Waikato Regional Council Policy Series 2020/02

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

Te Panonitanga 1 i te Mahere Ā-Rohe a Waikato e Marohitia Nei: Ngā Riu o Ngā Awa o Waikato me Waipā

Decisions Version

Te putanga e mau nei i ngā whakatau

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Te Kaunihera ā Rohe o Waikato

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

PART A

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

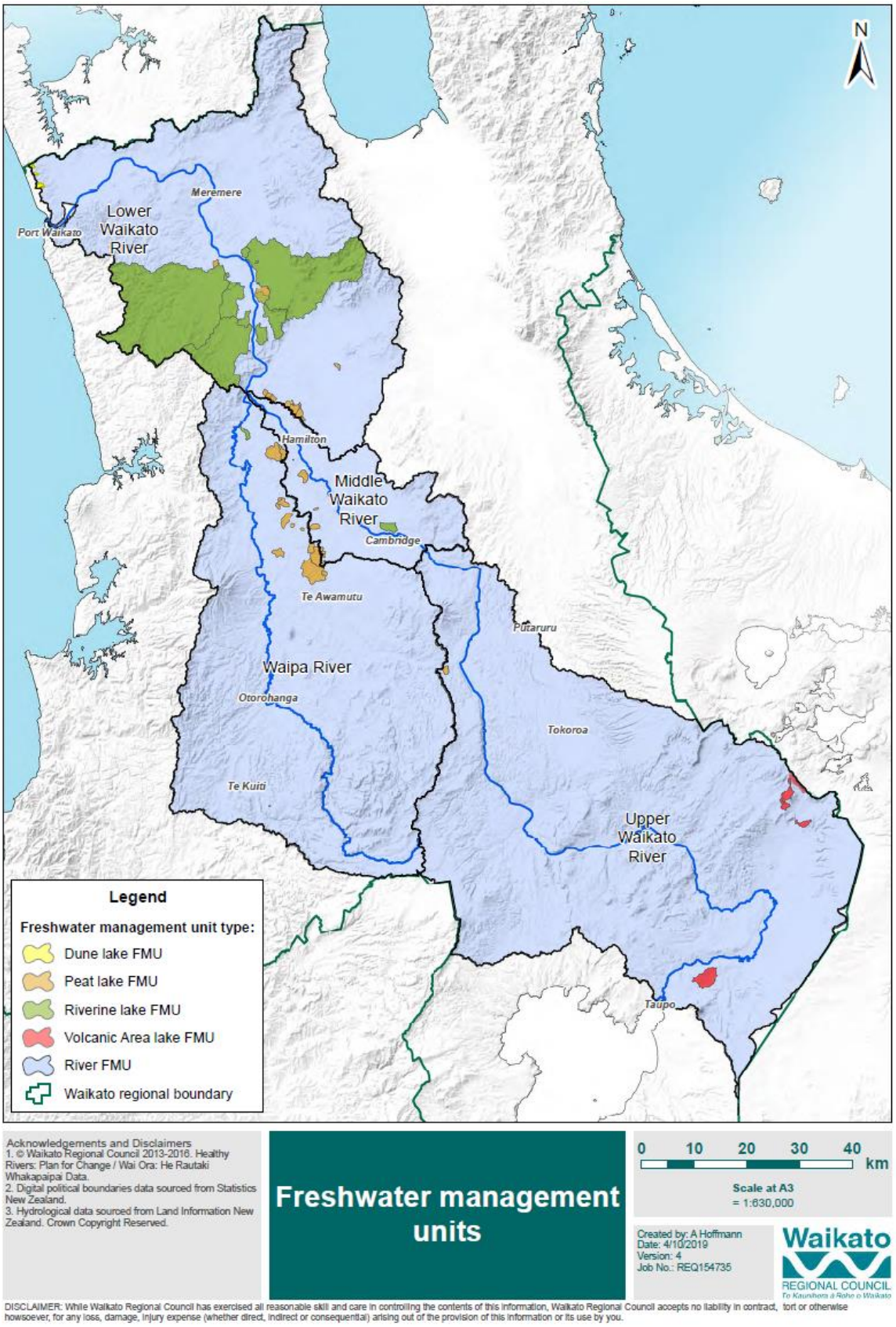
This Chapter 3.11 applies to the Waikato and Waipā River catchments. The map shown in Map 3.11-1 shows the general catchment boundary. This Chapter is additional to all other parts of the Waikato Regional Plan. Where there are any inconsistencies, Chapter 3.11 prevails.

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 (UW)
- Middle Waikato River (MW)
- Lower Waikato River (LW)
- Waipā River (WA)
- 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.



Map 3.11-1: Map of the Waikato and Waipā River catchments, showing Freshwater Management Units/ Te Mahere 3.11-1: Te mahere o ngā riu o ngā awa o Waikato me Waipā e whakaatu ana i ngā Wae Whakahaere Wai Māori

Background and explanation

Co-management of the Waikato and Waipā 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 Tūwharetoa, Raukawa, and Te Arawa River Iwi Waikato River Act 2010 and Nga Wai o Maniapoto (Waipa River) Act 2012.

The iwi partners in the development of Chapter 3.11 are Ngāti 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 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 iwi partners, 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 as the primary direction setting document for the Waikato and Waipā Rivers. Te Ture Whaimana o Te Awa o Waikato 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 o Te Awa o Waikato states that the Waikato and Waipā Rivers are degraded and require, amongst other things, restoration and protection. One objective 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 o Te Awa o Waikato 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 diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens 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 the latest scientific methods, as they become available;
- Preparing for future requirements on what can be undertaken on the land.

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. 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.

Full achievement of Te Ture Whaimana o Te Awa o Waikato will be intergenerational

The Plan has specified an 80-year timeframe to achieve the water quality objectives of Te Ture Whaimana o Te Awa o Waikato. 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, full achievement of Te Ture

Whaimana o Te Awa o Waikato 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.

Because of the extent of change required to restore and protect water quality in the 80-year timeframe, this Plan Change 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 from when Chapter 3.11 is operative, that will be required to achieve 20 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.

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 improvement in farming practice, with monitoring and auditing to ensure outcomes are being achieved;
- An accreditation system to be set up for people, and/or sector schemes, who will assist farmers to prepare their Farm Environment Plan;
- 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 Chapter 3.11.

Land use change from woody vegetation to animal grazing, or any farming, other than dairy farming to dairy farming, or any land use to commercial vegetable production, will be required to obtain resource consent either as a Discretionary or Non-Complying Activity. 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 consistent with Te Ture Whaimana o Te Awa o Waikato.

Reviewing progress toward achieving Te Ture Whaimana o Te Awa o Waikato

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 o Te Awa o Waikato, with on-farm actions carried out and point source discharges reviewed. 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 o Te Awa o Waikato 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 targets and methods.

The Resource Management Act requires that regional councils commence reviews of their regional plans 10 years after those plans are operative.

During the life of this Plan, Waikato Regional Council will track the progress of actions undertaken on the land towards achieving Te Ture Whaimana o Te Awa o Waikato.

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 Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010, ko Ngati Tuwharetoa, Raukawa, and Te Arawa River Iwi Waikato River Act 2010, me Nga Wai o Maniapoto (Waipa River) Act 2012.

Ko ngā āpiti ā-iwi i whai wāhi ki te whanaketanga o te Upoko 3.11, ko ngā iwi o Ngāti Maniapoto, o Raukawa, o Ngāti Tūwharetoa, o Te Arawa ki ngā tahataha o te awa, me Waikato-Tainui. Kei roto i te ture e takoto ana ngā tukanga e pā ana ki te whakarite, ki te arotake, ki te panoni rānei i te mahere ā-rohe mō te taha ki te whai wāhitanga o ngā iwi ki te tukanga. Kei reira anō hoki te here kia whakatū te Kaunihera i tētehi Ohu Mahi Ngātahi i te taha o ngā āpiti ā-iwi, ko tētehi o ōna 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 ahu 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 a Aotearoa rānei mō ngā takutai moana, mātua rā, ko Te Ture Whaimana o Te Awa o Waikato, waihoki he wāhanga tēnei nō Te Tauākī Kaupapa Here ā-Rohe a Waikato.

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

- whakaiti i te rerenga o te hauota, o te pūtūtae-whetū, o te waiparapara me te tukumate moroiti i te one ki te wai
- whakahaere tonu i te rukenga roha me te rukenga i ngā pū tuwha anō hoki o te hauota, o te pūtūtae-whetū, o te waiparapara, o te tukumate moroiti
- tuku i te tangata me ngā hapori kia taunga haere rātou ki ngā here o te Upoko 3.11 me te tautoko i ngā tūmahi hei whakatutuki i ngā whāinga pae tata, i runga anō i te mārama me whai wāhi tonu ki ngā mahere ā-rohe ka whai ake, te whakaitinga o ngā rukenga roha o te hauota, o te pūtūtae-whetū, o te waiparapara me te tukumate moroiti 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 i runga i te whenua, i roto anō hoki i te wai kia āhei ai te whai i te mātauranga Māori me ngā tikanga pūtaiao hou tonu, ka puta mai ana aua tikanga
- whakarite i ngā herenga o anamata mō ngā mahi e āhei ana i runga i te whenua

Te Kounga o te 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 2014 (NPS FM) ki te whakarite whāinga wai māori me te whakatakoto tāpuitanga, paetae rānei (he tāpuitanga te paetae me whakatutuki i roto i te wā i tohua ai). Me mātua whakaū e ngā kaunihera ā-rohe te kauparenga o te nui rawa o 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 o nāianei, 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 moroiti anō hoki. Kāore e taea e ngā hōpua wai o ngā riu o ngā awa o Waikato me Waipā te whakawhenumi ētehi atu rukenga ā-hauota, ā-pūtūtae-whetū, ā-waiparapara, ā-tukumate moroiti anō hoki, me te kore o ngā uara o te hapori e pā kinongia. Me mātua 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 kei roto i 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 māori 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 whakawhanake i te Upoko 3.11, ko te tautuhi i ngā wae whakahaere wai māori me ngā uara mō 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 paetae rānei e whakatau ngā here e tutuki ai ngā āhuatanga. I 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, mā reira e āhei ai te whakatutukitanga o tētehi whāinga wai māori.

