proposed in an alternative location or locations to the point source discharge, for the purpose of ensuring positive effects on the environment to lessen any residual adverse effects of the discharge(s) that will or may result from allowing the activity provided that the:

- a. Primary discharge does not result in any significant or or of toxic adverse effect at the point source discharge location; and
- b. Offset measure is for the same contaminant; and
- c. Offset measure occurs upstream within the same sub-catchment in which the primary discharge occurs and if this is not practicable, then upstream within the same Freshwater Management Unit^ or a Freshwater Management Unit^ located upstream, and
- d. Offset measure remains in place for the duration of the consent and is secured by consent condition or another legally binding mechanism; 80 and
- e. Offset measure provides for a net decrease in the amount of the relevant contaminant in the receiving environment.

Policy 12: Additional considerations for Considering point source discharges in relation to water quality targets/Te Kaupapa Here 12: He take ano hei whakaaro ake mo nga rukenga i nga pu tuwha e pa ana ki nga whainga a-kounga wai

When deciding a resource consent application, consider⁸¹ the contribution made by a point source discharge to the nitrogen, phosphorus, sediment and microbial pathogen sub-catchment, catchment and Freshwater Management Unit loads and the impact of that contribution on the likely⁸² achievement of the freshwater objectives in Table 3.11-1Objective 3-or the progression towards the 80-year water quality states targets in Objective 1Table 3.11-1⁸³, taking into account:

- The relative proportion of nitrogen, phosphorus, sediment or microbial pathogens that the particular point source discharge contributes to the catchment load; and
- b. Past technology upgrades undertaken to model, monitor and⁸⁴ reduce the discharge of nitrogen, phosphorus, sediment or microbial pathogens within the previous consent term; and
- c. The abilityWhether it is appropriate to stage future mitigation actions to allow investment costs to be spread over time and to⁸⁵ meet the water quality states^ targets^ specified above.; and
- d. The diminishing return on investment in treatment plant upgrades in respect of any resultant reduction in nitrogen, phosphorus, sediment or microbial pathogens when treatment plant processes are already achieving a high level of contaminant reduction through the application of the Best Practicable Option*. Sediment of the application of the Best Practicable Option*. Sediment of the application of the Best Practicable Option*. Sediment of the application of the Best Practicable Option*. Sediment of the application of the Best Practicable Option*.

Policy 13: Point sources consent duration/Te Kaupapa Here 13: Te roa o te tukanga tono whakaaetanga mō te pū tuwha

When determining an appropriate duration for any point source discharge⁸⁷ consent granted, consider the following matters:

 $^{^{75}}$ BT Mining PC1-9924

⁷⁶ Tangata Whenua – Waikato and <mark>Waipā</mark> River Iwi PC1-3349

⁷⁷ DoC PC1-10694

⁷⁸ DoC PC1-10694

⁷⁹ Fish & Game PC1-10887

⁸⁰ GBC Winstone PC1-2947

⁸¹ Hamilton CC PC1-10843

⁸² Tangata Whenua – Waikato and Waipā River Iwi PC1-3353

⁸³ Fonterra PC1-10609

⁸⁴ Hamilton CC PC1-10843

⁸⁵ Fish & Game PC1-10888

⁸⁶ Tangata Whenua – Waikato and Waipā River Iwi PC1-3353

⁸⁷ Mercury PC1-9577

- a. <u>The appropriateness of a longer consent duration</u> (more than 10 years) A consent term exceeding 25 years, where the applicant demonstrates that the 80-year water quality states in Table 3.11-1 are currently being met approaches set out in Policies 11 and 12 will be met⁸⁸; and
- b. The magnitude and significance of the investment made or proposed to be made in contaminant reduction measures and any resultant improvements in the receiving water quality; and
- c. The need to provide appropriate certainty of investment where contaminant reduction measures are proposed (including investment in treatment plant upgrades or land based application technology).

Policy 14: Lakes Freshwater Management Units/Te Kaupapa Here 14: Ngā Wae Whakahaere Wai Māori i ngā Roto

Restore and protect lakes by 2096 through the implementation of a tailored lake-by-lake approach, guided by Lake Catchment Plans prepared over the next 10 years, which will include collecting and using data and information to support improving the management of land use⁸⁹ activities within the lakes Freshwater Management Units^.

Policy 15: Whangamarino Wetland/Te Kaupapa Here 15: Ngā Repo o Whangamarino

<u>Protect and make progress towards restoration of Whangamarino Wetland by reducing the diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens in the sub-catchments that flow into the wetland to:</u>

- a. Reduce and minimise further loss of the bog ecosystem; and
- b. Provide increasing availability of mahinga kai; and
- c. Support implementation of any catchment plan prepared in future by Waikato Regional Council that covers Whangamarino Wetland.

Policy 16: Flexibility for development of land returned under Te Tiriti o Waitangi settlements and multiple owned Māori land/Te Kaupapa Here 16: Te hangore o te tukanga mō te whakawhanaketanga o ngā whenua e whakahokia ai i raro i ngā whakataunga kokoraho o Te Tiriti o Waitangi me ngā whenua Māori kei raro i te mana whakahaere o te takitini

For the purposes of considering land use change applications under Rule 3.11.5.7, land use change that enables the development of tangata whenua ancestral lands shall be managed in a way that recognises and provides for:

- a. The relationship of tangata whenua with their ancestral lands; and
- b. The exercise of kaitiakitanga; and
- c. The creation of positive economic, social and cultural benefits for tangata whenua now and into the future;

Taking into account:

- Best management practice actions for nitrogen, phosphorus, sediment and microbial pathogens for the proposed new type of land use; and
- ii. The suitability of the land for development into the proposed new type of land use, reflecting the principles for future allocation as contained in Policy 7, including the risk of contaminant discharge from that land and the sensitivity of the receiving water body; and
- iii. The short term <u>water quality attribute states</u> targets△90 to be achieved in Objective 3.

Policy 17: Considering the wider context of Te Ture Whaimana/Te Kaupapa Here 17: Te whakaaro ake ki te horopaki whānui o Te Ture Whaimana

When applying policies and methods in Chapter 3.11, seek opportunities to advance the objectives and strategies within Te Ture Whaimana and the values[^] for the Waikato and Waipā Rivers, but could be considered secondary benefits of methods carried out under this Chapter ⁹¹.

⁸⁸ Forest & Bird PC1-8325

⁸⁹ Tangata Whenua – Waikato and Waipā River Iwi PC1-3404

⁹⁰ Fonterra PC1-10451

⁹¹ DoC PC1-10746 and Fish and Game PC1-10906

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Waikato and Waipā River Iwi - Consolidated PC1

3.11.4 Implementation methods/Ngā tikanga whakatinana

3.11.4.1 Working with others/Te mahi tahi me ētehi atu

Waikato Regional Council will work with stakeholders including Waikato River iwi partners, Waikato River Authority, Waikato River Restoration Strategy partners, Department of Conservation, territorial authorities, industry and sector bodies, to implement Chapter 3.11 including all the following methods in 3.11.4. This will include coordinating priorities, funding and physical works, promoting awareness and providing education, to assist in giving effect to the Vision and Strategy for the Waikato River/Te Ture Whaimana o Te Awa o Waikato for the Waikato and Waipā Rivers.

3.11.4.2 Certified Industry Scheme/Te kaupapa ā ahumahi kua whai tohu

Waikato Regional Council will develop an industry certification process for industry bodies as per the standards outlined in Schedule 2. The **Certified Industry Scheme** will include formal agreements between parties. Agreements will include:

- a. Provision for management of the Certified Industry Schemes;
- b. Oversight, and monitoring of Farm Environment Plans;
- c. Information sharing;
- d. Aggregate reporting on Certified Industry Scheme implementation; and
- e. Consistency across the various Certified Industry Schemes

3.11.4.3 Farm Environment Plan/Ngā Mahere Taiao ā-Pāmu

Waikato Regional Council will prepare parameters and minimum requirements for the development of a certification process for professionals to develop, certify and monitor Farm Environment Plans in a consistent approach across the region. A Farm Environment Plan will be prepared by a certified person as per the requirements outlined in Schedule 1, and will assess the risk of diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens and specify actions to reduce those risks in order to bring about reductions in the discharges of those contaminants. Waikato Regional Council will develop guidance for risk assessments, auditing and compiling Farm Environment Plans.

Waikato Regional Council will take a risk based approach to monitoring Farm Environment Plans, starting with more frequent monitoring and then moving to monitoring based on risk assessment. Robust third party audit (independent of the farmer and Certified Farm Environment Planner) and monitoring will be required.

3.11.4.4 Lakes and Whangamarino Wetland/Ngā Roto me ngā Repo o Wangamarino

Waikato Regional Council, working with stakeholders, will:

- a. Review the areas demarcated as Lakes Freshwater Management Unit when an assessment of the roundwater contribution to each Lake is determined and compared with the surface water catchment.
- b. Build on the Shallow Lakes Management Plan by prioritising the development of Lake Catchment Plans and investigate lake-specific options to improve water quality and ecosystem health, and manage pest species. In many instances, this may require an adaptive management approach.
- c. Prepare and implement Lake Catchment Plans with community involvement which include:
 - A vision for the lake developed in consultation with relevant stakeholders (including the community).
 - ii. Description of the desired state of lake and recognition of the challenges (e.g. costs) and opportunities (e.g. benefits) in achieving it.
 - iii. An evidence-based description of the problem (i.e. what is the gap between the current state and desired state) that recognises the presence of multiple stressors and uncertainty in responses and time frames.
 - iv. Community engagement in defining actions that will move the lake towards its desired state.
 - v. Responsibility for achieving the agreed actions and expected timeframes, developed in consultation with those who will be undertaking the work.
 - vi. A monitoring regime that will provide evidence of the implementation of the defined actions and any changes in the state of the lake.
- d. <u>As a priority, undertake the development and implementation of the Lake Waikare and Whangamarino Wetland Catchment Management Plan using the process set out in b).</u>
- e. Work towards managing the presence of pest weeds and fish in the shallow lakes and connected lowland rivers area, including Whangamarino Wetland.
- f.— Support research and testing of restoration tools and options to maintain and enhance the health of shallow lakes <u>and</u>
 <u>Whangamarino Wetlands</u> (e.g. lake modelling, lake bed sediment treatments, constructed wetlands, floating wetlands, silt traps, pest fish management, and farm system management tools).
- g. Support lake <u>and Whangamarino Wetland</u> restoration programmes including, but not limited to, advice, funding, and project management. Restoration programmes may have a wider scope than water quality, including hydrological restoration, revegetation and biodiversity restoration.

h. Develop a set of 10-year water quality attribute^ targets^ for each lake Freshwater Management Unit^.

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

Waikato Regional Council will work with relevant stakeholders to develop **sub-catchment** scale plans (where a catchment plan does not already exist) where developing a plan would result in achieving the 10-year freshwater objectives in Table 3.11-1 more efficiently. **Sub-catchment** scale planning will:

- a. Identify the causes of current water quality decline, identify cost-effective measures to bring about reductions in contaminant discharges, and coordinate the reductions required at a **property**, **enterprise** and **sub-catchment** scale (including recommendations for funding where there is a public benefit identified).
- b. Align works and services to reduce nitrogen, phosphorus, sediment and microbial pathogen discharges including riparian management, targeted reforestation, constructed wetlands, sediment traps and sediment detention bunds.
- Assess and determine effective and efficient placement of constructed wetlands at a sub-catchment scale to improve water quality.
- d. Support research that addresses the management of wetlands, including development of techniques to monitor ecological change and forecasting evolution of wetland characteristics resulting from existing land use in the wetland catchments.
- e. Integrate the regulatory requirements to fence waterways with the requirements for effective drainage scheme management.
- f. Coordinate funding of mitigation work by those contributing to water quality degradation, in proportion to that contribution.
- g. Utilise public funds to support edge of field mitigations where those mitigations provide significant public benefit.

3.11.4.6 Funding and implementation/Te putea me te whakatinanatanga

Waikato Regional Council will:

- a. Provide staff resources and leadership within the organisation for the implementation of Chapter 3.11.
- b. Seek to secure funding for the implementation of Chapter 3.11 through the annual plan and long term plan processes.

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

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

- a. Implementing processes that will support the setting of property or enterprise level diffuse discharge limits in the future.
- b. Researching:
 - i. The quantum of contaminants that can be discharged at a sub-catchment and Freshwater Management Unit^ scale while meeting the Table 3.11 1 water quality attribute^ targets^.
 - ii. Methods to categorise and define 'land suitability'.
 - iii. Tools for measuring or modelling discharges from individual properties, enterprises and sub-catchments, and how this can be related to the Table 3.11 1 water quality attribute^ targets^.

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

Waikato Regional Council will:

- a. Develop discharge allocation frameworks for individual **properties** and **enterprises** based on information collected under Method 3.11.4.7, taking into account the best available data, knowledge and technology at the time; and
- b. Use this to inform future changes to the Waikato Regional Plan to manage discharges of nitrogen, phosphorus, sediment and microbial pathogens at a property or enterprise level to meet the targets^ in the Objectives.

3.11.4.9 Managing the effects of uban development/Te whakahaere i ngā pānga o te whanaketanga ā-tāone

Waikato Regional Council will:

a. Continue to work with territorial authorities to implement the Waikato Regional Policy Statement set of principles that guide future development of the built environment which anticipates and addresses cumulative effects over the long term. b. When undertaking sub-catchment scale planning under Method 3.11.4.5 in urban sub-catchments engage with urban communities to raise awareness of water quality issues, and to identify and implement effective solutions for the urban context.

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

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

- Collecting information on nitrogen, phosphorus, sediment and microbial pathogen levels in the respective fresh water bodies in each Freshwater Management Unit^ from:
 - i. Council's existing river monitoring network; and
 - ii. Sub-catchments that are currently unrepresented in the existing monitoring network; and
 - iii. Lake Freshwater Management Units^.
- b. Using the information collected to establish the baseline data for compiling a monitoring plan and to assess progress towards achieving the Table 11-1 water quality attribute^ targets^; and
- c. Using state of the environment monitoring data including biological monitoring tools such as the Macroinvertebrate Community Index to provide the basis for identifying and reporting on long-term trends; and
- d. An information and accounting system for the diffuse discharges from properties and enterprises that supports the management of nitrogen, phosphorus, sediment and microbial pathogens diffuse discharges at an enterprise or property scale.

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

Waikato Regional Council will:

- a. Review and report on the progress towards and achievement of the 80-year water quality objectives of Chapter 3.11.
- b. Research and identify methods to measure actions at a sub-catchment, property and enterprise level, and their contribution to reductions in the discharge of contaminants.
- c. Monitor the achievement of the values for the Waikato and Waipā Rivers and the uses made of those rivers.
- d. Collate data on the number of land use resource consents issued under the rules of this chapter, the number of Farm Environment Plans completed, compliance with the actions listed in Farm Environment Plans, Nitrogen Reference Points for properties and enterprises, and nitrogen discharge data reported under Farm Environment Plans.
- e. Work with industry to collate information on the functioning and success of any Certified Industry Scheme.

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

Waikato Regional Council will:

- a. Develop and disseminate **best management practice** guidelines for reducing the **diffuse discharges** of nitrogen, phosphorus, sediment and **microbial pathogens**; and
- b. Support research into methods for reducing diffuse discharges of contaminants to water. 92

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 $^{^{\}rm 92}$ Fish and Game PC1-10910, J and A Gaston PC1-1083

3.11.5 Rules/Ngā Ture

Delete all references to "enterprise" from the rules. 93

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:
 - Woody vegetation to farming activities; or
 - 2. Any farming activity other than dairy farming to dairy farming; or
 - Any farming activity to Commerical Vegetable Production⁹⁴

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 mo 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:

- 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
- 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. 95,96

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, 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:

- The later of 1 September 2021 or 6 months after this Plan becomes operative, for properties in Priority 1 subcatchments 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;⁹⁷ 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

⁹³ P Brodie PC1-2889, Waitomo DC PC1-10312, G Kilgour PC1-1884

⁹⁴ Fonterra V1PC1-757, Waipā DC PC1-3249, Waitomo DC PC1-10312

⁹⁵ Fonterra V1PC1-757, Waipā DC PC1-3249, Waitomo DC PC1-10312

⁹⁶ H Oatway PC1-6524

⁹⁷ Beef + Lamb V1PC1-1719, J Craig PC1-9675, Drummon Dairy Holdings Ltd PC1-5652, K and A Reese PC1-7784

- 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 98
- 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
 - Any farming activity to Commerical Vegetable Production⁹⁹

3.11.5.2 Permitted Activity Rule – Other Low intensity farming activities/Te Ture mo nga Mahi e Whakaaetia ana – Etehi atu mahi i runga pamu

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, 100 is a permitted activity subject to the following conditions:

A. For all properties:

- 1. The property is registered with the Waikato Regional Council in conformance with Schedule A; and
- 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. No commercial vegetable production occurs; and
- 2B. No dairy farming or grazing of dairy cattle occurs; and
- 2C. No feedlots or sacrifice paddocks are used on the property; and
- 2D . No more than 5% of the land used for farming is used for cropping, including winter forage crops; and 101
- <u>B3</u>. Where tThe 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
 - 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). 102
- <u>C</u>4. Where t<u>T</u>he property or enterprise area is greater than 20 hectares, and either:
 - The stocking rate of the land is less than 6 stock units per hectare; or
 - The only farming activity occurring on the property is the raising, training or housing of horses; or 103
 - 3. The stocking rate of the land is greater than 6 stock units but less than 10 stock units per hectare; and 104
 - 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;

⁹⁸ WRC V1PC1-218

⁹⁹ Fonterra V1PC1-757, Waipā DC PC1-3249, Waitomo DC PC1-10312

¹⁰⁰ Fonterra V1PC1-757, Waipā DC PC1-3249, Waitomo DC PC1-10312

¹⁰¹ J Alcock and J Easton PC1-9217, L Ashton PC1-7032, G Gleeson PC1-6410

¹⁰² P Hurley PC1-1088, Federated Farmers V1PC1-338

¹⁰³ G Kilgour PC1-1906, R Cave PC1-3900

¹⁰⁴ P Keeling PC1-5497, Fonterra V1PC1-765

- whichever is the lesser, over the whole property or enterprise when assessed in accordance with Schedule B: and 105
- 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 106 grazed; and
- d. No winter forage crops are grazed in situ; and
- 2. Where the property or enterprise contains any of the water bodies listed in Schedule C:
 - . 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 107
- <u>f5</u>. For all properties greater than 4.1 hectares, fFrom <u>31 March 2019</u> <u>30 November 2020</u>, in addition to the requirements of Schedule A, the following information <u>is</u> 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. <u>Tonnes of and type of Annual brought in animal feed brought onto the property in the previous 12</u> <u>months-; and 108</u>
- 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 109
- 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).

¹⁰⁵ Fonterra V1PC1-765, Balle Bros Group PC1-11423, Hill Country Farmers Group PC1-7845

¹⁰⁶ Hill Country Farmers PC1-7845

 $^{^{107}}$ G Holmes PC1-4693, Huirimu Farms Ltd PC1-5908, A McGovern PC1-8319

¹⁰⁸ Consequential to Ballance PC1-6570, FANZ PC1-10642

¹⁰⁹ WRC V1PC1-218

¹¹⁰ Shifted from within the rule ((3)(c)).

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 and the associated diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens onto or into land in the 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 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. No commercial vegetable production occurs; 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
- 6. An outline (Table of Contents) of a Farm Environment Plan, prepared in conformance with Schedule 1 and informed and approved by a Certified Farm Environment Planner, is provided to the Council at the time the resource consent application is lodged; and
- <mark>7.</mark> 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
- 8. 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:
 - 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 of an outline (Table of Contents) of the Farm Environment Plan, to relect the specific nature of the farm and achieve the Principles and Objectives of Sehdule 1.
- ii. The date a final audited Farm Environment Plan is to be provided to the Council.
- iii. 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.
- 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. Where the Nitrogen Reference Point exceeds the 50th percentile and is less than the 75th percentile nitrogen leaching value, demonstrate methods for clear and enduring reductions of nitrogen leaching, with anticipated reductions set, and practices to achieve those reductions and timeframes detailed.
- vii. The term of the resource consent.
- viii. The timeframe and circumstances under which the consent conditions may be reviewed, including the review of conditions requiring implementation of specific on-farm mitigation measures to ensure they reflect changes to Good Farming Practices that may occur over time.
- ix. Procedures for reviewing, auditing compliance with, amending and re-approving the Farm Environment Plan.

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 tThe use of land for farming and the associated diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens onto or into land in the circumstances which may result in those contaminants entering water 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 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. <u>1 January 2023 1 September 2024 for properties or enterprises in Priority 2 sub-catchments listed in Table 3.11-2;</u>
- 3. 1 January 2026 for properties or enterprises in Priority 3 sub-catchments listed in Table 3.11-2;¹¹² 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 in conformance with Schedule B; and
- 3. No commercial vegetable production occurs; and
- 4. An outline (Table of Contents) of a Farm Environment Plan, prepared in conformance with Schedule 1 and informed approved by a Certified Farm Environment Planner, is provided to the Council at the time the resource consent application is lodged; and 113
- 5. Cattle, horses, deer and pigs are excluded from water bodies in accordance with Schedule C; and 114
- 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 115
- 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:
 - Woody vegetation to farming activities; or
 - Any farming activity other than dairy farming to dairy farming; or
 - 3. Any farming activity to Commerical Vegetable Production 116

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 of an outline (Table of Contents) of the Farm Environment Plan, to relect the specific nature of a farm and achieve the Principles and Objectives of Sehdule 1.
- ii. The date a final audited Farm Environment Plan is to be provided to the Council.
- iii. 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.
- <u>iia.</u> 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. 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.
- 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.

¹¹¹ H G and S J Brooks PC1-86, Denzie, B PC1-3617

¹¹² Fonterra V1PC1-757, Waipā DC PC1-3249, Waitomo DC PC1-10312

¹¹³ Previously part of rule (condition a) with addition of Certified Sector Schemes.

¹¹⁴ Previously part of rule (condition d)

¹¹⁵ WRC V1PC1-218

¹¹⁶ Fonterra PC1-10644

- vii. 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.
- viii. The timeframe and circumstances under which the consent conditions may be reviewed or the Farm Environment Plan shall be amended.
- ix. Procedures for reviewing, auditing compliance with, amending and re-approving the Farm Environment Plan.
- x. <u>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</u>
- xi. Where the Nitrogen Reference Point exceeds the 50th percentile and is less than the 75th percentile nitrogen leaching value, demonstrate methods for clear and enduring reductions of nitrogen leaching, with anticipated reductions set, and practices to achieve those reductions and timeframes detailed.
- xii. The timeframe and circumstances under which the consent conditions may be reviewed, including the review of conditions requiring implementation of specific on-farm mitigation measures to ensure they reflect changes to Good Farming Practices that may occur over time.