Ka pā ki ngā whakatupuranga maha te whakatutukitanga o ngā wāhanga katoa o Te Ture Whaimana o Te Awa o Waikato

Kua tohua e te Mahere te 80 tau hei pae wā e tutuki ai ngā whāinga kounga wai o Te Ture Whaimana o Te Awa o Waikato. Ka pā te pae wā nei ki ngā whakatupuranga maha, ā, he nui ake hoki ngā tūmanako kei roto, tēnā i ngā paeraro ā-motu kua whakatakotoria i te Tauākī Kaupapa Here ā-Motu mō te Whakahaere Wai Māori, nā te mea ko tā te pae wā nei, he whai kia tutuki ngā paerewa teitei ake o te wai ora ka kauria e te tangata, e kohia ai hoki he kai i ngā wāhi katoa o ngā awa me ngā riu o Waikato me Waipā, mai i ngā mātāpuna ki ngā pūaha. E ai ki ngā pārongo e wātea ana ināianei, ka nui te utu, ka uaua hoki te whakatutukitanga o ngā wāhanga katoa o Te Ture Whaimana o Te Awa o Waikato i mua i te tau 2096. E whakaarotia ana te 'āputa auahatanga' i te pae wā o te 80 tau, arā, e whakatutuki katoatia ai te kounga wai me whai hangarau rawa, me whai tikanga rawa 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 te nui tonu o ngā whenua, he āhua nui, he tino nui rānei ngā rukenga ka puta i ērā whenua ki ngā momo whakamahinga e iti iho ai ngā rukenga ka puta.

Nā te whānuitanga o ngā panonitanga me mātua whai hei whakaora mai anō, hei tiaki hoki i te kounga wai i te roanga o te pae wā o te 80 tau, kua whai te panonitanga ā-mahere nei i tētehi huarahi whai tūāoma. I tēnei huarahi ka wehea ngā whakapainga me mātua puta ki ētehi tūāoma, ko tā te tuatahi, he whakarite, he whakatinana anō hoki i te whānuitanga o ngā tūmahi i roto i te tekau tau ka whai i muri i te kōkiritanga o te Upoko 3.11, e tutuki ai te rua tekau ōrau o ngā panonitanga me mātua puta, i te kounga wai ināianei ki te kounga tauroa o te wai hei te tau 2096. E mārama ana, i tēnei huarahi whai tūāoma he raru pea ka pā ki te pāpori i te nui me te wawe o ngā panonitanga ā-whakamahinga whenua, ā, he nui te mahi, he nui hoki te utu hei pīkau mā te hunga whakamahi rawa, mā te ahumahi, mā te Kaunihera ā-Rohe o Waikato hoki ki te whakarite i te tukanga panonitanga i te tūāoma tuatahi. Me mātua whai tukanga whakatinana e hou ana, me whai tohungatanga, me pāhekoheko hoki hei taunaki i te tūāoma tuatahi. Mā te huarahi whai tūāoma e whai wā ai kia puta mai ngā hangarau me ngā tikanga auaha me mātua whakawhanake hei whakatutuki i ngā paetae me ngā tāpuitanga i roto i ngā mahere ā-rohe ka whai ake.

I te huarahi hei whakaiti i te tāhawahawatanga o te wai e ngā pāmu kararehe e whakatinanahia ana e te Upoko 3.11, me:

- aukati ngā kararehe i ngā hōpua wai hei tūmahi mātāmua e iti iho ai te pānga o te kino
- whai Mahere Taiao ā-Pāmu (tae atu ki ngā mahere mā ngā kaiwhakatupu huawhenua ā-arumoni) e whakaū ana i te whakapainga ake o ngā tikanga whakahaere pāmu e hāngai ana ki te ahumahi, ka aroturukihia, ka tātarihia hoki e tutuki ai ngā putanga
- whakarite tētehi pūnaha whakamanatanga mā te hunga, mō ngā kaupapa ā-rāngai hoki/rānei ka āwhina i ngā kaipāmu ki te whakarite i ā rātou Mahere Taiao ā-Pāmu
- 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 tūraru e pā ana ki te tāhawahawatanga o ngā wai i ngā riu o ngā kautawa, ka whakatinana hoki i ngā mahi whakaiti iho i te pānga o te kino ka titiro ki tua o ngā rohenga o ia pāmu, hei tautuhi i ngā rongoā e whai hua katoa ana i runga i te utu pai.

He nui ngā whakatau kua mana kē tae atu ki ngā ture kei roto i te Mahere ā-Rohe mō Waikato, ka hāngai tonu ki ngā rukenga i ngā 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 i runga i tā te Upoko 3.11.

Me mātua whai whakaaetanga ā-rawa taiao ngā panonitanga ā-whakamahinga whenua e huri ai te uru rākau hei pātītī whāngai kararehe, e huri ai rānei te pāmu i tua atu i te pāmu miraka kau hei pāmu miraka kau, e rerekē ai rānei te whakamahinga o te whenua hei whenua whakatupu huawhenua ā-arumoni, hei Tūmahi e hāngai ana ki tā te kaiwhakamahi e hiahia ai, hei Tūmahi rānei kāore e whai ana i te ture. Kua whakaritea kia āhua ngāwari ake ngā here mō te whakamahinga o ngā whenua Māori kāore i taea te whakawhanake nā ngā whakararutanga o mua me ngā whakararutanga ā-ture nei. Nā te mea kua pā ēnei whakararutanga ki te hononga o te tangata whenua ki ō rātou whenua tūpuna, me ngā pānga ā-ahurea, ā-ōhanga hoki i puta rā i ērā, e whai ana te Upoko 3.11 ki te whai whakaaro ki aua hononga, ki te whakapakari hoki i aua hononga, kia hāngai ai ki tā Te Ture Whaimana o Te Awa o Waikato.

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

Ko tā te whāinga matua o te Upoko 3.11, he here i ngā kaiwhakamahi rawa taiao kia tīmata rātou ki te whakaiti i ngā rukenga tāhawahawatanga hei tūāoma tuatahi e tutuki ai Te Ture Whaimana o Te Awa o Waikato, e whakahaerehia ai ētehi tūmahi i runga pāmu, e arotakehia anō hoki ai ngā rukenga i ngā pū tuwha. Mā te huarahi whai tūāoma e whai wā ai te tangata me ngā hapori ki te panoni, i runga i te mārama he whakaitinga atu anō me mātua tutuki, i ngā mahere ā-rohe ka whai ake.

Me mātua arotake pokapoka Te Ture Whaimana o Te Awa o Waikato kei roto i ngā Ture e toru mō ngā Awa e Te Manatū Whakahaere i Te Awa o Waikato, ākuanei pea māna e panoni aua ture kia whakaurua atu ai he paetae, 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.

I te roanga o 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 o Te Awa o Waikato.

3.11.1 Objectives/Ngā Whāinga

Objective 1/Te Whāinga 1:
In relation to the effects of nitrogen, phosphorus, sediment and microbial pathogens on water quality, the health and wellbeing of the Waikato and Waipā Rivers, including all springs, lakes and wetlands within their catchments, is both restored over time and protected, with the result that in particular, they are safe for people to swim in and take food from at the latest by 2096.

Objective 2 (Freshwater Objective)/Te Whāinga 2 (Te Whāinga Wai Māori):
Progress is made over the life of this Plan towards the restoration and protection of the health and wellbeing of the Waikato and Waipā River catchments in relation to nitrogen, phosphorus, sediment and microbial pathogens by the short-term numeric water quality values in Table 3.11-1 being met no later than 10 years after Chapter 3.11 of this Plan is operative.

Objective 3/Te Whāinga 3:
Waikato and Waipā communities are assisted to provide for their social, economic, spiritual and cultural wellbeing through staging the reduction of the discharges of nitrogen, phosphorus, sediment and microbial pathogens necessary to restore and protect the health and wellbeing of the Waikato and Waipā River catchments, and by the encouragement of collective community action for that purpose.

Objective 4/Te Whāinga 4:
Tangata whenua values are integrated into the management of the rivers and other water bodies within the Waikato and Waipā River catchments 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 catchments; and
b. Any impediments to the flexibility of the use of tangata whenua ancestral lands and land returned via treaty settlements are restricted to those necessary to give effect to Te Ture Whaimana o Te Awa o Waikato; 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 5/Te Whāinga 5:
Restoration and protection of the health and wellbeing of the Whangamarino Wetland, over time and in relation to nitrogen, phosphorus, sediment and microbial pathogens at the latest by 2096, consistent with its status as an outstanding waterbody with significant values, including habitat for threatened species and sensitive raised bog ecosystems.

3.11.2 Policies/Ngā Kaupapa Here

Diffuse discharges/ Ngā rukenga roha

Policy 1/Te Kaupapa Here 1:

Manage farming land uses to reduce diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens, by:

a. Requiring a general improvement in farming practice to reduce diffuse discharges of those contaminants; and
b. Focusing priority action on those farming practices that reduce those contaminant(s) set out in Table 3.11-2; and
c. Enabling, through permitted activity rules, low intensity farming and horticultural activities (not including commercial vegetable production), with low risk of diffuse discharge of contaminants to water bodies, and requiring resource consents for all other activities; and
d. Requiring a greater level of scrutiny, by resource consents, of those farming activities (including commercial vegetable production) that diffusely discharge into sub-catchments that include riverine or peat lakes identified on Map 3.11-1 in accordance with Policy 15; and
e. Requiring the timely implementation of Farm Environment Plans to reduce diffuse discharges of those contaminants.