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. 117

3.11.5.5 Controlled Restricted Discretionary Activity Rule – Existing commercial vegetable production/Te Ture mō ngā Mahi ka āta Whakahaerehia – Te whakatupu hua whenua ā-arumoni o te wā nei

Rule 3.11.5.5 - Controlled Restricted Discretionary Activity Rule – Existing commercial vegetable production

The use of land for commercial vegetable production and the associated diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens onto or into land in the circumstances which may result in those contaminants entering waterand the associated diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens onto or into land in circumstances which may result in those contaminants entering water, is a permitted activity until 1 January 2020, from which date it shall be a controlled restricted discretionary activity (requiring resource consent)—subject to the following conditions standards and terms:

- a. Each property to be registered with the Waikato Regional Council in conformance with Schedule A; and
- b. A Nitrogen Reference Point is produced for the property or enterprise in conformance with Schedule B and provided to the Waikato Regional Council at the time the resource consent application is lodged; and
- c. Cattle, horses, deer and pigs are excluded from water bodies in conformance with Schedule C; and
- d. The land use is registered to a Certified Industry Scheme; and
- e. The following information, relating to the land used by the applicant for commercial vegetable production each year in the period 1 July 2011 to 30 June 2016, is provided to the Council:
 - i. The total, maximum area (hectares) of land used for commercial vegetable production; and
 - <u>ii. The maximum areas (hectares) of land <mark>located within eachsub</mark>-catchment <mark>referred</mark> to in Table 3.11-2<mark>;</mark> and</u>
 - <u>iii.</u> quantification of nitrogen and phosphorus surpluses for each commercial vegetable production crop and a description of sediment control measures; and

The areas of land, and their locations broken down by sub-catchments [refer to Table 3.11-2], that were used for commercial vegetable production within the property or enterprise each year in the period 1 July 2006 to 30 June 2016, together with the maximum area of land used for commercial vegetable production within that period, shall be provided to the Council; and

- f. The total area of land for which consent is sought for commercial vegetable production must not exceed the maximum land area of the property or <u>properties</u> enterprise that was used for commercial vegetable production during the period 1 July 2006 2011 to 30 June 2016; and
- g. Where new land is proposed to be used for commercial vegetable production, an equivalent area of land must be removed from commercial vegetable production in order to comply with standard and term f.; and

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¹¹⁷ Forest and Bird PC1-8208

- h. A Farm Environment Plan for the property or enterprise prepared in conformance with Schedule 1 and approved by a Certified Farm Environment Planner is provided to the Waikato Regional Council at the time the resource consent application is lodged that, at a minimum, shows:
 - i. Good Farming Practice;
 - ii. Adherence to any relevant minimum standards; and
 - iii. That losses of nitrogen, phosphorus and sediment that do not exceed the maximum annual losses that were occurring during the 5 years up to 2016; and
- i. Full electronic access to Overseer or any other software or system that models or records diffuse contaminant losses for the farming land use authorised by this rule is granted to the Waikato Regional Council 118

<u>Waikato Regional Council restricts its discretion to the following matters:</u> <u>Matters of Control Waikato Regional Council reserves control over the following matters:</u>

- i. The content of the Farm Environment Plan.
- ii. The maximum total and per-sub-catchment area of land to be used for commercial vegetable production.
- iii. The actions and timeframes to achieve Good Farming Practices or better and any relevant minimum standards to avoid exceeding baseline losses identified under Condition h.iii. above. 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, <u>contaminant accounting</u> and information provision requirements for the holder of the resource consent to demonstrate and/or monitor compliance with <u>any resource consent and</u> the Farm Environment Plan.
- vii. The time frame and circumstances under which the consent conditions may be reviewed, including the review of conditions requiring implementation of specific on-farm mitigation measures to ensure they reflect changes to Good Farming Practices that may occur over time.
- viii. Procedures for reviewing, auditing compliance with, 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 2020.¹¹⁹

¹¹⁸ WRC V1PC1-218

¹¹⁹ 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

3.11.5.6 Restricted Discretionary Activity Rule – The use of land for farming activities/Te Ture mongā kowhiringa mahi e herea ana – te whakamahinga o te whenua mongā 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 Waipā 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

The use of land for farming and the associated diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens onto or into land in the circumstances which may result in those contaminants entering water that does not meet one or more of conditions (1) to (6) of Rule 3.11.5.4 is a Discretionary activity. 120

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 (6) of Rule 3.11.5.2A or condition (7) of Rule 3.11.5.4 is a non-complying activity until 10 years from the date on which this Plan became operative. 121

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

- 1. 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:

¹²⁰ Fonterra PC1-10506

¹²¹ Fonterra V1PC1-757, Waipā DC PC1-3249, Waitomo DC PC1-10312

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.] 122

¹²² Forest and Bird PC1-8214

Schedule A - Registration with Waikato Regional Council/Te Apitihanga A - Te rehita me te Kaunihera a-Rohe o Waikato

Properties with an area greater than 2 hectares 4.1 hectares 125 (excluding urban properties) must be registered with the Waikato Regional Council in the following manner:

- 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.
- 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.
- 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 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. 128
 - 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, <u>and no NRP is required under this Plan</u>, ¹²⁹ the <u>annual average and maximum</u> ¹³⁰ stocking rate of animals grazed on the land.
 - g. Where details of a property are not known, generic data will be supplied by the Waikato Regional Council reflective of farm time, topography and known or assumed management.
 - g. If the property forms part of an enterprise, the name of that enterprise. 131
- 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.

¹²⁵ WRC PC1-3536

¹²⁶ WRC PC1-3536

¹²⁷ WRC PC1-3536

¹²⁸ Waipā DC PC1-3225

¹²⁹ WRC V1PC1-216

¹³⁰ J Liefting PC1-7166

¹³¹ Waipā 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.
- b. The Nitrogen Reference Point shall be the highest <u>modelled</u> annual nitrogen leaching loss that occurred during a single year (being 12 consecutive months) within the reference period specified in clause f), except for commercial vegetable production in which case the Nitrogen Reference Point shall be the average annual nitrogen leaching loss during the reference period.
- c. The Nitrogen Reference Point must be calculated using the <u>current most recent</u> version of the OVERSEER® Model <u>as the default model</u> (<u>or any</u> other models <u>may be approved for use</u> by the Chief Executive of the Waikato Regional Council, <u>if justified on a case by case basis</u>). The Nitrogen Reference Point must be updated using the initial reference data <u>whenever a new version of the OVERSEER® Model</u>, <u>or any other approved model used to prepare the Nitrogen Reference Point</u>, is released.
- d. The Nitrogen Reference Point data shall comprise the <u>data used by electronic output file from</u> the OVERSEER® or other approved model to calculate the <u>Nitrogen Reference Point</u>, 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 <u>Schedule B Table 1 a</u> Waikato Regional Council Nitrogen Reference Point Guide. Where another approved model is used, it will conform to the data input standards as approved by the Chief Executive of the Waikato Regional Council.
- e. The Nitrogen Reference Point <u>Analysis (inputs and outputs)</u> and the Nitrogen Reference Point data must be provided published to Waikato Regional Council within the period <u>1 September 2018</u> 1 May 2020 to <u>31 March 2019</u> 30 November 2020.
- f. The Nitrogen Reference Period reference period is the two financial years covering 1 July 2014/2015 and 2015/ to 30 June 2016, except for commercial vegetable production in which case the reference period is 1 July 2006 2011 to 30 June 2016.
- g. Unless specified by condition of a resource consent, the NRP shall be uypdated:
 - i. Annually for properties with a NRP exceeding the FMU 75th percentile;
 - ii. Every 2 years for properties with a NRP exceeding the FMU 50th and less than the 75th percentile; and
 - iii. Every 5 years for properties with a NRP less than the FMU 50th percentile.

Where details of a property are not known, generic data will be supplied by the Waikato Regional Council reflective of farm time, topography and known or assumed management. Should such circumstances exist, following the first year after the generic data apparoach has been used, the NRP shall be recalculated and the resulting NRP provided to the Waikato Regional Council.

- 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 landRecords 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 <u>land property (area and yield), quantities of each crop consumed on the property, and</u> quantities sold off farm; and
 - vii. Horticulture crop diaries and NZGAP records; and
 - viii. The Nitrogen Reference Point Data as defined in Schedule B clause d; and
 - ix. Soil test data including anion storage capacity; and
 - x. A map which shows property boundaries, block management areas, retired/non-productive areas and areas used for effluent irrigation.

Advice note: Financial information does not need to be provided to the Waikato Regional Council.

Table 1: Data input methodology for ensuring consistency of Nitrogen Reference Point data using the OVERSEER®Model¹³²

¹³² Ballance PC1-6570, FANZ PC1-10642, Beef and Lamb PC1-11506, Fonterra PC1-10517

OVERSEER® Parameter	Setting that must be used	Explanatory note
Farm model	To cover the entire enterprise	To capture the "whole farm" in one
	including riparian, retired, forestry,	Overseer® file, where possible, to truly
Pastoral and horticulture	and yards and races.	represent nitrogen losses from farm in
	The model is to include non-	the catchment area.
	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.	
Location	Select Waikato Region	This setting has an effect on climate
		settings and some animal
Pastoral and horticulture		characteristics and is required to
		ensure consistency.
Animal distribution – relative	Use "no differences between blocks"	
productivity pastoral only	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	
NAC -11 - 1	areas to 0.75 (75%).	1 2046 OVEDSEED® D
Wetlands	Entered as Riparian Blocks	As per the 2016 OVERSEER® Best
Charles weeks a section	Baradan aras (fra et al. maraban araba	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	Accurate animal weights are difficult
Attimal Weights	enter in weights and use the age at	_
	start setting where available (national	to obtain and prove.
	averages).	
Block climate data	Only use the Climate Station tool	
biock climate data	For contiguous blocks use the	
	coordinates from the location of the	
	dairy shed or the middle of the farm	
	area (for non-dairy).	
	For non-contiguous blocks use	
	individual blocks' climate station	
	coordinates.	
Soil description	Use Soil Order – obtained from S Map	To ensure consistency between areas
Jon acsoription	or where S-Map is unavailable from	of the region that have S-Map data
	LRI 1:50,000 data or a soil map of the	and those that don't.
	farm.	and those that don't
Missing data	In the absence of Nitrogen	Some farms will not be able to supply
	Referencing information being	data, therefore a default must be
	provided the Waikato Regional	established.
	Council will use appropriate default	Cottabilistica.
	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).	
	Tome average values for those inputs.	<u> </u>

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

Except as provided by Exclusions I. and III. and IIII, cattle, horses, deer and pigs stock¹³³ must be excluded from the water bodies listed in <u>6. i. to iv.</u> below as follows:

1. The water bodies on land with a slope of up to X degrees¹³⁴ 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 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.

- New temporary, permanent or virtual¹³⁶ 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.¹³⁷
- 3. <u>Livestock Cattle, horses, deer and pigs</u>¹³⁸ must not be permitted to 139 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. 140

- 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. 141

Exclusions:

The following situations are excluded from clauses 1, 2 and 23:

- 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. 142
- 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.

¹³³ Dairy Goat Co-Operative (N.Z) Ltd PC1-4135

¹³⁴ Beef and Lamb PC1-11507

¹³⁵ Fish and Game PC1-11022

¹³⁶ Ashby, J L and R J V1PC1-879, Beef and Lamb V1PC1-1724

¹³⁷ Cl. 16 to ensure consistency with Rule 4.2.18.1 of the WRP

¹³⁸ Dairy Goat Co-Operative (N.Z) Ltd PC1-4135, A and S Dudin PC1-4910, A and M Goddard PC1-2341

¹³⁹ Fonterra V1PC1-757, Waipā DC PC1-3249, Waitomo DC PC1-10312

¹⁴⁰ Beef and Lamb PC1-11507

¹⁴¹ DoC PC1-11055

¹⁴² G Kilgour PC1-1923, A McGovern PC1-8327, Waipapa Farms Ltd and Carlyle Holdings Ltd PC1-4716

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

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

This schedule applies in part or full to all farming activities depending on the level of farm intensity (Medium or High as defined in Rules 3.11.5.2A and Rule 3.11.5.3 respectively – noting that Low intensity farms do not required FEP in accordance with Rule 3.11.5.2).

- **Medium Intensity Farm** FEPs are required to satisfy Part B 1, 2, 3 and 5. Low intensity farms identify the key mitigation considerations for each of these areas.
- Higher Intensity Farm FEPs are required to satisfy Part B 1, 2, 4 and 5, which benchmarks against GFP in each of the key GFP management areas.

The definition for farm intensity is primarily stocking rate based, being:

Medium intensity: have an annual average stocking rate of less than 18 SU per ha. Contaminants of greatest risk are sediment and phosphorus and are reflected in FEP requirements below.

High intensity: (with the greatest risk potentially focusing on nitrogen and pathogens) have an annual average stocking rate of greater than 18 SU per ha. Contaminants of greatest risk, are nitrogen and pathogens and are reflected in FEP requirements below.

{Note: While stocking rate has been used above to define medium vs high intensity farms (and as per the rule criteria) stocking rate can change over time. While it would be inconsistent with the rules, other classification systems could be used to define of high and medium intensity farms, such as slope (which is used in the NPS) or land use. These alternatives are not favoured due to either their fixed nature that does not reflect potential of changing farm practices and overtime, or the rapid change in effects based on a land use criteria}.

PART A - PROVISION OF FEP (all Farms)

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) <u>includes the following minimum components:</u>
 - 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 be developed in consultation with the farming industry and 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. <u>A map(s) or aerial photos</u> 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.