Policy 2/Te Kaupapa Here 2:

Provide for farming activities (that require a resource consent) other than commercial vegetable production, with a Farm Environment Plan prepared in accordance with Policy 4, as follows:

a. Requiring farming activities with a Nitrogen Leaching Loss Rate within the Moderate Nitrogen Leaching Loss range set out in Schedule B Table 1 to obtain a resource consent, and to demonstrate that either the Nitrogen Leaching Loss Rate is already as low as practicable given the current land use or that the Nitrogen Leaching Loss Rate will reduce to the lowest practicable level over an appropriate specified period; and
b. Requiring farming activities with a High Nitrogen Leaching Loss Rate as set out in Schedule B Table 1 to:
    i. Make significant reductions to their Nitrogen Leaching Loss Rate; or
    ii. Demonstrate why significant reductions to their Nitrogen Leaching Loss Rate should either not be required; or
    iii. Demonstrate why significant reductions to their Nitrogen Leaching Loss Rate should only be required over an extended timeframe to provide an appropriate transition period for conversion to lower nitrogen leaching land use(s);

    having regard to:
    - The accuracy of the modelled Nitrogen Leaching Loss Rate, including whether it captures the benefits of existing contaminant mitigation steps that have been put in place;
    - The relative vulnerability of the land to nitrogen leaching, as established by an expert analysis of, among other considerations:
        - The rainfall, topography and soil characteristics of the property(s); and
        - The distance of the property(s) to surface waterways within the same groundwater sub-catchment; and
        - Subject to data availability, the depth of groundwater under the land, the chemical characteristics of that groundwater, the speed that groundwater transmits nitrate nitrogen leached below the root zone to surface waterways and the likely attenuation of nitrate nitrogen between the root zone and any surface waterway;
    - Whether the farming activities are making a significant or disproportionate contribution to nitrogen loading in the sub-catchment(s) within which the land is located and/or downstream catchments; and
    - How it is proposed to reduce the Nitrogen Leaching Loss Rate, including how quickly and to what extent it will be reduced; and
c. Generally not granting land use consent applications for changes in land use that involve a material increase in the intensity of the use of land compared to the land uses as at 22 October 2016, unless it can be demonstrated that this would result in a positive contribution to the health and wellbeing of the Waikato and Waipā river catchments in accordance with Policy 5; and
d. Generally excluding farmed cattle, horses, deer and pigs from rivers, streams, drains, wetlands, lakes and springs; and
e. Where farmed cattle, horses, deer and pigs are not excluded from rivers, streams, drains, wetlands, lakes and springs:
    i. Ensuring adverse effects of stock on waterbodies are minimised, including by the identification and management of critical source areas, ensuring that access of stock to waterbodies does not cause conspicuous pugging and exacerbated erosion; and
    ii. Imposing consent conditions to require mitigation measures to address any damage to aquatic habitat and discharge of contaminants resulting from stock access to those waterbodies; and
f. Encouraging creation of riparian buffers (with appropriate riparian vegetation where necessary) adjacent to rivers, streams, drains, wetlands, lakes and springs to reduce overland flow of contaminants and improve freshwater habitat quality.

Policy 3/Te Kaupapa Here 3:

Provide for commercial vegetable production including the flexibility to undertake crop rotations on multiple and/or changing properties as follows:

a. Enable existing commercial vegetable production described in a Farm Environment Plan prepared in accordance with Policy 4, and that reduces diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens within the baselines determined under c below, and adhere to the Farm Environment Plan and any minimum standards specified in Rule 3.11.4.5; and
b. Ensure sector-based initiatives and other mitigation measures are adopted to progressively reduce losses of nitrogen, phosphorus, sediment and microbial pathogens; and
c. Each commercial vegetable grower shall establish and demonstrate ongoing operation of commercial vegetable production within baselines that define:
    i. The maximum area of land in commercial vegetable production based on a representative sample of data for each sub-catchment from the ten years prior to 2016, allowing for the maximum area in any one year over that period in each sub-catchment; and
    ii. The Nitrogen Leaching Loss Rate associated with each commercial vegetable production rotation; and
d. Recognise the positive contribution to people and communities from commercial vegetable production consistent with Te Ture Whaimana o Te Awa o Waikato by specifying in Table 1 in Rule 3.11.4.8 the maximum area of land available in each sub-catchment to support commercial vegetable growing during the anticipated life of the plan and providing an opportunity to increase commercial vegetable growing up to those maxima through a consent process, subject to:
    i. The location being within land classified as LUC 1 and 2 using the Land Use Capability (LUC) Survey Handbook.
    ii. The location being within sub-catchments identified as appropriate for commercial vegetable growing in Table 1 in Rule 3.11.4.8.
    iii. The area utilised for commercial vegetable growing is less than the sub-catchment area limit in Table 1 in Rule 3.11.4.8 accounting for any consents that have already been granted.
    iv. Offsetting or compensation being proposed for commercial vegetable production activity in accordance with Policy 5.

Policy 4/Te Kaupapa Here 4:

Where a Farm Environment Plan is required to assist in achieving Policies 1, 2 and 3, it shall be prepared, monitored and reviewed as follows:

a. If a property is used for dairy farming, commercial vegetable production, or has a stocking rate of more than 18 stock units per hectare and/or more than 5% in arable cropping, use an appropriate decision support tool in accordance with Schedule B of this Chapter, to quantify the Nitrogen Leaching Loss Rate for the property; and
b. Identify land most vulnerable to diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens including critical source areas for overland flow of sediment, phosphorus and microbial pathogens; and
c. Take a risk-based approach to managing land use, including adaptive management, to reduce diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens; and
d. Identify suitable mitigating actions appropriate to the land, its use, risk assessment and the short-term numeric water quality values specified in Table 3.11-1 for the sub-catchment(s) within which the land is located and downstream catchments; and
e. Prioritise actions and timing of those farming practices that will reduce the contaminant(s) set out in Table 3.11-2, having regard to any relevant sub-catchment or collective management plan in terms of those priority actions; and
f. Take account of any off-property mitigation within the sub-catchment (e.g. from a sub-catchment collective approach or other Farm Environment Plans) of the effects of diffuse discharge; and
g. Set out clear, specific and time bound actions and practices; and
h. Enable Farm Environment Plans to be updated so that continuous improvement, new technologies and mitigation practices can be adopted, such that where necessary diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens further reduce to assist in meeting the objectives of this Chapter.

Policy 5/Te Kaupapa Here 5:

Provide for offsetting and compensation that better achieves the objectives of Te Ture Whaimana o Te Awa o Waikato where:

a. There is an overall reduction in the relevant sub-catchment(s) of the diffuse discharge of each of nitrogen, phosphorus, sediment and microbial pathogens from the property(s); or
b. There is a sufficient reduction in the diffuse discharge of nitrogen, phosphorus, sediment and/or microbial pathogens from the property(s) so that the positive benefits to restoration and protection of the health and wellbeing of the Waikato and Waipā Rivers demonstrably exceed the adverse effects from any increases in the diffuse discharge of any of those contaminants, provided any increases are not of a contaminant that Table 3.11-2 identifies as a priority for reduction in that sub-catchment.

Policy 6/Te Kaupapa Here 6:

Encourage sector schemes to enable greater efficiency in the preparation, implementation and monitoring of Farm Environment Plans through the provision of: education, information, coordination, technical and professional assistance for property owners, as well as monitoring and reviewing of the Farm Environment Plan so as to better achieve the objectives of this Chapter.

Policy 7/Te Kaupapa Here 7:

Generally not granting resource consents that authorise farming and commercial vegetable production activities for a duration beyond 2035 in recognition of the possibility that a replacement regional plan(s) may include new requirements for management after that date, including an allocation regime.

Policy 8/Te Kaupapa Here 8:

a. People and communities will need to collectively change practices and activities so as to contribute to achieving the short-term numeric water quality values in Table 3.11-1 for the catchments as a whole; and
b. Recognise that the changes will need to continue more than 10 years after Chapter 3.11 of this Plan is operative while minimising the adverse impacts on people and communities, enabling innovation and new practices to develop, and responding to the reasonably foreseeable effects of climate change.

Policy 9/Te Kaupapa Here 9:

Encourage collective groups of property owners and other stakeholders to work together on measures to improve water quality in their sub-catchment, thereby contributing positively to Objective 1 by providing opportunities to manage diffuse discharges from multiple properties more efficiently, including through enabling proposals that ensure:

a. Overall there is a reduction in diffuse discharges to at least the same extent that would be required if all the properties were managed individually;
b. The resource consent application responds to the water quality improvements required in each sub-catchment;
c. Where the properties are in separate ownership, conditions are imposed or a legally binding instrument is in place between the consent holder and each property, to ensure (a) above is achieved;
d. Review conditions are imposed to enable ongoing management of adverse effects.

Policy 10/Te Kaupapa Here 10:

Prepare for further diffuse discharge reductions and any future management regime (including potentially the allocation of diffuse discharges of contaminants) in subsequent regional plans by collecting information and undertaking research including, but not limited to, collecting information about current discharges, developing appropriate modelling tools to estimate contaminant discharges, and researching the spatial variability of land use, contaminant losses and the effect of contaminant discharges in different parts of the catchment, to assist in the design of any future management regime.

Point source discharges/Ngā rukenga i ngā pū tuwha

Policy 11/Te Kaupapa Here 11:

When considering resource consent applications for point source discharges of nitrogen, phosphorus, sediment and microbial pathogens to water or onto or into land in the Waikato or Waipā River catchments, subject to policies 12 and 13 and having regard to the need to achieve Objective 1, provide for the continued operation and development of regionally significant infrastructure and regionally significant industry.

Policy 12/Te Kaupapa Here 12:

a. When considering resource consent applications for point source discharges of nitrogen, phosphorus, sediment or microbial pathogens to water or onto or into land in the Waikato or Waipā River catchments, require demonstration that the proposed discharge represents the Best Practicable Option at the time resource consent is being considered, to prevent or minimise the adverse effects of the discharge.
b. Where, despite the adoption of the Best Practicable Option, there remain residual adverse effects, measures should be proposed at an alternative location(s) to the point source discharge, for the purpose of ensuring positive effects on the environment sufficient to offset or compensate for any residual adverse effects of the discharge(s) that will or may result from allowing the activity, provided that:

i. the primary discharge does not result in the discharge having either significant adverse effects on aquatic life or toxic adverse effects; and
ii. the measure relates to the contaminant(s) giving rise to the residual adverse effects; and
iii. the 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
iv. it remains in place for the duration of the adverse residual effect and is secured by consent condition or another legally binding mechanism; and

c. For the purpose of establishing if a discharge will have a residual adverse effect, relevant considerations include:
i. the extent to which any replacement discharge(s) fails to reduce the contaminant load of an existing discharge proportionate to the decrease required to achieve the short-term numeric water quality values in Table 3.11-1 or the steady progression towards the 80-year water quality attribute states in Table 3.11-1, including at downstream monitoring sites; and
ii. in respect of a new discharge, whether any new discharge will increase the load of nitrogen, phosphorus, sediment and/or microbial pathogens contaminants to either the Waikato River or Waipā River catchments; and in either case
iii. where the discharge is associated with the damming or diversion of water, whether it will exacerbate the rate or location of those contaminants that would otherwise have occurred without the damming or diversion, and if so, the extent of such increase or exacerbation.