Medium Intensity Farm

- For medium intensity farms an assessment of whether farming practices are consistent with each of the following objectives, principles and targets, including;
 - a. A description of those farming practices that will continue to be undertaken in a manner consistent with the whole farm objectives and principles;
 - b. A description of those farming practices that are not consistent with the objectives or principles; and
 - c. Where appropriate a description of the timing and actions to meet the relevant objectives, principles and/or targets.

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 and phosphorus, and to a lesser extent microbial pathogens and nitrogen.
- 2. Maintain accurate and auditable records of annual farm inputs, outputs and management practices.
- 3. <u>Manage farming operations to minimise losses of sediment, microbial pathogens, phosphorus and nitrogen to water, and maintain or enhance soil structure.</u>
- 4. Appropriately manage all Land Use Capability Class 7 and Class 8 areas to ensure appropriate soil conservation measures are in place.

Targets:

- 1. High risk areas identified.
- 2. Accurate farm records are kept of annual farm inputs, outputs and management practices.
- 3. Management practices are in place to minimise losses of sediment and phosphorus, and maintain or enhance soil structure.
- 4. Actions that can minimize losses of microbial pathogens and nitrogen to water have been identified.
- 5. Prepare and apply a land use and grazing management policy for specific areas on the farm in order to maintain and improve the physical and biological condition of soils appropriate for the vegetation cover used.

High Intensity Farm

- 1. For high intensity farms an assessment of the risk associated with the farming activities on the property with respect to key GFP Management Areas, 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 how each of the objectives, principles and targets for the GFP Management Area, where relevant to that property, will be met and the specific actions that will be implemented to attain the targets;
 - b. provide a timeframe within which actions identified for each GFP Management Area to achieve the objectives and targets will be completed and to what standard they will be completed; and
 - c. description of the records required to be kept for measuring performance and attainment of the targets and objectives. Detail should be commensurate with the scale of the environmental effects and risks and be suitable for audit.

GFP Management Areas are:

- A. Whole Farm
- **B.Nutrient management**
- C. Waterways (riparian areas, drains, rivers, lakes, wetlands)
- D. Land and Soil
- E. Collected Animal Effluent
- F. Water and Irrigation
- G. Mahinga Kai

4a - Management area: Whole farm

Objective 1

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

Principles

- Identify the characteristics of the farm system, the risks that the farm system poses (point and diffuse sources) to
 water quality, and the GFPs that minimise the losses of particularly nitrogen and microbial pathogens, but also
 phosphorus and sediment.
- 2. Manage farming operations to minimise losses of nitrogen, microbial pathogens, phosphorus and sediment to water, while maintaining or enhancing soil structure.
- 3. Maintain accurate and auditable records of annual farm inputs, outputs and management practices.

Targets:

- 1. High risk areas are identified for particularly nitrogen and microbial pathogens, but also phosphorus and sediment.
- 2. Management practices are in place to minimise losses of nitrogen and microbial pathogens, but also phosphorus and sediment.
- 3. Accurate farm records are kept of annual farm inputs, outputs and management practices.

4b - Management Area: Nutrient management

Objective 2

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

Principles

- 1. Monitor soil phosphorus levels and maintain them at or below the agronomic optimum for the farm system.
- 2. 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.
- 3. Store and load fertiliser to minimise risk of spillage, leaching and loss into waterbodies.
- 4. <u>Ensure equipment for spreading fertilisers is well maintained and calibrated.</u>
- 5. Store, transport and distribute feed to minimise wastage, leachate and soil damage.

Targets:

- 1. Representative whole farm soil testing is undertaken at a minimum every 3 years.
- 2. A nutrient budget is prepared and available nitrogen loss mitigation measures are implemented.
- 3. All fertiliser recommendations are prepared by an appropriately qualified person.
- 4. A fertiliser plan is prepared and used relating to the form of fertiliser applied, rate of application, placement of fertiliser and timing of application of fertiliser inputs to match the predicted plant requirements and minimise nutrient losses.
- 5. For cultivated crops, adopt the use of improved fertiliser products which have proved effective and available, such as formulated prills, coatings and slow release formulations.
- 6. Keep documentation for proof of fertiliser placement according to recommended instruction.

Objective 3

To farm in accordance with the nitrogen management requirements of PC1

Principle

Either, where the property's NRP is ≤75th percentile:

1. 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

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

Targets:

- 1. Nitrogen losses from farming activities are at or below the:
 - a. five-year rolling average annual nitrogen loss does not increase beyond the property or enterprise's NRP, and
 - b. consented nitrogen loss limits.
- 2. Where farms have a NRP > than the 75th percentile, actions, timeframes and other measures to ensure the diffuse discharge of nitrogen is reduced so that it does not exceed the 75th percentile NRP by [1 July 2026], except in the case of Rule 3.11.5.5.

4c – Management Area: Waterways (riparian areas, drains, rivers, lakes, wetlands)

Objective 4

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

Principles

- 1. <u>Identify risk of overland flow of phosphorus, sediment and microbial pathogens on the property and implement</u> measures to minimise losses of these to waterbodies.
- 2. <u>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.</u>
- 3. Wetlands, riparian areas and the margins of surface waterbodies are managed to avoid damage to the bed and margins of the water body, and to avoid the direct input of nutrients, sediment, and microbial pathogens; and
- 4. Riparian margin settling and filtering areas will be provided for that consider the minimum continuous width that reflects the adjacent land slope and the flow/level of the water body.

Targets:

- 1. The farm map identifies the slope of land adjacent to waterbodies.
- 2. Setbacks and vegetated riparian margins of the specified width are maintained to minimise nutrient, sediment and microbial pathogen losses to waterbodies reflective of the surrounding slope. Particularly, where practicable the provision of minimum grazing setbacks from water bodies for stock exclusion should be used, including;
 - a. 1 metre for land with a slope of less than 15°; and
 - b. 3 metres for land with a slope between 15° and 25°.
- 3. Farm tracks, races, livestock crossings, gateways, water troughs, self-feeding areas, stock camps, wallows and other farming activities that are potential sources of sediment, nutrient and microbial pathogen loss are located on the farm map and evidence of management is provided that demonstrates practices to minimise the risks to surface water quality and that appropriate measures to minimise these discharges from these areas (e.g. cut-off drains, and shaping) are implemented.
- 4. An assessment is completed 3 yearly, and incorporated into the FEP, to identify opportunities to minimise losses to riparian 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).

Objective 5

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

<u>Principles</u>

- 1. Exclude stock from waterbodies to the extent that it is compatible with landform, stock class and stock intensity.

 Where exclusion is not possible, mitigate impacts on waterways.
- 2. Exclude stock in a manner consistent with the requirements of schedule C.

Targets:

- Records show stock are excluded from waterbodies in accordance with Schedule C, regional council rules or any granted resource consent.
- 2. Fencing and livestock crossing structures to achieve compliance with Schedule C are provided, and for areas with a slope exceeding 250 and where stream fencing is impracticable, alternative mitigation are measures are provided.

4d - Management Area: Land and soil

Objective 6

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

Principles

- 1. Manage periods of exposed soil between crops/pasture to reduce risk of erosion, overland flow and leaching.
- 2. Manage or retire erosion-prone land to minimise soil losses through appropriate measures and practices.
- 3. <u>Select appropriate paddocks for growing crops and intensive grazing, recognising and mitigating possible nitrogen and phosphorus, faecal, and sediment loss from critical source areas, by the identification of actively eroding areas, erosion prone areas, and areas of bare soil and applying appropriate measures for erosion and sediment control and re-vegetation.</u>
- 4. Manage grazing and crops to minimise losses from critical source areas.
- 5. Appropriately manage all Land Use Capability Class 8 and all Class 7 to ensure intensive soil conservation measures are in place.
- 6. The physical and biological condition of soils is maintained or improved in order to minimise the movement of sediment, phosphorus and other contaminants to waterways.

Targets:

- 1. Records show farming activities are managed so to minimize erosion;
- 2. Records show the extent that farming practices have been implemented that optimise infiltration of water into the soil profile and minimise run-off of sediment loss;

- 3. A plan has been developed that provides for, and the maintenance of, appropriate buffers between cultivated areas and water bodies (minimum 2 m setback);
- 4. Records show that where overland flows enters and exits the paddock in rainfall events, appropriate measures to divert overland flows from entering any cultivated paddock has been implemente;
- 5. Measures to trap sediment leaving cultivated paddocks in overland flows are in place;
- 6. The farm map identifies slopes over 150 and records are available that show how cultivation on them will be avoided; unless contaminant discharges to water bodies from that cultivation can be avoided;
- 7. Records show that for cultivation on slopes of less than 15° that appropriate erosion and sediment controls for each paddock that will be cultivated have been implemented;
- 8. Prepare and apply a land use and grazing management policy for specific areas on the farm in order to maintain and improve the physical and biological condition of soils appropriate for pasture cover on all land types; and
- For vegetable growers, at a block level minimum scale, prepare and have an erosion and sediment control plan developed in accordance with the Erosion and Sediment Control Guidelines for Vegetable Production June 2014.

4e - Management Area: Collected Animal Effluent

Objective 7

To minimise contaminant losses to waterways from farm animal effluent and to manage the risks associated with the operation of effluent systems to ensure they are compliant 365 days of the year.

Principles

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

Targets:

- 1. Records show effluent systems meet industry Codes of Practice or an equivalent standard;
- 2. Records show effluent systems are regularly maintained and calibrated;
- 3. Records show the timing and rate of application of effluent and solid animal waste to land is managed so as to minimise the risk of contamination of groundwater or surface water bodies;
- 4. Sufficient and suitable storage is available to enable animal effluent and wash-down water to be stored when soil conditions are unsuitable for application; and
- 5. Staff are trained in the operation, maintenance and use of effluent storage and application systems.

4f – 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

- Manage the amount and timing of irrigation inputs to meet plant demands and minimise risk of leaching and run off.
- 2. Contaminant loss arising from the irrigation system to groundwater or surface water will be minimised.
- 3. <u>Design, check and operate irrigation systems to minimise the amount of water needed to meet production objectives.</u>

Targets:

- 1. Records show actual water use is efficient for the intended use;
- 2. New irrigation systems are designed and installed in accordance with industry Codes of Practices and standards;
- 3. Records show the performance of irrigation systems are assessed annually and irrigation systems are maintained and operated to apply irrigation water at their optimal efficiency;
- The timing and depth of irrigation water applied takes account of crop requirements and is justified through soil moisture monitoring or soil water budgets and climatic information; and
- 5. Staff are trained in the operation, maintenance and use of irrigation systems.

<mark>4g – Management Area:</mark> Mahinga kai

Objective 9

To protect and with time enhance mahinga kai values.

Principles:

1. Mahinga kai values of surface waterbodies on the property are recognised by achieving other objectives, principles and targets in the FEP.

Target:

- Maintaining existing indigenous vegetation in accordance with relevant regional council and district council vegetation clearance rules or any granted resource consent;
- Identify opportunities to undertake additional plantings of indigenous vegetation, carry out and managing any additional plantings in accordance with regional council guidelines for riparian planting;
- 3. Undertaking farming activities in a manner that minimises adverse effects on existing indigenous vegetation and on any additional plantings of indigenous riparian vegetation; and
- 4. Managing pest plants in accordance with regional council rules.
- 4. The FEP shall include for each objective, principle and target in section 3 and 4 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, or its outline required at the time of application, 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 3.11.5.2A, 3.11.5.3 3.11.5.5 of PC1; and
- 2. Prior to the submission date of a final FEP as required by consent conditions; and
- 3. <u>In accordance with the review intervals set out in the conditions of that resource consent.</u>

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

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

Should a FEP be prepared by a CPEP, then any review and approval of the FEP is to be undertaken by a different CFEP to whom prepared the FEP.

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 for High Intensity Farms and upon request by the Waikato Regional Council for Medium Intensity Farms.