Policy 13/Te Kaupapa Here 13:

When considering a resource consent application for point source discharges of nitrogen, phosphorus, sediment or microbial pathogens to water or onto or into land in the Waikato or Waipā River catchments, and subject to Policy 12, consider the contribution made to the nitrogen, phosphorus, sediment and microbial pathogen catchment loads in the Waikato River or Waipā River catchments and the impact of that contribution on the achievement of the short-term numeric water quality values in Table 3.11-1 and, where applicable, the steady progression towards the 80-year water quality attribute states in Table 3.11-1, taking into account the following:

a. The contribution of nitrogen, phosphorus, sediment or microbial pathogens as a proportion to the catchment load and the net change proposed in that contribution;
b. The water quality of the receiving environment and how the proposed discharge will contribute to:
i. The protection of water quality where the receiving environment is of high water quality; or
ii. The improvement in water quality in a manner proportional to the impact of the discharge where the receiving environment is less than high quality.
c. Where relevant, reduction in the discharge of nitrogen, phosphorus, sediment or microbial pathogens within the previous consent term resulting from past plant upgrades; and
d. Whether it is appropriate to stage future mitigation actions to allow investment costs to be spread over time to contribute to the achievement of the water quality attribute values and states specified above;
e. The potentially 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 and the nature of any offsetting/compensation of effects that has been proposed by the applicant in accordance with Policy 12;
f. Where existing point source discharge locations are being amalgamated, the combined effects on water quality when comparing the effects of the proposed discharge/s to the existing discharges;
g. The influence of seasonal climatic conditions and other natural processes that affect the assimilative capacity of waterbodies and resultant ability to achieve Objectives 1 and 2;
h. Any beneficial social, cultural and economic effects of the point source discharge;
i. The application of reasonable mixing (in accordance with Policy 3.2.3.8) may be acceptable as a transitional measure during the life of this Chapter;
j. Whether the activity solely transports flows from upstream across or through a dam or control structure without adding to nitrogen, phosphorus, sediment or microbial pathogens loads in the flow or exacerbating effects of those contaminants, and the practical ability to reduce contaminants in the flow.

Policy 14/Te Kaupapa Here 14:

In addition to having regard to the matters set out in Policy 1.2.4.6, when determining an appropriate duration for any consent granted for a point source discharge have regard to the following matters:

a. The matters set out in Policies 12 and 13;
b. The magnitude and significance of the investment made or proposed to be made in contaminant reduction measures and any resultant or predicted improvement in the water quality of the receiving environment;

c. The desirability of providing certainty of investment where contaminant reduction measures are proposed (including investment in treatment plant upgrades or land-based application technology); and
d. The need not to compromise a steady improvement in water quality consistent with achievement of Objective 1.

Diffuse and point source discharges/Ngā rukenga roha me ngā rukenga i ngā pū tuwha

Policy 15/ Te Kaupapa Here 15:

Contribute to restoration and protection of riverine and peat lakes by:

a. The reduction of both diffuse and point source discharges of nitrogen, phosphorus, sediment and microbial pathogens entering the catchments of those lakes consistent with achievement of the numerical water quality values for lake Freshwater Management Units in Table 3.11-1; and
b. The implementation of a tailored lake-by-lake approach, guided by existing data and information and any existing Lake Catchment Plans as well as 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 use activities within the lakes Freshwater Management Units.

Policy 16/Te Kaupapa Here 16:

Contribute to restoration and protection of the Whangamarino Wetland by the reduction of both diffuse and point source discharges of nitrogen, phosphorus, sediment or microbial pathogens entering the wetland system, to:

a. achieve the numeric water quality values and attribute states in Table 3.11-1 for Whangamarino Wetland Catchment area sub-catchments shown in Map 3.11-3;
b. assist protection of the significant values and ecosystem health of the wetland system;
c. minimise further loss of bog wetland habitat;
d. increase the availability of mahinga kai;

while taking account of the hydrological drivers that affect water quality.

Policy 17/Te Kaupapa Here 17:

Contribute to restoration and protection of the significant values and uses of wetlands other than Whangamarino, and their ecosystems by maintaining, and where degraded, improving the values of wetlands in relation to the effects of nitrogen, phosphorus, sediment or microbial pathogen discharges.

Policy 18/Te Kaupapa Here 18:

For the purposes of considering land use change applications enabling the development of tangata whenua ancestral lands, recognise and provide 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, in a way that gives effect to Te Ture Whaimana o Te Awa o Waikato.

Policy 19/Te Kaupapa Here 19:

When managing resource consent applications related to the discharge of nitrogen, phosphorus, sediment and microbial pathogens, seek opportunities to advance achievement of the objectives in Te Ture Whaimana o Te Awa o Waikato for the Waikato and Waipā Rivers, including, but not limited to:

a. Opportunities to enhance biodiversity and the functioning of ecosystems; and
b. Opportunities to enhance access and recreational values associated with the rivers.

3.11.3 Implementation methods/Ngā tikanga whakatinana

3.11.3.1 Lakes and Whangamarino Wetland/Ngā Roto me ngā Repo o Whangamarino

Waikato Regional Council, working with others, will:

a. Build on the Shallow Lakes Management Plan and existing information, data and Lake Catchment Plans by developing Lake Catchment Plans and investigating lake-specific options to improve water quality and ecosystem health, and manage pest species. In many instances, this may require an adaptive management approach.
b. Prepare and implement Lake Catchment Plans, where catchment plans do not already exist, with relevant stakeholders (including community involvement).

3.11.3.2 Sub-catchment scale planning/Te whakamāherehere mō te whānuitanga o ngā riu kautawa

Waikato Regional Council will work with relevant stakeholders to develop sub-catchment scale plans (where a catchment plan does not already exist) where it has been shown to be required. Sub-catchment scale planning will:

a. Identify the causes of current water quality decline, identify cost-effective measures to bring about reductions in contaminant discharges, and coordinate the reductions required at a property and sub-catchment scale (including recommendations for funding where there is a public benefit identified).
b. Further develop adaptive management and mitigation approaches (including the use and development of Decision Support Tools) to estimate total diffuse discharges associated with farming activities; the spatial variability of land use and diffuse losses of nitrogen, phosphorus, sediment and microbial pathogens; and the effect of diffuse discharges throughout the sub-catchment.
c. 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.
d. Assess and determine effective and efficient placement of constructed wetlands at a sub-catchment scale to improve water quality.
e. 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.
f. Integrate the regulatory requirements to fence waterways with the requirements for effective drainage scheme management.
g. Coordinate funding of mitigation work by those contributing to water quality degradation, in proportion to that contribution.
h. Utilise public funds to support edge of field mitigations where those mitigations provide significant public benefit.

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

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

a. Collecting information on nitrogen, phosphorus, sediment and microbial pathogen levels in the respective fresh water bodies in each Freshwater Management Unit from:
    i. Council's existing river monitoring network; and
    ii. Sub-catchments that are currently unrepresented in the existing monitoring network; and
    iii. Lake Freshwater Management Units.
b. Using the information collected to establish the baseline data for compiling a monitoring plan and to assess progress towards achieving the Table 3.11-1 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 that supports the management of nitrogen, phosphorus, sediment and microbial pathogens diffuse discharges at a property scale.

3.11.3.4 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 numerical water quality values of Chapter 3.11, and giving effect to Te Ture Whaimana o Te Awa o Waikato (to the extent provided for in Chapter 3.11).
b. Research and identify methods to measure actions at a sub-catchment and property level, and their contribution to reductions in the discharge of contaminants including how it will marry its Regional Ecological Monitoring of Streams (REMS) programme with the Waikato and Waipā River catchments' sub-catchment water quality monitoring programme.
c. Work with landowners and sub-catchment/collective groups to establish complementary monitoring programmes that are relevant to their operations and sub-catchments.

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 loss for properties, and nitrogen discharge data reported under Farm Environment Plans.
e. Work with industry to collate information on the functioning and success of any certified sector scheme.

3.11.3.5 Support research and dissemination of best practice guidelines to reduce diffuse discharges/Te taunaki i te rangahau 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.

3.11.3.6 Koi carp and Canada geese/ Te kāpa koi me te kuihi

Waikato Regional Council will:

a. Continue to work with, provide support to, and strongly encourage the relevant agencies (such as Department of Conservation, Fish & Game and the Ministry for Primary Industries), as well as the community and landowners, to take a coordinated approach to the management, surveillance, control and eradication, of pest species including: Koi carp, brown bullhead catfish, gambusia, rudd and tench; and any new pest species; and to control, as far as practicable, advisory animals including Canada geese. In the context of Chapter 3.11 a focus should be placed on the management and control of Koi carp and Canada geese; and
b. Through the implementation of the Regional Pest Management Plan (which describes why and how various plant and animal pests and advisory plants and animals will be controlled in the Waikato region), set out the priorities for pest fish management and advisory animals in the Region, and ensure that adequate funding is allocated for this function via the Waikato Regional Council's Long Term Plan.

3.11.4 Rules/Ngā Ture

Rule 3.11.4.1 Permitted Activity Rule – Small and very low intensity farming/Te Ture mō te Tūmahi ka Whakaaetia – Ko ngā pāmu iti me ngā pāmu kāore e pērā rawa te muia e te kararehe

The use of land for farming including any associated diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens into water or onto or into land in circumstances which may result in those contaminants entering water is a permitted activity subject to:

Conditions 1-9 below if the use of land for farming on a property is less than or equal to 20ha; or
Conditions 1-11 below if the use of land for farming on a property is greater than 20ha.

1. The property is registered with the Waikato Regional Council if required by and in conformance with Schedule A; and
2. Farming is undertaken in conformance with the minimum farming standards in Schedule C; and
3. No commercial vegetable production occurs; and
4. No feedlots or sacrifice paddocks are used on the property; and
5. No more than 5% of the land used for farming is used for cropping, including winter forage crops; and
6. The farming occurs on one property; and
7. The winter stocking rate is less than 12 stock units per hectare, but does not apply to horse (equine) farming; and
8. No stock above 400kg shall be grazed on land with a slope of 25 degrees or greater; and
9. No dairy farming occurs; and
10. Upon request, the landowner shall obtain and provide to the Waikato Regional 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 the Waikato Regional Council); and
11. i. For at least 9 months in any 12 month period, more than 75% of the stock units on the property are horses; OR
    ii. The property is used only for free range poultry.

Rule 3.11.4.2 Interim Permitted Activity Rule – Farming prior to obtaining consent/Te Ture mō te Tūmahi ka Whakaaetia mō tētehi Wā – Te mahi pāmu i mua i te whai whakaaetanga

Except as permitted by Rule 3.11.4.1 or 3.11.4.3, or as regulated by Rule 3.11.4.9, the use of land for farming, including any associated diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens into water or onto or into land in circumstances which may result in those contaminants entering water is a permitted activity until the relevant Application Date specified in Table 3.11-3, subject to the following condition:

1. Farming is undertaken in conformance with the minimum farming standards in Schedule C.

Note: Failure to comply with Schedule C will result in farming operations requiring consent immediately (and not as specified in Table 3.11-3).