PART D - FEP CHANGES

<u>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:</u>

- 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 250 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 143 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:

¹⁴³ 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
		• timing of application 144

¹⁴⁴ 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 Apitihanga 2 - Te whakamana i nga tohu o nga Kaupapa Ahumahi

The purpose of this schedule is to set out the <u>minimum standards for Certified Sector Schemes</u>. 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;
- 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. 145

¹⁴⁵ 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 <u>freshwater objectives</u> and long term numerical water quality <u>states¹⁴⁶ targets</u> for the Waikato and Waipā River catchments/Ngā whāinga ā-tau taupoto, tauroa hoki mō te kounga wai i te riu o ngā awa o Waikato me Waipā

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

Map 3.11-1: Map of the Waikato and Waipa River catchments, showing Freshwater Management Units

Map 3.11-2: Map of the Waikato and Waipa River catchments, showing sub-catchments

Table 3.11-1: Short term <u>freshwater objectives</u> and long term numerical water quality <u>states</u> targets for the Waikato and Waipā 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 Waipā River catchments, these freshwater objectives and 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 freshwater objectives and the water quality states 147, 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 <u>maintained or</u> achieved by actions taken in the short term and at <u>over</u> 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 <u>freshwater objectives</u> and 80-year <u>water quality states</u> 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 <u>water quality states values</u> 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 freshwater objectives and 80-year 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 <u>water quality state</u> target is <u>set at</u> 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 <u>water quality state</u> target 148.

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)

¹⁴⁶ GBC Winstone PC1-3627

¹⁴⁷ GBC Winstone PC1-3627

¹⁴⁸ All recommended amendments to the Explanatory Note: GBC Winstone PC1-3627

<u>Table 3.11-1¹⁴⁹:</u> Upper Waikato River Freshwater Management Unit.

						T		Γ		Γ		T		Attr	ibutes					1				Γ		Γ	
Catchment number ¹⁵⁰		Ann Med Chloro (mg,	dian phyll <i>a</i>	Ann Maxii Chloroj (mg/	mum phyll <i>a</i>	Total N	Median litrogen /m³)	Annual To Phosp (mg,	tal horus	Annual Niti (mg NO	rate	Perc Nit	nal 95 th entile crate O ₃ -N/L)	Amn	Median nonia <u>1</u> H ₄ -N/L)	Ann Maxii Amm (mg NH	mum onia <u>¹</u>	E.	dian coli 100mL)		rcentile coli 00mL)	<mark>>540/</mark>	. coli 100 mL amples)	% <i>E.</i> >260/3 (% of sa	<mark>100 mL</mark>	>1. (%	arity 0 m 6 of ements)
	Site	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	Short term	80 year	Short term	80 <mark>year</mark>	Short term	80 year
<u>73</u>	Waikato River Ohaaki Br	1.5	1.5	13	13	134	134	10	10	0.039	0.039	0.076	0.076	0.002	0.002	0.013	0.013	14	14	80	80	0	0	Ō	0	100	100
	Waikato River at Tahorakuri	3.8	3.8	No Degr	adation	<mark>290</mark>	<mark>290</mark>	22	20	No Degr	radation	No Deg	radation	No Deg	radation	No Degr	adation	No Deg	radation	No Degr	radation	No Deg	radation	No Degi	radation	98	98
<u>66</u>	Waikato River Ohakuri Tailrace Br	3.1	<mark>3.1</mark>	11	11	<mark>216</mark>	<mark>216</mark>	17	17	0.086	0.086	0.177	0.177	0.003	0.003	0.017	0.017	2	2	16	<mark>16</mark>	0	0	O	0	95	<mark>95</mark>
<u>67</u>	Waikato River Whakamaru Tailrace	NA ³	5.0	NA ³	25	<mark>271</mark>	<mark>271</mark>	20	20	0.101	0.101	0.251	0.251	0.003	0.003	0.010	0.010	8	8	60	60	0	0	2	2	<mark>95</mark>	<mark>95</mark>
<u>64</u>	Waikato River Waipapa Tailrace	4.1	4.1	25	25	<mark>332</mark>	300	25	<mark>25</mark>	0.164	0.164	0.320	0.320	0.007	0.007	0.016	0.016	8	8	140	<mark>140</mark>	0	0	2	2	<mark>85</mark>	90
	<u>Waikato River at</u> <u>Karapiro</u>	5.3	<mark>5.0</mark>	<mark>16</mark>	<mark>16</mark>	392	300	<mark>27</mark>	<mark>25</mark>	No Degr	radation	No Deg	radation	No Deg	radation	No Degr	adation	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA³	NA³
<u>74</u>	Pueto Stm Broadlands Rd Br	NA ³	NA³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	0.450	0.450	0.536	0.536	0.003	0.003	0.009	0.009	<mark>21</mark>	<mark>21</mark>	92	92	0	0	0	0	No Deg	radation
<u>72</u>	Torepatutahi Stm Vaile Rd Br	NA ³	NA ³	NA³	NA³	NA ³	NA ³	NA ³	NA ³	0.500	0.500	0.825	0.825	0.002	0.002	0.011	0.011	<mark>54</mark>	54	<mark>215</mark>	<mark>215</mark>	0	0	4	4	28	50
<u>65</u>	Waiotapu Stm Homestead Rd Br	NA ³	NA³	NA ³	NA³	NA ³	NA ³	NA ³	NA ³	1.285	1.285	1.665	1.665	0.121	0.121	0.190	0.190	<mark>110</mark>	110	280	<mark>280</mark>	0	0	9	9	74	90
<u>69</u>	Mangakara Stm (Reporoa) SH5	NA ³	NA³	NA ³	NA³	NA ³	NA ³	NA ³	NA ³	1.300	1.300	1.675	1.675	0.008	0.008	0.063	0.063	139	130	1584	540	12	<mark>5</mark>	<mark>25</mark>	<mark>20</mark>	81	90
<u>62</u>	Kawaunui Stm SH5 Br	NA ³	NA³	NA ³	NA³	NA ³	NA ³	NA ³	NA ³	2.580	2.400	3.100	3.100	0.006	0.006	0.083	0.083	193	130	2335	540	17	<mark>5</mark>	32	<mark>20</mark>	63	70
<u>58</u>	Waiotapu Stm Campbell Rd Br	NA ³	NA³	NA ³	NA³	NA ³	NA ³	NA ³	NA ³	0.915	0.915	1.135	1.135	0.295	0.240	0.349	0.349	2	2	18	18	0	0	0	0	No Deg	radation
<u>59</u>	Otamakokore Stm Hossack Rd	NA ³	NA³	NA ³	NA³	NA ³	NA ³	NA ³	NA ³	0.740	0.740	1.360	1.360	0.006	0.006	0.025	0.025	<mark>211</mark>	130	680	540	8	5	30	20	100	100
<u>56</u>	Whirinaki Stm Corbett Rd	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	0.770	0.770	0.885	0.885	0.002	0.002	0.013	0.013	<mark>16</mark>	<mark>16</mark>	98	98	0	0	0	0	98	98

¹⁴⁹ Waikato Regional Council PC1-3635 ¹⁵⁰ Wairakei Pastoral Ltd PC1-11391

<u>54</u>	Tahunaatara Stm Ohakuri Rd	NA ³	NA³	NA ³	0.555	0.555	0.845	0.845	0.003	0.003	0.015	0.015	110	110	783	540	10	<mark>5</mark>	13	<mark>13</mark>	95	95						
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<u>Table 3.11-1:</u> Upper Waikato River Freshwater Management Unit (Continued)

														Attribu	utes												
Catchment		Ann Med Chloro (mg/	lian ohyll <i>a</i>	Ann Maxii Chloroj (mg/	mum phyll <i>a</i>	Total N	Median litrogen /m³)	To Phos	l Median otal phorus g/m³)	Ni	l Median trate IO₃-N/L)	Annua Perce Nitr (mg NC	entile rate	Amm	Median nonia <u>1</u> H ₄ -N/L)	Max Amn	nual imum nonia <u>1</u> H ₄ -N/L)	Med E. d (cfu/1	oli .	E. (rcentile coli !00mL)		. <i>coli</i> 100 mL amples)	% <i>E.</i> >260/1 (% of sa	100 mL	>1. (%	larity .0 m 6 of rements)
<u>number</u>	Site	Short term	80 vear	Short term	80 year	Short term	80 year	Short term	80 year	Short term	80 vear	Short term	80 year	Short term	80 vear	Short term	80 year	Short term	80 vear	Short term	80 year	Short term	80 vear	Short term	80 year	Short term	80 vear
<u>57</u>	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	0.795	0.795	0.003	0.003	0.015	0.015	<mark>166</mark>	130	684	540	10	5	25	20	52	70
<u>70</u>	Waipapa Stm (Mokai) Tirohanga Rd Br	NA ³	NA ³	NA³	NA ³	NA ³	NA ³	NA ³	NA ³	1.210	1.210	1.555	1.555	0.003	0.003	0.005	0.005	100	100	1147	540	5	5	10	10	<mark>57</mark>	70
<u>71</u>	Mangakino Stm Sandel Rd	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	0.650	0.650	0.875	0.875	0.003	0.003	0.012	0.012	40	40	250	250	0	0	4	4	<mark>79</mark>	90
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	0.461	0.461	0.003	0.003	0.033	0.033	<mark>445</mark>	130	2106	540	38	5	80	20	14	<mark>50</mark>
48	Mangamingi Stm Paraonui Rd Br	NA ³	NA ³	NA³	NA ³	NA ³	NA ³	NA ³	NA³	2.760	2.400	3.400	3.400	0.098	0.098	0.323	0.323	535	130	2151	540	<mark>46</mark>	5	<mark>73</mark>	20	32	50
<u>45</u>	Pokaiwhenua Stm Arapuni - Putaruru Rd	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	1.755	<mark>1.755</mark>	2.200	2.200	0.002	0.002	0.020	0.020	148	130	1363	540	12	5	23	20	<mark>65</mark>	<mark>70</mark>
44	Little Waipa Stm Arapuni - Putaruru Rd	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	1.580	1.580	2.150	2.150	0.002	0.002	0.089	0.089	110	110	1377	540	8	5	21	20	<mark>77</mark>	90

 $[\]underline{^1}$ The annual median and annual maximum ammonia have been adjusted for \underline{pH}

² This Attribute is expressed as a minimum requirement. To meet the Objective, the % of water clarity measurements exceeding 1.0m must be equal to or greater than the numerical value in Table 3.11-1.

³ Attribute is not applicable to the sub-catchment

<u>Table 3.11-1:</u> Middle Waikato River Freshwater Management Unit.

														Attrib	utes												
		Ann Med Chlorop (mg/	lian ohyll <i>a</i>	Ann Maxii Chloro (mg,	mum phyll <i>a</i>	Total N	Median litrogen /m³)	To Phos	l Median otal phorus g/m³)	Annual Nit (mg N0	rate	Annua Perce Nitr (mg NO	ntile ate	Amn	l Median nonia <u>1</u> IH ₄ -N/L)	Ann Maxir Amm (mg NH	mum onia <u>¹</u>	Med E. d (cfu/1	oli .	95 th pe <i>E. (</i> (cfu/1	coli	>540/	. <i>coli</i> 100 mL amples)	% <i>E.</i> >260/1 (% of sa	<mark>100 mL</mark>	>1. (%	larity .0 m 6 of rements)
<u>Catchment</u> <u>number</u>	Site	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	Short term	80 year	Short term	80 year	Short term	80 year
33	Waikato River Narrows Boat Ramp	5.5	5.0	23	23	410	<mark>410</mark>	28	<mark>25</mark>	0.235	0.235	0.545	0.545	0.010	0.010	0.018	0.018	39	39	265	265	2	2	5	<mark>5</mark>	88	90
25	Waikato River Horotiu Br	6.1	5.0	23	23	441	<mark>441</mark>	<mark>35.5</mark>	<mark>31</mark>	0.260	0.260	0.550	0.550	0.007	0.007	0.029	0.029	90	<mark>90</mark>	639	540	<mark>5</mark>	<mark>5</mark>	10	10	<mark>75</mark>	90
32	Karapiro Stm Hickey Rd Bridge	NA ³	NA ³	NA ³	NA³	NA ³	NA ³	NA ³	NA ³	0.520	0.520	1.760	1.760	0.008	0.008	0.031	0.031	279	130	4518	540	24	5	50	20	<mark>42</mark>	<u>50</u>
35	Mangawhero Stm Cambridge- Ohaupo Rd	NA ³	NA ³	NA ³	NA³	NA ³	NA ³	NA ³	NA ³	2.100	2.100	2.720	2.720	0.042	0.042	0.074	0.074	544	130	2920	540	46	5	82	20	<u>5</u>	50
29	Mangaonua Stm Hoeka Rd	NA ³	NA ³	NA ³	NA³	NA ³	NA ³	NA ³	NA ³	1.505	1.505	2.100	2.100	0.037	0.037	0.051	0.051	<mark>1363</mark>	130	6372	540	<mark>79</mark>	<mark>5</mark>	<mark>89</mark>	<mark>20</mark>	<mark>39</mark>	<mark>50</mark>
31	Mangaone Stm Annebrooke Rd Br	NA ³	NA ³	NA ³	NA³	NA ³	NA ³	NA ³	NA ³	2.580	2.400	3.200	3.200	0.009	0.009	0.020	0.020	<mark>733</mark>	130	2052	540	<mark>64</mark>	5	<mark>85</mark>	20	40	50
30	Mangakotukutuku Stm Peacockes Rd	NA ³	NA ³	NA ³	NA³	NA ³	NA ³	NA ³	NA ³	0.800	0.800	2.350	2.350	0.082	0.082	0.141	0.141	<mark>463</mark>	130	11777	540	42	5	88	<mark>20</mark>	<mark>5</mark>	50
28	Waitawhiriwhiri Stm Edgecumbe Street	NA ³	NA ³	NA ³	NA³	NA ³	NA ³	NA ³	NA ³	0.880	0.880	1.265	1.265	0.256	0.240	0.346	0.346	558	130	5922	540	50	5	80	20	<u>5</u>	50
23	Kirikiriroa Stm Tauhara Dr	NA ³	NA ³	NA ³	NA³	NA ³	NA ³	NA ³	NA ³	0.815	0.815	1.975	1.975	0.104	0.104	0.198	0.198	526	130	3312	540	48	5	80	20	5	50

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

² This Attribute is expressed as a minimum requirement. To meet the Objective, the % of water clarity measurements exceeding 1.0m must be equal to or greater than the numerical value in Table 3.11-1.