Rule 3.11.4.3 Permitted Activity Rule – Low intensity farming /Te Ture mō te Tūmahi ka Whakaaetia – Te mahi pāmu kāore e pērā rawa te muia e te kararehe

Unless permitted by Rule 3.11.4.1 or regulated by Rule 3.11.4.6:

3A The use of land for farming, including any associated diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens into water or onto or into land in circumstances which may result in those contaminants entering water, where:
   i. For drystock farming the winter stocking rate is equal to or less than 18 stock units per hectare;
   ii. For all other farming, the Nitrogen Leaching Loss Rate for the property is Low in conformance with Table 1 in Schedule B;

   OR

3B The use of land for farming, including any associated diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens into water or onto or into land in circumstances which may result in those contaminants entering water, and where all of the conditions of Rule 3.11.4.1 are met except for either or both of conditions 4 and 5;

is a permitted activity. 3A and 3B are subject to the following conditions:

1. The property is registered with the Waikato Regional Council if required by and in conformance with Schedule A; and
2. Farming is undertaken in conformance with the minimum farming standards in Schedule C; and
3. Where 3A(ii) applies, a Nitrogen Leaching Loss Rate is produced for the property in conformance with Schedule B; and
4. No commercial vegetable production occurs; and
5. The use of land for farming occurs on one property; and
6. The minimum standards in Schedule D1 (Part D) are met; and
7. A Farm Environment Plan:
    a. has been prepared in conformance with Schedule D1; and
    b. shows actions and mitigations that demonstrate how the minimum standards set out in Schedule D1 will be achieved; and
    c. provides evidence to demonstrate the Nitrogen Leaching Loss Rate for the property in conformance with Schedule B where applicable; and
    d. is provided to the Waikato Regional Council within six months after this chapter becomes operative; and
8. Full electronic access to any software or system that models or records diffuse contaminant losses for the farming authorised by this rule is granted to the Waikato Regional Council, and if requested, any analysis produced by an approved software or system is provided to the Waikato Regional Council.

Rule 3.11.4.4 Controlled Activity Rule – Moderate intensity farming/Te Ture mō te Tūmahi e āta Whakahaeretia ana – Te mahi pāmu e āhua muia ana e te karaehe

Unless regulated by Rule 3.11.4.6:

4A The use of land for farming, including any associated diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens into water or onto or into land in circumstances which may result in those contaminants entering water where:
    i. For drystock farming the winter stocking rate is greater than 18 stock units per hectare;
    ii. For all other farming, the Nitrogen Leaching Loss Rate for the property is Moderate in conformance with Table 1 in Schedule B;

    OR

4B The use of land for farming, including any associated diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens into water or onto or into land in circumstances which may result in those contaminants entering water, where:
    i. For drystock farming the winter stocking rate is equal to or less than 18 stock units per hectare;
    ii. For all other farming, the Nitrogen Leaching Loss Rate for the property is Low in conformance with Table 1 in Schedule B;

    but which cannot meet the stock exclusion standards in Clauses 1-4 of Schedule C or one or more of the standards in Part D of Schedule D1;

is a controlled activity. 4A and 4B are subject to the following conditions:

1. The property is registered with the Waikato Regional Council if required by and in conformance with Schedule A; and
2. Farming is undertaken in conformance with the minimum farming standards in Schedule C except in the case of stock exclusion where a tailored solution may be approved as part of a Farm Environment Plan lodged with the resource consent application; and
3. Where 4A(ii) or 4B(ii) apply a Nitrogen Leaching Loss Rate is produced for the property in conformance with Schedule B; and
4. No commercial vegetable production occurs; and
5. The use of land for farming occurs on one property; and
6. A Farm Environment Plan:
    a. has been prepared in conformance with Schedule D2; and
    b. has been approved by a Certified Farm Environment Planner as:
        i. being in conformance with Schedule D2; and
        ii. providing evidence to demonstrate the Nitrogen Leaching Loss Rate for the property in conformance with Schedule B; and
        iii. showing actions and mitigations that demonstrate how the farming activity will achieve the goals and principles set out in Part D of Schedule D2; and

c. is provided to the Waikato Regional Council by the relevant Application Date specified in Table 3.11-3; and

7. Full electronic access to any software or system that models or records diffuse contaminant losses for the farming authorised by this rule is granted to the Waikato Regional Council, and if requested, any analysis produced by an approved software or system is provided to the Waikato Regional Council.

Waikato Regional Council reserves control over the following matters:

i. The measures to achieve the policies and objectives of Chapter 3.11 to the extent that they are relevant to the matters in ii – xi below.
ii. The content of the Farm Environment Plan.
iii. The actions and timeframes which demonstrate how the farming activity will achieve the goals and principles set out in Part D of Schedule D2.
iv. The method by which the environmental outcomes of the stock exclusion requirements in Schedule C are achieved.
v. Measures to address the effects, including cumulative effects, of diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens.
vi. In the case of the use of land for farming where the property is wholly or partly in a peat or riverine lake FMU, the effects of the activity on lake water quality.
vii. Measures to address any adverse effects on downstream drinking water supplies.
viii. The duration of the resource consent.
ix. The monitoring, record keeping, reporting and information provision requirements for the holder of the resource consent to demonstrate and/or monitor compliance with the resource consent and Farm Environment Plan.
x. The timeframe and circumstances under which the resource consent conditions may be reviewed.
xi. Procedures for reviewing, amending and re-approving the Farm Environment Plan.

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

Rule 3.11.4.5 Controlled Activity Rule – Existing commercial vegetable production/Te Ture mō te Tūmahi e āta Whakahaerehia ana – Te whakatupu huawhenua ā-arumoni kua tīmata kē

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

1. The property is registered with the Waikato Regional Council if required by and in conformance with Schedule A; and
2. A Nitrogen Leaching Loss Rate is produced for the property in conformance with Schedule B; and
3. The following information, relating to the land used by the applicant for commercial vegetable production in the period 1 July 2006 to 30 June 2016, is provided to the Waikato Regional Council at the time of the resource consent application:
   a. The total, maximum area (hectares) of land used for commercial vegetable production for any full year; and
   b. In relation to the particular year identified in a) above, the maximum areas (hectares) of land used for commercial vegetable production and their locations, per sub-catchment [refer to Map 3.11-2]; and
4. The total area of land within each sub-catchment for which consent is sought for commercial vegetable production must not exceed the maximum areas as identified in condition 3 of this rule; and
5. A Farm Environment Plan:
   a. has been prepared in conformance with Schedule D2; and
   b. has been approved by a Certified Farm Environment Planner as:
      i. being in conformance with Schedule D2; and
      ii. providing evidence to demonstrate the Nitrogen Leaching Loss Rate for the property in conformance with Schedule B; and
      iii. showing actions and mitigations that demonstrate how the farming activity will achieve the goals and principles set out in Part D of Schedule D2; and
   c. is provided to the Waikato Regional Council by the relevant Application Date specified in Table 3.11-3; and
6. Full electronic access to any software or system that models or records diffuse contaminant losses for the farming authorised by this rule is granted to the Waikato Regional Council, and if requested, any analysis produced by an approved software or system is provided to the Waikato Regional Council.

Waikato Regional Council reserves control over the following matters:

i. The achievement of the policies and objectives of Chapter 3.11 to the extent that they are relevant to the matters in ii-xi below.
ii. The content of the Farm Environment Plan.
iii. The maximum total and per-sub-catchment area of land to be used for commercial vegetable production.

iv. The actions and timeframes which demonstrate how the farming activity will achieve the goals and principles set out in Part D of Schedule D2.
v. Measures to address the effects, including cumulative effects, of diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens.
vi. Measures to address the adverse effects on downstream drinking water supplies.
vii. The duration of the resource consent.
viii. The monitoring, record keeping, reporting, contaminant accounting and information provision requirements for the holder of the resource consent to demonstrate and/or monitor compliance with the resource consent and Farm Environment Plan.
ix. The timeframe and circumstances under which the resource consent conditions may be reviewed.
x. Procedures for reviewing, amending and re-approving the Farm Environment Plan.
xi. The procedures and limitations, including Nitrogen Leaching Loss Rate, to be applied to land that leaves the commercial vegetable growing activities.

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

Rule 3.11.4.6 Restricted Discretionary Activity Rule – Farming in Whangamarino Wetland catchment/Te Ture 3.11.4.6 Te Ture mō te Tūmahi e Hāngai ana ki tā te Kaiwhakamahi e Hiahia ai, kua Rāhuitia – Te mahi pāmu i te riu o ngā repo o Whangamarino

Unless permitted by Rule 3.11.4.1 or regulated by Clauses 7A or 7B of Rule 3.11.4.7, the use of land for farming in the Whangamarino Wetland Catchment area shown on Map 3.11-3, including any associated diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens into water or onto or into land in circumstances which may result in those contaminants entering water, is a restricted discretionary activity subject to the following conditions:

1. The property is registered with the Waikato Regional Council if required by and in conformance with Schedule A; and
2. Farming is undertaken in conformance with the minimum farming standards in Schedule C except in the case of stock exclusion where a tailored solution may be approved as part of a Farm Environment Plan lodged with the resource consent application; and
3. A Nitrogen Leaching Loss Rate is produced for the property in conformance with Schedule B; and
4. The use of land for farming occurs on one property; and
5. A Farm Environment Plan:
    a. has been prepared in conformance with Schedule D2; and
    b. has been approved by a Certified Farm Environment Planner as:
        i. being in conformance with Schedule D2; and
        ii. providing evidence to demonstrate the Nitrogen Leaching Loss Rate for the property in conformance with Schedule B; and
        iii. showing actions and mitigations that demonstrate how the farming activity will achieve the goals and principles set out in Schedule D2; and
    c. is provided to the Waikato Regional Council by the relevant Application Date specified in Table 3.11-3.
6. Full electronic access to any software or system that models or records diffuse contaminant losses for the farming authorised by this rule is granted to the Waikato Regional Council, and if requested, any analysis produced by an approved software or system is provided to the Waikato Regional Council; and
7. For commercial vegetable production, in addition to the matters above, conditions 3 and 4 of Rule 3.11.4.5.

Waikato Regional Council restricts its discretion to the following matters:
i. The policies and objectives of Chapter 3.11, in particular Policy 16, to the extent that they are relevant to the matters in ii – xii below.
ii. The effects of the diffuse discharge on the water quality of the Whangamarino Wetland and Lake Waikare where applicable.
iii. The content of the Farm Environment Plan.
iv. The method by which the environmental outcomes of the stock exclusion requirements in Schedule C are achieved.
v. The actions and timeframes which demonstrate how the farming activity will achieve the goals and principles set out in Part D of Schedule D2.
vi. Measures to address the effects, including cumulative effects, of diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens.
vii. Measures to address any adverse effects on downstream drinking water supplies.
viii. The duration of the resource consent.

ix. The monitoring, record keeping, reporting and information provision requirements for the holder of the resource consent to demonstrate and/or monitor compliance with the resource consent and Farm Environment Plan.
x. The timeframe and circumstances under which the resource consent conditions may be reviewed.
xi. Procedures for reviewing, amending and re-approving the Farm Environment Plan.
xii. For commercial vegetable production, in addition to the matters above, the matters of control in Rule 3.11.4.5.