³ Attribute is not applicable to the sub-catchment

Table 3.11-1: Lower Waikato River Freshwater Management Unit

														Attrib	utes												
Catalanant		Ann Med Chloroj (mg/	lian ohyll <i>a</i>	Anr Maxi Chloro (mg,	mum phyll <i>a</i>	Total N	Median litrogen :/m³)	To Phos	Median otal phorus g/m³)	Nit	Median crate O ₃ -N/L)	Annua Perce Nitr (mg NC	entile ate	Amr	l Median nonia H ₄ -N/L)		mum nonia		dian coli 100mL)	95 th per <i>E. c</i> (cfu/1	coli	<mark>>540/</mark>	. <i>coli</i> 100 mL amples)	% <i>E.</i> >260/1 (% of sa	<mark>100 mL</mark>	>1 (%	larity .0 m 6 of rements)
<u>Catchment</u> <u>number</u>	Site	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	Short term	80 year	Short term	<mark>80</mark> year	Short term	80 year
20	Waikato River Huntly-Tainui Br	5.9	5.0	19	19	<mark>577</mark>	<mark>500</mark>	<mark>44</mark>	<mark>31</mark>	0.365	0.365	1.010	1.010	0.005	0.005	0.015	0.015	<mark>125</mark>	125	1854	540	12	5	26	20	<mark>34</mark>	<mark>50</mark>
9	Waikato River Mercer Br	10.0	5.0	30	25	<mark>646</mark>	500	<mark>51</mark>	<mark>38</mark>	0.365	0.365	0.895	0.895	0.003	0.003	0.011	0.011	80	80	1449	540	11	5	20	20	No Deg	gradation
4	Waikato River Tuakau Br	11.3	5.0	37	25	<mark>586</mark>	<mark>500</mark>	<mark>51</mark>	<mark>38</mark>	0.325	0.325	0.890	0.890	0.003	0.003	0.008	0.008	80	80	1494	540	11	5	18	18	10	<mark>50</mark>
22	Komakorau Stm Henry Rd	NA ³	NA³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	1.310	1.310	5.120	3.500	0.250	0.240	0.419	0.400	1003	130	3474	540	<mark>77</mark>	5	85	20	5	50
17	Mangawara Stm Rutherford Rd Br	NA ³	NA³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	0.765	0.765	3.350	3.350	0.111	0.111	0.185	0.185	<mark>913</mark>	130	4955	540	64	5	84	20	5	50
19	Awaroa Stm (Rotowaro) Sansons Br	NA ³	NA³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	0.700	0.700	1.390	1.390	0.024	0.024	0.093	0.093	<mark>274</mark>	130	1800	540	17	5	58	20	<mark>37</mark>	<mark>50</mark>
14	Matahuru Stm Waiterimu Road	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	0.715	0.715	1.905	1.905	0.017	0.017	0.060	0.060	<mark>553</mark>	130	6147	540	59	5	80	20	5	50
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	0.795	0.795	0.008	0.008	0.143	0.143	<mark>211</mark>	130	583	540	9	5	41	20	<u>5</u>	<mark>50</mark>

Table 3.11-1: Lower Waikato River Freshwater Management Unit

														Attril	outes												
		Ann Med Chloroj (mg/	lian ohyll <i>a</i>	Ann Maxir Chlorop (mg/	num ohyll <i>a</i>	Total N	Median litrogen /m³)	To Phosp	Median tal bhorus /m³)	Nit	Median rate O ₃ -N/L)	Perc Nit	al 95 th entile rate O ₃ -N/L)	Amr	Median nonia H ₄ -N/L)	1		Med E. d (cfu/1	oli .	95 th per <i>E. c</i> (cfu/1	coli	<mark>>540/</mark>	. coli 100 mL amples)	<mark>% E. >260/3</mark> (% of sa	<mark>100 mL</mark>	% Cl. >1. (% measur	of
<u>Catchment</u> <u>number</u>	Site	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	Short term	80 year	Short term	80 year	Short term	80 year
12	Waerenga Stm Maramarua Taniwha Rd ¹⁵¹	NA ³	NA³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	0.820	0.820	1.420	1.420	0.005	0.005	0.023	0.023	463	130	5098	540	35	5	<mark>76</mark>	20	28	5 0
<u>8</u>	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	2.500	2.500	0.011	0.011	0.055	0.055	553	130	4712	540	<mark>52</mark>	5	80	20	10	<mark>50</mark>
<u>2</u>	Mangatangi River SH2 Maramarua	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	0.110	0.110	1.290	1.290	0.006	0.006	0.038	0.038	355	130	5567	540	28	5	77	20	12	50
1	Mangatawhiri River Lyons Rd Buckingham Br	NA ³	NA ³	NA ³	NA³	NA ³	NA ³	NA ³	NA ³	0.013	0.013	0.400	0.400	0.003	0.003	0.011	0.011	<mark>184</mark>	130	5108	540	12	5	<mark>29</mark>	20	<mark>75</mark>	90
10	Whangamarino River Island Block Rd	NA ³	NA³	NA ³	NA³	NA ³	NA ³	NA ³	NA ³	0.075	0.075	0.865	0.865	0.013	0.013	0.158	0.158	<mark>175</mark>	130	<mark>654</mark>	540	16	5	37	20	<u>5</u>	50
<u>3</u>	Whakapipi Stm SH22 Br	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	3.390	2.400	<u>5.165</u>	3.500	0.006	0.006	0.084	0.084	301	130	1773	540	32	5	<mark>69</mark>	20	<mark>59</mark>	<mark>70</mark>
7	Ohaeroa Stm SH22 Br	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	1.525	1.525	1.915	1.915	0.003	0.003	0.015	0.015	<mark>283</mark>	<mark>130</mark>	4667	540	28	5	49	20	36	50
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	1.081	1.081	0.005	0.005	0.016	0.016	<mark>364</mark>	130	2898	540	31	5	<mark>63</mark>	20	11	50
5	Awaroa River (Waiuku) Otaua Rd Br Moseley	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	1.410	1.410	2.500	2.500	0.022	0.022	0.144	0.144	<mark>229</mark>	130	1017	540	16	5	41	20	8	50

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

² This Attribute is expressed as a minimum requirement. To meet the Objective, the % of water clarity measurements exceeding 1.0m must be equal to or greater than the numerical value in Table 3.11-1.

³ Attribute is not applicable to the sub-catchment

¹⁵¹ Waikato Regional Council PC1-3635

Table 3.11-1: Waipa River Freshwater Management Unit

														Attr	ibutes												
Catalanant		Ann Med Chloro (mg/	<mark>lian</mark> phyll <i>a</i>	Anr Maxi Chloro (mg,	<mark>mum</mark> phyll <i>a</i>	Total N	Median litrogen :/m³)	Annual To Phosp (mg	tal	Nit	Median trate O ₃ -N/L)	Annua Perce Nitr (mg NC	ntile ate	Amı	l Median nonia <u>1</u> IH ₄ -N/L)	Anr Maxi Amm (mg NF	mum ionia <u>¹</u>	Med E. ((cfu/1	<mark>coli</mark>		rcentile coli .00mL)	<mark>>540/</mark>	. coli 100 mL amples)	% E. >260/3 (% of sa	<mark>100 mL</mark>	>1. (%	arity 0 m 6 of ements)
<u>Catchment</u> <u>number</u>	Site	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	Short term	80 year	Short term	80 year	Short term	<mark>80</mark> year
68	Waipa River Mangaokewa Rd	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	0.380	0.380	0.710	0.710	0.003	0.003	0.017	0.017	<mark>202</mark>	130	2417	540	20	<mark>5</mark>	<mark>34</mark>	20	<mark>76</mark>	<mark>90</mark>
60	Waipa River Otewa	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	0.228	0.228	0.504	0.504	0.003	0.003	0.008	0.008	<mark>225</mark>	130	2037	540	20	5	41	20	<mark>68</mark>	<mark>70</mark>
51	Waipa River SH3 Otorohanga	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	0.370	0.370	1.150	1.150	0.004	0.004	0.020	0.020	175	130	3289	540	17	5	34	20	<mark>58</mark>	<mark>70</mark>
43	Waipa River Pirongia-Ngutunui Rd Br	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	0.565	0.565	1.532	1.500	0.008	0.008	0.023	0.023	283	130	4441	540	33	5	<mark>52</mark>	20	23	50
34	Waipa River Whatawhata Bridge	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	0.673	0.673	1.578	1.500	0.009	0.009	0.026	0.026	<mark>366</mark>	130	3657	540	35	5	<mark>53</mark>	20	11	<mark>50</mark>
26	Ohote Stm Whatawhata/Horo tiu Rd	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	0.495	0.495	1.385	1.385	0.023	0.023	0.052	0.052	<mark>261</mark>	130	2142	540	<mark>15</mark>	5	47	20	10	<mark>50</mark>
36	Kaniwhaniwha Stm Wright Rd	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	0.350	0.350	0.995	0.995	0.007	0.007	0.022	0.022	<mark>238</mark>	<mark>130</mark>	1917	540	<mark>24</mark>	5	41	20	38	<mark>50</mark>
38	Mangapiko Bowman Rd Stm	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	1.410	1.410	2.650	2.650	0.022	0.022	0.078	0.078	306	<mark>130</mark>	7074	540	<mark>25</mark>	<mark>5</mark>	<mark>55</mark>	20	<mark>19</mark>	<mark>50</mark>
39	Mangaohoi Stm South Branch Maru Rd	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	0.230	0.230	0.415	0.415	0.003	0.003	0.008	0.008	<mark>70</mark>	<mark>70</mark>	942	540	8	<u>5</u>	18	18	<mark>87</mark>	<mark>90</mark>
37	Mangauika Stm Te Awamutu Borough W/S Intake	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	0.210	0.210	0.286	0.286	0.002	0.002	0.003	0.003	<mark>33</mark>	33	1008	540	8	5	13	13	98	<mark>98</mark>
40	Puniu River Bartons Corner Rd Br	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	0.650	0.650	1.305	1.305	0.007	0.007	0.029	0.029	139	130	2790	540	21	5	26	20	39	<mark>50</mark>
47	Mangatutu Stm Walker Rd Br	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	0.380	0.380	0.908	0.908	0.003	0.003	0.012	0.012	<mark>157</mark>	130	738	540	10	5	24	20	<mark>77</mark>	90
46	Waitomo Stm SH31 Otorohanga	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	0.520	0.520	0.925	0.925	0.008	0.008	0.026	0.026	<mark>292</mark>	130	1453	540	28	5	<mark>55</mark>	20	<mark>33</mark>	<mark>50</mark>
53	Mangapu River Otorohanga	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	0.860	0.860	1.428	1.428	0.016	0.016	0.064	0.064	<mark>445</mark>	<mark>130</mark>	4284	540	<mark>43</mark>	5	<mark>61</mark>	20	<mark>27</mark>	<mark>50</mark>
52	Waitomo Stm Tumutumu Rd	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	NA ³	0.630	0.630	0.825	0.825	0.004	0.004	0.013	0.013	<mark>175</mark>	130	2241	540	<mark>19</mark>	<u>5</u>	<mark>36</mark>	20	<mark>45</mark>	<mark>50</mark>

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

<u>Table 3.11-1:</u> Dune, Riverine, Volcanic and Peat Lakes Freshwater Management Units

						Attributes			
Lake FMU	Annual Median Chlorophyll a (mg/m³)	Annual Maximum Chlorophyll a (mg/m³)	Annual Median Ammonia ¹ (mg NH ₄ -N/L)	Annual Maximum Ammonia¹ (mg NH₄-N/L)	Annual Median Total Nitrogen (mg/m³)	Annual Median total Phosphorus (mg/m³)	95 th percentile <i>E. coli</i> (<i>E. coli</i> /100mL)	80 th percentile cyanobacteria (biovolume mm³/L)	Clarity (m)
	80 year*	80 year*	<u>80 year*</u>	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 <u>Zone</u>	12	60	0.24	0.40	750	50	540	1.8+	1
Peat	12	60	0.24	<u>0.40</u> ¹⁵²	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

¹⁵² WRC PC1-3635

² This Attribute is expressed as a minimum requirement. To meet the Objective, the % of water clarity measurements exceeding 1.0m must be equal to or greater than the numerical value in Table 3.11-1.