Rule 3.11.4.7 Discretionary Activity Rule – Farming in a collective, high intensity farming, and farming not otherwise authorised/Te Ture 3.11.4.7 Te Ture mō te Tūmahi e Hāngai ana ki tā te Kaiwhakamahi e Hiahia ai – Te mahi pāmu hei tōpū, te mahi pāmu e muia ana e te kararehe me te mahi pāmu kāore i whakamanahia kēhia

The use of land for farming including any associated diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens into water or onto or into land in circumstances which may result in those contaminants entering water is a discretionary activity only if one or more of the following circumstances apply:

7A The farming is on more than one property;
7B The Nitrogen Leaching Loss Rate for the property is High in conformance with Table 1 in Schedule B;
7C The farming is not regulated by any other Chapter 3.11 rule, or fails to meet the conditions of any other Chapter 3.11 rule.

Subject to the following conditions:

1. The property is registered with the Waikato Regional Council if required by and in conformance with Schedule A; and
2. Farming is undertaken in conformance with the minimum farming standards in Schedule C except in the case of stock exclusion where a tailored solution may be approved as part of a Farm Environment Plan lodged with the resource consent application; and
3. A Nitrogen Leaching Loss Rate is produced for the property in conformance with Schedule B; and
4. A Farm Environment Plan:
    a. has been prepared in conformance with Schedule D2; and
    b. has been approved by a Certified Farm Environment Planner as:
        i. being in conformance with Schedule D2; and
        ii. providing evidence to demonstrate the Nitrogen Leaching Loss Rate for the property in conformance with Schedule B; and
        iii. showing actions and mitigations that demonstrate how the farming activity will achieve the goals and principles set out in Part D of Schedule D2; and
    c. is provided to the Waikato Regional Council by the relevant Application Date specified in Table 3.11-3; and
5. Full electronic access to any software or system that models or records diffuse contaminant losses for the farming authorised by this rule is granted to the Waikato Regional Council, and if requested, any analysis produced by an approved software or system is provided to the Waikato Regional Council.

Rule 3.11.4.8 Discretionary Activity Rule – Commercial vegetable production expansion/ Te Ture 3.11.4.8 Te Ture mō te Tūmahi e Hāngai ana ki tā te Kaiwhakamahi e Hiahia ai – Te whakawhānuitanga o te whakatupu huawhenua ā-arumoni

The use of land for commercial vegetable production on land which is additional to that regulated by Rule 3.11.4.5, including any associated diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens into water or onto or into land in circumstances which may result in those contaminants entering water, is a discretionary activity subject to the following conditions:

1. The property is registered with the Waikato Regional Council if required by and in conformance with Schedule A; and
2. A Nitrogen Leaching Loss Rate is produced for the property in conformance with Schedule B; and
3. A Farm Environment Plan:
    a. has been prepared in conformance with Schedule D2; and
    b. has been approved by a Certified Farm Environment Planner as:
        i. being in conformance with Schedule D2; and
        ii. providing evidence to demonstrate the Nitrogen Leaching Loss Rate for the property in conformance with Schedule B; and

iii. showing actions and mitigations that demonstrate how the farming activity will achieve the goals and principles set out in Part D of Schedule D2; and

c. is provided to the Waikato Regional Council by the relevant Application Date specified in Table 3.11-3; and

4. Full electronic access to any software or system that models or records diffuse contaminant losses for the farming authorised by this rule is granted to the Waikato Regional Council, and if requested, any analysis produced by an approved software or system is provided to the Waikato Regional Council; and
5. The land for which consent is sought must be located entirely within the sub-catchments specified in Table 1 below; and
6. The land for which consent is sought must be entirely located on LUC 1 and/or 2 land; and
7. The total area of land for which consent is sought must not, in combination with any extant resource consents, exceed the maximum sub-catchment area limits specified in Table 1 below.

Rule 3.11.4.8 Table 1: Sub-catchments with Commercial Vegetable Production growth areas:

Sub-catchment number and name[1]	FMU[2]	Area limits of land for Commercial Vegetable Production use per sub-catchment (hectares)
29 Mangaonua	Central Waikato	96
27 Waikato at Bridge St Br	Central Waikato	219
23 Kirikiriroa	Central Waikato	4
25 Waikato at Horotiu Br	Central Waikato	21
20 Waikato at Huntly-Tainui Br	Lower Waikato	155
11 Opuatia	Lower Waikato	108
9 Waikato at Mercer Br (excluding those parts of the sub-catchment within the Maramarua River catchment on the true right bank of the Waikato River and within the Rotongaro, Te Kapa, Waiwhata and Opuatia Lake FMUs on the true left bank of the Waikato River)	Lower Waikato	1078
1 Mangatawhiri	Lower Waikato	4
7 Ohaeroa	Lower Waikato	129
4 Waikato at Tuakau Br	Lower Waikato	712
6 Waikato at Port Waikato	Lower Waikato	1020
24 Waipā at Waingaro Rd Br	Waipā	146
21 Firewood	Waipā	6

Rule 3.11.4.9 Non-Complying Activity Rule – Land use change/Te Ture 3.11.4.9 Te Ture mō te Tūmahi Kāore e Whai ana i te Ture - Te panonitanga o te whakamahinga whenua

Notwithstanding any other rule in this Plan, the following changes in the use of land are non-complying activities:

1. Any change in the use of land to commercial vegetable production that, either itself or in combination with any extant resource consents, is not regulated by Rule 3.11.4.5 and does not meet the conditions of Rule 3.11.4.8.
2. Any of the following changes in land use within a property, where the change exceeds a cumulative net total of 4.1 ha from that which was occurring at 22 October 2016:
   a. woody vegetation to farming; or
   b. any land use to dairy farming.

[1] See Map 3.11-2
[2] See Map 3.11-1

3.11.5 Schedules/Ngā Whakaritenga

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

Properties with an area greater than 4.1 hectares must be registered with the Waikato Regional Council in the following manner:

1. Registration information set out in Clause 4, and where relevant in Clause 5, below must be provided.
2. Proof of registration must be provided to the Waikato Regional Council within 7 working days of a request by Waikato Regional Council being made.
3. Registration information must be updated:
    a. Where the property changes hands, within 30 working days of the new owner taking possession of the property, or
    b. At the request of the Waikato Regional Council.
4. All owners must provide the following information:
    a. in respect of the property owner, and the person responsible for using the land (if different from the 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 and certificate(s) of title references (computer freehold registers) for all the land in the property.
    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, the annual and winter stocking rates of animals grazed on the land at the time of registration.
    g. If more than one property is farmed as part of a group, the addresses and owners of the other properties and the name of that group.
5. Properties that graze livestock must also provide a map showing the location of:
    a. Property boundaries; and
    b. Water bodies listed in Schedule C for stock exclusion within the property boundary and fences adjacent to those water bodies; and
    c. Livestock crossing points over those water bodies and a description of any livestock crossing structures.

Schedule B - Nitrogen leaching loss rate for FMUs/Te Whakaritenga B – Te pāpātanga o te rerenga o te hauota i te one ki te wai me ngā wāriu ā-ōrau o te rerenga o te hauota i te one ki te wai mō ngā FMU

A. Calculation of Nitrogen Leaching Loss Rate

Any property where the total farmed area is greater than 20 hectares, or any property that is used for commercial vegetable production, must provide a Nitrogen Leaching Loss Rate using one of the methods described below, where required to do so by any rule in Chapter 3.11.

1. A pre-assigned Nitrogen Leaching Loss Rate
   a. A pre-assigned Nitrogen Leaching Loss Rate may be used if it has been certified by a Certified Farm Nutrient Advisor as having been established in accordance with section 2 or section 3 below.
2. A Nitrogen Leaching Loss Rate established using Overseer
   a. The Nitrogen Leaching Loss Rate must be determined by a Certified Farm Nutrient Advisor based on the amount of nitrogen being leached from the property during the most recent farming year (using the most recent version of Overseer), or any full year from the 2015/16 year, to the 2019/20 year (using the version of Overseer that was the most recent available in the relevant year), except that:
      i. for commercial vegetable production the Nitrogen Leaching Loss Rate shall be based on the highest modelled annual nitrogen leaching loss that occurred during a single year (being 12 consecutive months) within the reference period from 1 July 2006 to 30 June 2016; or
      ii. for any land use approved under Rule 3.11.4.9, the Nitrogen Leaching Loss Rate shall be determined through the resource consent process.
   b. The Nitrogen Leaching Loss Rate data shall comprise the data used in Overseer to calculate the Nitrogen Leaching Loss Rate.
   c. The analysis (inputs and outputs) must be published to Waikato Regional Council:
      i. at the time a resource consent application is lodged; or
      ii. within 30 days of a written request made by the Waikato Regional Council, whichever is the earlier.
   d. The following records (where relevant to the calculation and auditing of the Nitrogen Leaching Loss Rate) must be retained for the life of the Regional Plan and/or relevant consent, whichever is longer, and provided to Waikato Regional Council at its request:
      i. Records of stock numbers and stock classes, births and deaths, stock movements on and off the property, grazing records and transport records;
      ii. Total annual milk solids as stated in the milk supply statement;
      iii. Records of fertiliser type and amount, including annual accounts, and any records of fertiliser application rates and placement;
      iv. Quantity and type of feed supplements 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 property (area and yield), quantities of each crop consumed on the property, and quantities sold off farm; and
      vii. Horticulture crop diaries and New Zealand Good Agricultural Practice (NZGAP) records; and
      viii. The Nitrogen Leaching Loss Rate data as defined in Clause b above; 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: *For the avoidance of doubt, financial information contained within the above records may be redacted (blacked out) prior to it being provided to Waikato Regional Council.*

3. A Nitrogen Leaching Loss Rate established via an alternative, approved model.
   a. Alternative models may be used provided a suitably qualified and experienced nutrient loss modeller can demonstrate and has certified to WRC that the model:
      - has been developed through a robust review and quality control process;
      - has appropriate supporting documentation, user guides and input standards; and
      - can produce comparable modelling outputs to those of Overseer.
   b. Prior to the use of any alternative model, documentation of its suitability in accordance with (a) must be provided to the Waikato Regional Council.
   c. The Nitrogen Leaching Loss Rate must be determined by a Certified Farm Nutrient Advisor based on the amount of nitrogen being leached from the property during the most recent farming year, or any full year from the 2015/16 year, except that:

i. for commercial vegetable production the Nitrogen Leaching Loss Rate shall be based on the highest modelled annual nitrogen leaching loss that occurred during a single year (being 12 consecutive months) within the reference period from 1 July 2006 to 30 June 2016; or
ii. for any land use approved under Rule 3.11.4.9, the Nitrogen Leaching Loss Rate shall be determined through the resource consent process.

d. The Nitrogen Leaching Loss Rate data shall comprise the data used in any approved model to calculate the Nitrogen Leaching Loss Rate and will conform to the data input standards that form part of the approved model.
e. The analysis (inputs and outputs) must be published to Waikato Regional Council:
   i. at the time a resource consent application is lodged; or
   ii. within 30 days of a written request made by the Waikato Regional Council, whichever is the earlier.
f. Records relevant to the calculation and compliance auditing of the Nitrogen Leaching Loss Rate must be retained for the life of the Regional Plan and/or relevant consent, whichever is longer, and provided to Waikato Regional Council at its request.

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

B. Table 1: Nitrogen Leaching Loss Rate levels:

Freshwater Management Unit[3]	Low (kgN/ha/year)	Moderate (kgN/ha/year)	High (kgN/ha/year)
Lower Waikato River	≤ 21	>21 and ≤ 29	> 29
Middle Waikato River	≤ 21	>21 and ≤33	> 33
Upper Waikato River	≤ 31	>31 and ≤ 57	> 57
Waipā River	≤ 30	> 30 and ≤43	> 43

Note:
≤ denotes 'less than or equal to'
> denotes 'greater than'

[3] See Map 3.11-1

Schedule C - Minimum farming standards/Te Whakaritenga C – Te Pae Raro o Ngā Taumata Mahi Pāmu

Stock exclusion

Notwithstanding any other requirements of this Plan, and except as provided by Exclusions I. and II., farmed cattle, horses, deer and pigs must be excluded from the water bodies listed in 5. below as follows:

1. The water bodies on land:
   a. with a slope of up to 15 degrees; or
   b. with a slope over 15 degrees where in any paddock adjoining the water body, the number of stock units exceeds 18 per grazed hectare at any time;

   must be fenced to exclude farmed 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.*

2. New temporary, permanent or virtual fences installed after this chapter becomes operative must be located to ensure farmed 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:
   a. 3 metres from the edge of any wetlands listed in Table 3.7.7 of the Waikato Regional Plan; and
   b. 3 metres from the outer edge of the bed for any other waterbodies; and
   c. 1 metre from the edge of a drain, except for drains where the bank-to-bank width is less than 2 metres in which case no setback from the edge of the drain is required.

3. Farmed cattle, horses, deer and pigs must not enter onto or pass across the bed of the water body, except when using a livestock crossing structure or when they are being supervised and actively driven across a water body, at a location identified for this purpose in a Farm Environment Plan, in one continuous movement.
   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.*

4. For farming that is permitted under Rules 3.11.4.1, 3.11.4.2 and 3.11.4.3, Clauses 1 and 2 above must be complied with:
   a. within 2 years after this chapter becomes operative; or
   b. in sub-catchments identified as a priority for *E. coli* in Table 3.11-2, within 1 year after this chapter becomes operative.

5. Water bodies from which cattle, horses, deer and pigs must be excluded:
   a. The bed of a river (including any spring, stream and modified river or stream), or artificial watercourse that is permanently or intermittently flowing; and
   b. The bed of any lake; and
   c. Any wetland, including a constructed wetland, greater than 50m^2.

Exclusions:

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

I. Where the entry onto or passing across the bed of the water body is by horses that are being ridden or led.
II. Deer or pig wallows in constructed ponds or constructed wetlands that are located at least 10 metres away from the bed of a water body and which are not connected by an overland flow path to a water body.

For the purposes of Clause 5, an intermittently flowing river or artificial watercourse is one which is not permanently flowing and meets at least three of the following criteria:

a. it has natural pools;
b. it has a well-defined channel, such that the bed and banks can be distinguished;
c. it contains surface water more than 48 hours after a rain event which results in stream flow;
d. rooted terrestrial vegetation is not established across the entire cross-sectional width of the channel;
e. organic debris resulting from flood can be seen on the floodplain; or
f. there is evidence of substrate sorting process, including scour and deposition.

Fertiliser Application

6. Nitrogenous fertiliser is not applied at rates greater than 30kgN/ha per dressing.
7. No nitrogenous fertiliser is applied during the months of June and July in any year unless the temperature is tested and found to be greater than 10 degrees Celsius within the root zone.

Exclusions:
Clauses 6 and 7 do not apply to commercial vegetable production.

Sacrifice paddocks and winter forage crop grazing

8. When any land adjacent to a Clause 5 waterbody is being utilised for the grazing of a winter forage crop (from 1 June to 1 September) or as a sacrifice paddock, an un-grazed vegetated buffer at least 10 metres in width measured from the edge of the waterbody shall be maintained.
9. No cattle older than 2 years or greater than 400kg lwt are grazed on forage crops on LUC class 6e, 7 or 8 land from 1 June to 1 September.

Cultivation

10. No cultivation shall occur within 5 metres of any waterbody described in Clause 5.

Schedule D1 - Requirements for Farm Environment Plans for farming under Rule 3.11.4.3/Te Whakaritenga D1 – Ngā here o ngā Mahere Taiao ā-Pāmu mō te mahi pāmu i raro i te Ture 3.11.4.3

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

***Notes**:*
An FEP may be prepared by the landowner, or by any other person on behalf of the landowner, including via a certified sector scheme.

An FEP under this schedule does not have to be certified by a Certified Farm Environment Planner (CFEP).

PART A – PROVISION OF FARM ENVIRONMENT PLAN
An FEP must be submitted to Waikato Regional Council using either:
1. A council digital FEP tool that includes the matters set out in Part C below to the extent relevant; OR
2. An industry digital FEP tool, capable of recording information consistent with the council data exchange specifications that includes the matters set out in Part C below to the extent relevant.

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

PART B – FARM ENVIRONMENT PLAN PURPOSE
The purpose of an FEP is to demonstrate compliance with the minimum standards set out in Part D below, including the identification and recording of any specific, time bound actions and mitigations necessary.

PART C – FARM ENVIRONMENT PLAN CONTENT
The FEP shall contain as a minimum:
1. The following details that describe the land being farmed:
    a. Full name, postal and physical address and contact details (including email address and telephone number) of the person responsible for farming on the land;
    b. Legal description of the land being farmed which is the subject of the FEP
        i. The ownership of each parcel of land if different from the person responsible for farming on the land;
        ii. The legal description of each parcel of land;
        iii. Any relevant farm identifiers such as dairy supply number, Agribase identification number, and valuation reference.
    c. Identification of the sub-catchment within which the land is being farmed.

2. Description of whole farm management practices and general requirements:
    a. Identification and description of the key characteristics of the farm system including all inputs, outputs and management practices.

3. A map(s) or aerial photo at a scale that clearly shows:
    a. The property boundaries of the land being farmed;
    b. Land Use Capability (LUC) classes;
    c. The sub-catchment(s) that the property or land being farmed is/are within, and their location in the sub-catchment;
    d. The boundaries of the main land management units or land uses on the land being farmed;
    e. The location (and for named waterbodies, the names) of any permanently or intermittently flowing waterbodies on the property including rivers, streams, drains, wetlands, lakes and springs, specifically identifying any waterbodies that meet the criteria for stock exclusion in Schedule C;
    f. The location of riparian vegetation and fences (or other stock proof barriers adjacent to Schedule C water bodies);
    g. The location of any stock crossing points or structures on any Schedule C water bodies where stock have access;
    h. The location of any critical source areas and hotspots for contaminant loss to groundwater or surface water; and
    i. The location(s) of described actions and practices to be undertaken.

4. Confirmation that each of the following minimum standards in Part D is met, including the identification and recording of any specific, time bound actions and mitigations necessary.

5. The evidence to demonstrate the Nitrogen Leaching Loss Rate for the farm in conformance with Schedule B where applicable.

PART D – STANDARDS

1. Nutrient management

a. Monitor soil phosphorus (P) levels and maintain them at agronomic optimum as set out in the Code of Practice for Nutrient Management and the relevant sector specific on-farm practice booklet.
Note: For the purpose of this schedule, the Code of Practice for Nutrient Management means: Code of Practice for Nutrient Management (with Emphasis on Fertiliser Use), Fertiliser Association of New Zealand, 2013. It can be found at http://www.fertiliser.org.nz/Site/code-of-practice/. The sector specific on-farm booklets are: Fertiliser Use on New Zealand Sheep and Beef Farms, Fertiliser Associate of New Zealand, 2018; Fertiliser Use on New Zealand Dairy Farms, Fertiliser Association of New Zealand 2016; Managing Soil Fertility on Cropping Farms, New Zealand Fertiliser Manufacturers' Research Association (NZFMRA) 2012. They can be found at http://www.fertiliser.org.nz/Site/resources/booklets.aspx.

b. Where soil P levels are above optimum there will be a managed reduction plan to reach the optimum levels as set out in the relevant Code of Practice for Nutrient Management sector specific on-farm practice booklet (see reference above).

c. Nitrogen (N) fertiliser is applied to pasture in response to a future feed deficit identified using a formal feed budgeting tool that documents the method of determining fertiliser need.
Note: a 'future feed deficit' occurs when the projected pasture growth is insufficient to feed the livestock carried on the property over the projection period.

d. Nitrogen fertiliser application rates to pasture are no greater than 30kg of N per hectare per dressing.

e. Nitrogen fertiliser is applied to crops in accordance with the Code of Practice for Nutrient Management. Where a relevant industry crop model is used to support the decision-making process, the practice will be consistent with the guidance of the Code of Practice for Nutrient Management and the decision process will be documented with records retained for 3 years.

f. No nitrogenous fertiliser is applied during the months of June and July in any year unless the temperature is tested and found to be greater than 10 degrees Celsius within the root zone.

g. Stored fertiliser is covered or roofed with impermeable material. The storage area will be walled or bunded so no contaminated runoff or leaching from the storage site occurs.

h. Equipment for spreading fertiliser is calibrated at least annually in conformance with manufacturers' recommendations or in the absence of any manufacturers' recommendation, in accordance with any industry best practice and a record kept of that calibration process.

i. Contractors used for fertiliser spreading are Spreadmark accredited.
Note: Spreadmark accreditation is an industry quality assurance mechanism. Details can be found at https://fertqual.co.nz/understanding-the-marks/spreadmark/

2. Farming in accordance with the nitrogen management requirements

a. A whole farm risk assessment, using a tool or model approved by a person who the Waikato Regional Council is satisfied is suitably qualified shall be carried out as part of the FEP development process. Key farm data will be entered into the same approved tool or model annually so as to demonstrate that whole farm N loss / risk ratings have not increased over the previous year.

b. Annual purchased N surplus shall not exceed 150kg N/ha/yr.
Note: 'purchased N surplus' is calculated as the difference between the N brought onto a farm in fertiliser and imported animal feed, less the amount of N exported from the farm in product. It is to be calculated within a year of the development of the FEP and annually thereafter, using the online calculator located on the Waikato Regional Council website or, alternatively, it is an automated output of the Fonterra Nitrogen Risk Scorecard.