³ Attribute is not applicable to the sub-catchment

^{+1.8}mm³/L biovolume equivalent of potentially toxic cyanobacteria or 10mm³/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

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	<u>2</u>	1		
Whakapipi	<u>3</u>	<u>1</u>		
Whangamarino at Jefferies Rd Br	<u>8</u>	<u>1</u>		
Whangamarino at Island Block Rd	10	1		
Opuatia	11	1		
Waerenga	12	<u>1</u>		
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 <mark>Waipā</mark>	44	1		
Pokaiwhenua	45	1		
Mangamingi	48	1		
Waipā 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		

<mark>Waipā</mark> 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 <u>1</u>
Awaroa (Rotowaro) at Sansons Br	19	2 <u>1</u>
Firewood	21	2
Komakorau	22	2
Waipā at Waingaro Rd Br	24	2
Mangaone	31	2
Waipā at SH23 Br Whatawhata	34	2 <u>1</u>
Kaniwhaniwha	36	2
Mangapiko	38	2
Puniu at Bartons Corner Rd Br	40	2
Waipā at Pirongia-Ngutunui Rd Br	43	2
Waitomo at SH31 Otorohanga	46	2
Whakauru	49	2
Tahunaatara	54	2
Otamakokore	59	2
Waipā at Otewa	60	2
Kawaunui	62	2
Waikato at Whakamaru	67	2
Mangakara	69	2
Mangakino	71	2
Mangatawhiri	<u>1</u>	<u>3</u>
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 <u>1</u>
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 <u>1</u>
Waikato at Ohakuri	66	3
Waikato at Ohaaki	73	3 <u>1</u> 153
Pueto	74	3

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

^{*} part sub-catchment

¹⁵³ DoC PC1-11067

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

Definition 75th percentile nitrogen leaching value

75th percentile nitrogen leaching value: The 75th percentile value (units of kg N/ha/year) of all of the Nitrogen Reference Point values for dairy farming properties and enterprises within each river (including properties within any lake Freshwater Management Unit within the relevant river Freshwater Management Unit)¹⁵⁴ Freshwater Management Unit^ and which are is determined by the Chief Executive of the Waikato Regional Council and published on the Waikato Regional Council website and can be based on aggregated data supplied to the Waikato Regional Council and individual farm data 155</sup> received by the Waikato Regional Council by 30 November 2020YYY. 156

Definition Arable cropping

Arable cropping: means the following arable crops:

- i. grain cereal, legume, and pulse grain crops
- ii. herbage seed crops

oilseeds

- iii. crops grown for seed multiplication for use in New Zealand or overseas
- iv. hybrid and open pollinated vegetable and flower seeds and includes maize grain, maize silage, cereal silage, and mangels.

Definition - Best management practice/s

Best management practice/s: For the purposes of Chapter 3.11, means maximum feasible mitigation to reduce the diffuse discharge of nitrogen, phosphorus, sediment or microbial pathogens from land use activities 157.

Definition - Certified Farm Environment Planner

Certified Farm Environment Planner: is a person or entity¹⁵⁸ certified by the Chief Executive Officer of Waikato Regional Council and listed on the Waikato Regional Council website as a Certified Farm Environment Planner and has as a minimum the following qualifications and experience:

- a. <u>five three</u>¹⁵⁹ years' <u>relevant</u> experience in <u>agricultural and horticultural</u>¹⁶⁰ the management of pastoral, horticulture or arable farm systems; and
- a Certificate of Completion in Advanced Sustainable Nutrient Management in New Zealand Agriculture from Massey
 <u>University or 161 completed an equivalent 162</u> advanced training or a tertiary qualification in sustainable nutrient management (nitrogen and phosphorus) 163; and
- c. experience in soil conservation and sediment management;

and agrees to follow the procedures and guidelines set out by Waikato Regional Council and audits of the Certified Farm Environment Planner's work by Waikato Regional Council show that the Planner is preparing and/or approving Farm Environment Plans in accordance with the procedures and guidelines. 164

Note: Certified Farm Environment Planners will be listed on the Waikato Regional Council's website.

¹⁵⁴ Federated Farmers V1PC1-790

¹⁵⁵ DairyNZ PC1-10253

¹⁵⁶ N and C Prendergast PC1-1779, R Hathaway PC1-5399

¹⁵⁷ Federated Farmers V1PC1-791, FANZ PC1-10659

¹⁵⁸ Forest and Bird PC1-8478

¹⁵⁹ Hill Country Farmers Group PC1-8072

¹⁶⁰ NZIPIM PC1-8445

¹⁶¹ Ballance PC1-7113, FANZ PC1-10662, Ravensdown PC1-10187, Oji PC1-8854

¹⁶² Ravensdown PC1-10187, FANZ PC1-10662

¹⁶³ NZIPIM PC1-8445

¹⁶⁴ Forest and Bird PC1-8478

For a particular farm or enterprise, the role of a Certified Farm Environment Planner is to:

- a. Assist that farmer with the preparation of a Farm Environment Plan; or
- b. Review and certify the Farm Environment Plan with purpose of providing an expert opinion whether farm activities are being undertaken in a way that is consistent with objectives, principles and standards in Schedule 1 when required, being:
 - prior to lodging a land use consent application;
- ii. within 12 months of the granting of a consent application;
 - iii. in accordance wth intervals set out in the conditions of consent; and
 - iv. when there has been a change in the FEP that requires recertification.

A Certified Farm Environment Planner is not to:

- a. assist a farmer with the preparation of a FEP and then personally certify, or be part of an organisation that certifies, that same plan; or
- b. as part of the certification process, rewrite or modify the plan to assist with its certification.

A Certified Farm Environment Planner must be registered and approved by the Chief Executive of the Waikato Regional Council and abide by the requirements including professional development obligations, professional conduct and impartiality. They will be subject to having FEPs they prepared audited and moderated, as required, and should there be continual inconsistency and deficiencies in the quality of their FEPs then their registration may be revoked.

Definition - Certified Farm Nutrient Advisor

Certified Farm Nutrient Advisor: is a person or entity certified by the Chief Executive Officer of Waikato Regional Council and listed on the Waikato Regional Council website as a certified farm nutrient advisor and has the following qualifications and experience as meeting the following criteria:

- a. <u>Is a certified as a Nutrient Management Adviser under the Nutrient Management Adviser Certification Programme</u>
 <u>Ltd; or 165 Has completed nutrient management training to at least intermediate-level, and</u>
- b. Has <u>completed nutrient management training to at least an advanced level 166</u>, and <u>hHas at least two years</u> experience in nutrient management planning: 167

and agrees to follow the procedures and guidelines set out by Waikato Regional Council and audits of the Certified Farm Nutrient Advisor's work by Waikato Regional Council show that that the Advisor is preparing robust and reliable nutrient loss reports. 168

Note: Certified Farm Nutrient Advisors will be listed on the Waikato Regional Council's website. 169

Definition - Certified Industry Scheme/s

Certified Industry Sector¹⁷⁰ **Scheme/s**: is a scheme group or organisation responsible for preparing and assisting with the implementation of Farm Environment Plans¹⁷¹ that has been certified by the Chief Executive Officer of Waikato Regional Council and listed on the Waikato Regional Council website as meeting the standards¹⁷² assessment criteria and requirements set out in Schedule 2 of Chapter 3.11.

Definition Commercial vegetable production

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

- i. <u>asparagus</u>, artichokes, Asian vegetables, beans, beetroot, boxthorn, broccoflower, broccolini, 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, <u>onions</u>, parsnips, peas, <u>potatoes</u>, puha, pumpkin, purslane, radishes, rakkyo, rhubarb, salad leaves, salsify, scallopini, scorzonera, shallots, silverbeet, spinach, spring onions, sprouted beans and seeds, squash, swedes, sweetcorn, taro, <u>tomatoes</u>, turnips, ulluco, watercress, witloof, yakon, yams, zucchinis, potatoes, tomatoes, asparagus, onions; and
- ii. the hybrids of the vegetables listed in subparagraph i.

¹⁶⁵ Ballance PC1-7090. FANZ PC1-10663. Ravensdown PC1-10199

¹⁶⁶ DairyNZ PC1-10251, Genetic Technologies Ltd PC1-3290, S.J. Williams PC1-5959

¹⁶⁷ Genetic Technologies Ltd PC1-3290, NZIPIM PC1-8446

¹⁶⁸ Forest and Bird PC1-8494

¹⁶⁹ A McGovern PC1-8292

¹⁷⁰ Mercury PC1-9684

¹⁷¹ Maniapoto Maori Trust Board PC1-9338

¹⁷² Fonterra PC1-10583

Definition Cultivation

Cultivation: For the purposes of Chapter 3.11, means preparing land for growing pasture or a crop and the planting, tending and harvesting of that pasture or crop, but excludes:

- a. direct drilling of seed.
- b. no-tillage practices.
- c. recontouring land.
- d. forestry.

<u>Dairy Cattle:</u> means cows that are or have been used for milk production, whether they are being grazed on a milking platform or not. ¹⁷³

Definition Dairy Farming

Dairy Farming: means farming of dairy cows on a milking platform for milk production 174.

Definition - Diffuse discharge/s

Diffuse discharge/s: For the purposes of Chapter 3.11, means the discharge of contaminants that results from land use activities including cropping and the grazing of livestock and includes non-point source discharges.

Definition Drain

Drain: For the purposes of Chapter 3.11, means an artificially created <u>open</u>¹⁷⁵ channel designed to lower the water table and/or reduce surface flood risk but does not include any modified (e.g. straightened) natural watercourse.

Definition - Drystock Farming

Drystock Farming¹⁷⁶: means pasture grazing beef cattle, dairy animals grazed off a **milking platform**, sheep, and deer for meat, wool, or velvet production.

Definition - Edge of field mitigation/s

Edge of field mitigation/s: mitigation actions or technologies to reduce loss of contaminants from farm land by intervening at edge of field either on or off-farm, and includes constructed wetlands, sedimentation ponds and detention bunds.

Definition - Enterprise/s

Enterprise/s: means one or more parcels of land held in single or multiple ownership to support the principle land use or land which the principle land use is reliant upon, and constitutes a single operating unit for the purposes of management. An enterprise is considered to be within a sub-catchment if more than 50% of that enterprise is within the sub-catchment.¹⁷⁷

Definition - Escherichia coli (E. coli)

Escherichia coli (E. coli)¹⁷⁸: is a bacterium used as an indicator that faecal contamination of the water has almost certainly occurred, so pathogens may be present in the water (Pathogen: an organism capable of causing an illness in humans).

Definition Farm Environment Plan/s

¹⁷³ Consequential change to the relief sought by P Hurley PC1-1088, Federated Farmers V1PC1-338.

 $^{^{\}rm 174}$ Forest and Bird PC1-8292

¹⁷⁵ Fert NZ PC1-10668

¹⁷⁶ adapted from NIWA 2016. https://www.niwa.co.nz/our-science/freshwater/tools/kaitiaki_tools/land-use/agriculture/dry-stock

¹⁷⁷ Brodie PC1-2889, Waitomo District Council PC1-10312, G Kilgour PC1-1884

¹⁷⁸ Ministry of Health Drinking-water Standards for New Zealand 2005 (Revised 2008) definition pg 146

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

Definition - Farming activities

Farm: The property area on which the farming occurs.

Farming activities: For the purposes of Chapter 3.11, the grazing of animals or the growing of produce, including crops, commercial vegetable production and orchard produce, but not does not include:

- a. ____planted production forest; or
- the growing of crops on land irrigated by consented municipal wastewater discharges; or
- c. production or growing of produce undertaken entirely within a building; or 179
- d. production or growing produce for consumption by the occupier of the property or their family.¹⁸⁰

<u>Feedlot:</u> means the containment and feeding of livestock, covered or uncovered, for the purpose of finishing for meat production, and the activity precludes the maintenance of vegetative groundcover.¹⁸¹

Definition Five year rolling average

Five year rolling average 182; means the average of modelled nitrogen leaching losses predicted by OVERSEER* from the most recent 5 years.

Definition Forage crop

<u>Winter</u>¹⁸³ Forage crop: means crops, annual or biennial, <u>but excluding pasture species</u>, ¹⁸⁴ which are grown to be utilised by grazing or harvesting as a whole crop <u>between 1 May and 30 September of each year</u>. ¹⁸⁵

Definition Good Management Practice/s

Good Management Farming¹⁸⁶ **Practice/s:** For the purposes of Chapter 3.11, means industry agreed and approved¹⁸⁷ practices and actions undertaken on a farm property to manage and reduce the diffuse discharge of contaminants to a waterbody.

Definition Livestock crossing structure

Livestock crossing structure: means a lawfully established structure installed to allow that enables 189 livestock to cross a water body such that the livestock do not enter or have access to the bed of the water body 190.

Definition - Mahinga kai

Mahinga kai: the customary and contemporary gathering and use of naturally occurring and cultivated foods (also known as Hauanga kai).

¹⁷⁹ Gourmet Mokai Ltd PC1-7250, Tuaropaki Trust PC1-3009

¹⁸⁰ H Clarke PC1-8466

¹⁸¹ Consequential change to the relief sought by P Hurley PC1-1088, Federated Farmers V1PC1-338.

¹⁸² Adapted from Freeman, M.; (ed). (2016). Using Overseer-Establishing national guidance for the appropriate and consistent use of Overseer by regional councils in setting and managing water quality limits Consultation Draft Overseer Guidance Project, Overseer Management Services Ltd. Wellington, New Zealand

 $^{^{\}rm 183}$ New Zealand Grain and Seed Trade Association PC1-1680

¹⁸⁴ Genetic Technologies Ltd PC1-3341, A McGovern PC1-8295

¹⁸⁵ New Zealand Grain and Seed Trade Association PC1-1680

¹⁸⁶ Ballance PC1-6862, FANZ PC1-9712

¹⁸⁷ Oii PC1-8937

¹⁸⁸ Federated Farmers V1PC1-800

¹⁸⁹ WRC PC1-3672

¹⁹⁰ Fish and Game PC1-11017

Definition - Microbial pathogen/s

Microbial pathogen/s¹⁹¹: A microorganism capable of inducing illness in humans.

Definition - Milking platform

Milking platform: means that area devoted to feeding cows on a daily basis <u>and includes land used for the growing of feed</u> for the cows within the same property during the milking season¹⁹².

Definition Nitrogen Reference Point

Nitrogen Reference Point: The nitrogen loss number (units of kg N/ha/year) that is derived from an OVERSEER*use protocol compliant OVERSEER*file that describes the **property** or farm **enterprise** and farm practices in an agreed year or years developed by a **Certified Farm Nutrient Advisor**, using the current version of the OVERSEER*model (or another model approved by the Council) for the **property** or **enterprise** at the "reference" point in time.

The nitrogen discharge benchmark established for a property, when the farm system in place during the reference period is modelled using the most recent version of the Overseer model (or an alternative model approved by the Chief Executive Officer of the Waikato Regional Council) as described in Schedule B.¹⁹³

Definition Offset/s

Offset/s: For the purpose of Chapter 3.11 means for a specific contaminant/s a measurable action, demonstrated through robust and appropriate methodology, that reduces the intensity, extent and/or duration of residual adverse effects on water quality and will result in a positive benefit contributing to the restoration of the Waikato and Waipā Rivers.

Definition Point source discharge/s

Planted production forest: means land used solely for commercial forestry operations and is not part of a farming enterprise that contains a small forest or plantation for land stabilisation and nutrient loss mitigation.

Point source discharge: A stationary or fixed facility from which contaminants are discharged or emitted. For the purposes of Chapter 3.11, means discharges from a stationary or fixed facility, including includes the irrigation onto land from consented industrial and municipal wastewater systems. 194

Regionally significant industry: means an economic activity based on the use of natural and physical resources in the region, which is demonstrated to have benefits that are significant at a regional or national scale. These may include social, economic or cultural benefits. 195

Regionally significant infrastructure: includes:

- a. pipelines for the distribution or transmission of natural or manufactured gas or petroleum;
- b. infrastructure required to permit telecommunication as defined in the Telecommunications Act 2001;
- c. radio apparatus as defined in section 2(1) of the Radio Communications Act 1989;
- d. the national electricity grid, as defined by the Electricity Industry Act 2010;
- e. a network (as defined in the Electricity Industry Act 2010);
- f. infrastructure for the generation and/ or conveyance of electricity that is fed into the national grid or a network (as defined in the Electricity Industry Act 2010);
- g. significant transport corridors as defined in Map 6.1 and 6.1A;
- h. <u>lifeline utilities, as defined in the Civil Defence and Emergency Management Act 2002, and their associated essential infrastructure and services;</u>
- i. <u>municipal wastewater treatment plants, water supply treatment plants and bulk water supply, wastewater conveyance and storage systems, municipal supply dams (including Mangatangi and Mangatawhiri water supply dams) and ancillary infrastructure;</u>
- j. flood and drainage infrastructure managed by Waikato Regional Council;

¹⁹¹ Adapted from Ministry of Health. 2008. Drinking-water Standards for New Zealand 2005 (Revised 2008). Wellington

¹⁹² Pamu PC1-5938

¹⁹³ Fonterra PC1-10580, Pamu PC1-5932

¹⁹⁴ Fonterra PC1-10593

¹⁹⁵ Trustees of Highfield Deer Park PC1-3978

- k. Hamilton City bus terminal and Hamilton Railway Station terminus; and
- I. Hamilton International Airport. 196

Definition - Restoration

Restoration: is the process of assisting the recovery of an ecosystem that has been degraded, damaged or destroyed. It is an intentional activity that initiates or accelerates an ecological pathway, or trajectory through time, towards a reference state consistent with Objective 1.¹⁹⁷

Sacrifice Paddock: means the containment of livestock in a paddock that precludes the maintenance of vegetative groundcover. 198

Definition Setback

Setback: means the distance from the bed of a river or lake, or margin of a wetland.

Definition - Stock unit

Stock unit: means an animal that eats 6,000 megajoules of metabolisable energy per year, <u>and for the stock listed, is determined by and is illustrated in 199</u> the following stocking rate table 200:

Stock class	Number of Stock Units per animal	Animal performance definition			
Dairy bull	6.1	620kg Friesian breeding bull			
Dairy cow	10.4	450kg F8J8 dairy cow producing 400kg MS			
Dairy heifer 1-2 years age	5.1	F8J8 199 – 419kg Jul to Apr			
Dairy heifer calf (weaned)	1.6	F8J8 110 – 199kg Dec to Jun			
Beef bull	6	620kg Beef cross MA breeding bull			
Beef cow	7.5	480kg MA Beef cross breeding cow calving at 96%			
Bull 1-2 years age	6.8	Friesian bull 209kg to 535kg slaughter weight			
Steer 1-2 years age	5.8	WF steer 203kg to 478kg slaughter weight			
Heifer 1-2 years age	5.7	WF heifer 208kg to 420kg slaughter weight			
Steer calf < 1 year (weaned)	2.7	WF steer 100kg to 203kg Dec to Jun			
Bull calf < 1 year (weaned)		Fresian 100kg to 209kg bull Dec to Jun			
Heifer calf < 1 year (weaned)	1.6	WF heifer 90kg to 208kg Dec to Jun			
Ram	1	73kg Romney ram, 4.5kg wool			
Adult ewe	1.01	63kg Romney MA ewe lambing at 126%, 4.5kg wool			
Sheep 1-2 years of age	0.9	Romney hogget 46kg to 66kg, 4kg wool			
Sheep <1 years of age (weaned)	0.5	Romney 26kg to 46kg from Dec to June, 2kg wool			
Bucks & does < 1 year (weaned)	0.5	OVERSEER® default			

¹⁹⁶ Trustees of Highfield Deer Park PC1-3978

¹⁹⁷ Federated Farmers V1PC1-807

 $^{^{198}}$ Consequential change to the relief sought by P Hurley PC1-1088, Federated Farmers V1PC1-338.

¹⁹⁹ WRC V1PC1-1535

²⁰⁰ Table adapted from Perrin Ag Consultants Ltd 2016. Bay of Plenty Regional Council: Methodology for creation of NDA reference files and stocking rate table; version 2. Table 1: Stocking rate table pg. 18.

Angora does	1.1	OVERSEER® default
Feral does	0.9	OVERSEER* default
Feral bucks & wethers	0.5	OVERSEER* default
Stag	2.4	Red stag 200kg, 4kg velvet
Breeding hind	2.5	Red hind 110kg, 86% fawning
Hind 1-2 years age	1.2	Red hind 53kg – 75kg
Hind fawn (weaned)	1	Red hind 37kg – 53kg over 4 months, annualised to 12 months
Stag 1-2 years age	2.3	Red stag 55kg – 159kg over 12 months, 2kg velvet
Stag fawn (weaned)	1.1	Red stag 42kg – 55kg over 4 months, annualised to 12 months
Alpaca	0.8	OVERSEER* default
Llama	1.6	OVERSEER* default
Pony	6	OVERSEER* default
Pony brood mare w/foal	8	OVERSEER* default
Small hack	8	OVERSEER* default
Small hack broodmare w/foal	10	OVERSEER*default
Large hack	12	OVERSEER* default
Thoroughbred	12	OVERSEER* default
Large hack broodmare w/foal	14	OVERSEER* default
Milking ewe	0.9	70kg ewe producing 50kg MS
Milking goat	1.8	80kg nanny producing 140kg MS

Definition Sub-catchment

Stocking rate: is defined as the annual average of monthly stock units on a property over a 12-month period.

Sub-catchment: For the purposes of Chapter 3.11, means an area of land within the Waikato or Waipa 201 River catchments representing the contributing area draining to one of $\frac{6974}{202}$ locations in the stream and river network, and used as the basic spatial unit for analysis and modelling 203 .

Definition - Tangata whenua ancestral lands

Tangata whenua ancestral lands: means land that has been returned through settlement processes between the Crown and tangata whenua of the catchment²⁰⁴, or is, as at the date of notification (22 October 2016), Māori freehold land under the jurisdiction of Te Ture Whenua Maori Act 1993.

Te Ture Whaimana: means the Vision and Strategy as set out in Schedule 2 of the Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010, Schedule 1 of the Ngāti Tūwharetoa, Raukawa, and Te Arawa River Iwi Waikato River Act 2010, and Schedule 1of the Ngā Wai o Maniapoto (Waipā River) Act 2012.

Definition - Woody vegetation

²⁰¹ Mercury Limited PC1-9685

²⁰² Refer to Map 3.11-2.

²⁰³ Federated Farmers V1PC1-810

²⁰⁴ Iwi of Hauraki V1PC1-455

Woody vegetation: means (excluding weed species).	indigenous	vegetation,	planted	production	forest,	and a	any ot	her	non-pastoral	vegetation

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