3. Waterbodies management

a. Stock access to waterbodies is managed in conformance with Schedule C.

4. Land and soil

a. Actions to minimise sediment loss from critical source areas are undertaken as soon as possible in accordance with a plan which prioritises those which are near Schedule C Clause 5 waterbodies.

b. On land of LUC class 6e, 7 or 8 no cattle older than 2 years or greater than 400kg lwt are grazed from 1 June to 1 September.

c. Farm scale erosion risks (type of erosion occurring / areas of the property at risk / specific location of major erosion sites) are mapped.

5. Winter grazing of forage crops

a. No cattle older than 2 years or greater than 400kg lwt are grazed on forage crops on LUC class 6e, 7 or 8 land from 1 June to 1 September.

b. No winter grazing of forage crops occurs on LUC Class 6e, 7 or 8 land from 1 June to 1 September where the number of cattle grazed exceeds 30 in an individually-fenced area.

c. When any land adjacent to a Schedule C Clause 5 waterbody is being utilised for the grazing of a winter forage crop (from 1 June to 1 September) or as a sacrifice paddock, an un-grazed vegetated buffer at least 10 metres from the edge of the waterbody shall be maintained.
d. Break feeding is managed so grazing occurs progressively downhill from the top of the slope to the bottom of the slope.
e. Ephemeral waterbodies that are not permanently fenced that have water in them during grazing are temporarily fenced to exclude stock.

6. Races, laneways, bridges and other infrastructure

a. New races, laneways, culverts and bridges must be designed (including, in the case of races and laneways, through surface contouring and surface drainage channels) and maintained to prevent ponding and to direct runoff to vegetated areas. Direct runoff to surface water or to intermittent flow paths must not occur.
Note: direct runoff occurs where there is no filtering effect as a result of contact with vegetation.
b. Existing races, laneways, culverts and bridges which were established before this chapter becomes operative shall meet standard 6(a) within three years after this chapter becomes operative.
c. New gateways, water troughs, self-feeding areas, stock camps, wallows and other sources of sediment, nutrient and microbial loss are located to minimise the risks to surface water quality.
d. Existing gateways, water troughs, self-feeding areas, stock camps, wallows and other sources of sediment, nutrient and microbial loss are re-located to minimise the risks to surface water quality within three years after this chapter becomes operative.

7. Cultivation

a. No cultivation of LUC class 6e, 7 or 8 land, or of any land where slope exceeds 20 degrees.
b. Cultivation does not occur within any critical source areas.

8. Effluent management

a. Dairy effluent storage consistent with a 90% (or greater) conformance with the Dairy Effluent Storage Calculator (DESC) is in place at the date that the FEP is required.
A guide to using the Dairy Effluent Storage Calculator (DESC); Step by step instructions on how to calculate storage requirements, DairyNZ 2015.
https://www.dairynz.co.nz/media/3223285/Using_the_Dairy_Effluent_Storage_Calculator_DNZ40_114.pdf
b. Effluent ponds are managed to ensure there is a minimum of 75% working volume available between 1 March and 1 May each year.
c. The effluent block is sized to ensure nitrogen applications from applied effluent are less than 150kgN/ha/year.
d. The effluent system is designed and operated to ensure that the conditions of Rule 3.5.5.1 and Rule 3.5.5.2 are met at all times, unless a specific consent has been sought under Rules 3.5.5.3 to 3.5.5.5 to depart from the standards in Rule 3.5.5.1 and Rule 3.5.5.2 in which case the conditions of that consent shall be met at all times.
e. Yard areas (drystock and dairy) to be managed to ensure runoff to water does not occur. Where yards are sealed and washed down effluent must be collected into an effluent system and managed as set out in a) to d) above.
f. Major incident risks (e.g. spillages or other unauthorised discharges) are identified and emergency procedures are in place.
g. Effluent system maintenance and monitoring is carried out on a regular basis.
h. All effluent applications are recorded – location, duration, application rate, and where relevant identity of contract spreader.

9. Irrigation

a. Irrigation scheduling – soil moisture tapes, soil moisture probes and/or a soil moisture budget are used to inform irrigation decisions.
b. A deficit irrigation system is operated. Fixed depth and return irrigation systems must be replaced with a deficit irrigation approach within 3 years of the date that the FEP is required.
c. An assessment of the irrigation system must be undertaken every second year to determine application depths and uniformity. Where test results fall outside of manufacturers' specifications for the system an action must be included to address this within 12 months.

10. Record Keeping

a. Accurate and auditable records of annual farm inputs, outputs and management practices are maintained.
b. Information described in a) above is provided to the Waikato Regional Council on request.

PART E – REVIEWING A FARM ENVIRONMENT PLAN

An FEP shall be reviewed by a Certified Farm Environment Planner who holds a reviewing endorsement (issued by Waikato Regional Council), as follows:

a. Within 12 months of the date that the FEP is required and thereafter at intervals of no more than 3 years;

b. An FEP shall also be reviewed in the event of any material increase in the intensity of farming.

The purpose of the review is to provide an expert opinion as to whether the farming activities on the property are being undertaken in a manner that meets the Part D minimum standards. The results of the review shall be provided to the Waikato Regional Council within 20 working days of the review date.

PART F – AMENDING A FARM ENVIRONMENT PLAN

Changes can be made to the FEP without triggering the need for review by a CFEP, provided:

a. The amended FEP continues to comply with the requirements of this schedule
b. The change to the FEP does not contravene any mandatory requirement of any resource consent held in respect of the property, or any requirement of the Regional Plan that is not already authorised;
c. 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.

Schedule D2 - Requirements for Farm Environment Plans for farming that requires consent/Te Whakaritenga D2 – Ngā here mō ngā Mahere Taiao ā-Pāmu mō te mahi pāmu me mātua whai whakaaetanga

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

Notes:
An FEP may be prepared by the landowner, or by any other person on behalf of the landowner, including via a certified sector scheme.

An FEP under this schedule must be certified by a Certified Farm Environment Planner (CFEP).

PART A – PROVISION OF FARM ENVIRONMENT PLAN
An FEP must be submitted to Waikato Regional Council using either:
1. A council digital FEP tool including the matters set out in Part B below to the extent relevant, with maps and data provided as spatial GIS layers; OR
2. An industry digital FEP tool that:
    a. complies with the council's data exchange specifications; and
    b. includes all the matters set out in part C - E below to the extent relevant; and
    c. includes maps and data provided as spatial GIS layers; and
    d. has been approved by the Chief Executive of Waikato Regional Council as meeting the criteria in (a) – (c) above.

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

PART B – FARM ENVIRONMENT PLAN PURPOSE
The purpose of an FEP is:
1. To assess whether current farming activities are consistent with the goals and principles set out in Part D of this schedule; and
2. Where appropriate, identify and record the specific, time bound actions and mitigations that will be adopted to ensure the farming activities are consistent with the goals and principles set out in Part D of this schedule, that will result in the greatest reduction in diffuse discharges as practicable.

PART C – FARM ENVIRONMENT PLAN CONTENT
The FEP shall contain as a minimum:
1. The following details that describe the land being farmed:
    a. Full name, postal and physical address and contact details (including email addresses and telephone numbers) of the person responsible for farming on the land;
    b. Legal description of the land being farmed which is the subject of the FEP
        i. The ownership of each parcel of land if different from the person responsible for farming on the land;
        ii. The legal description of each parcel of land;
        iii. Any relevant farm identifiers such as dairy supply number, Agribase identification number, and valuation reference;
    c. Identification of the sub-catchment(s) within which the land is being farmed.

2. A map(s) or aerial photo at a scale that clearly shows:
    a. The property boundaries of the land being farmed;
    b. Land Use Capability (LUC) classes;
    c. The sub-catchment(s) that the property or land being farmed is/are within, and their location in the sub-catchment;
    d. The boundaries of the main land management units or land uses on the land being farmed;
    e. The location (and for named waterbodies, the names) of any permanently or intermittently flowing waterbodies on the property including rivers, streams, drains, wetlands, lakes and springs, and specifically identifying any waterbodies that meet the criteria for stock exclusion in Schedule C;
    f. The location of riparian vegetation and fences (or other stock proof barriers adjacent to Schedule C water bodies);
    g. The location of any stock crossing points or structures on any Schedule C water bodies where stock have access;
    h. The location of any critical source areas and hotspots for contaminant loss to groundwater or surface water; and
    i. The location(s) of the actions and practices that will be adopted to ensure farming activities are consistent with the goals and principles listed in Part D.

3. The FEP shall include:
    a. An assessment, in sufficient detail to reflect the scale of environmental risk, of whether farming practices are consistent with each goal and principle in Part D below; and
    b. A defined and auditable description of those farming practices that will continue to be undertaken in a manner consistent with the goals and principles;
    c. A description of those farming practices that are not consistent with the goals or principles, and a defined and auditable description of the specific, time-bound actions and practices that will be adopted to ensure the farming activities are consistent with the goals and principles;
    d. The evidence to demonstrate the Nitrogen Leaching Loss Rate for the farm in conformance with Schedule B;
    e. The records and evidence that must be kept that demonstrate performance and the achievement of a goal or principle listed in Part D.

    Note: For b) and c), identified actions and practices may include adherence to any specific and relevant industry codes of practice.

PART D – Goals and Principles

Goal 1 – Whole Farm

To manage farming activities in a way that minimises the loss of contaminants that potentially affect water quality, from the farm.

Principles

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

Goal 2 – Nutrient Management

To minimise nutrient losses to water and avoid inefficient nutrient use.

Principles

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

Goal 3 – Nutrient Loss Reduction

To farm in accordance with the nitrogen management requirements of Chapter 3.11 or any requirement specified in a resource consent.

Principle

9. a. Where land is used for farming (except for commercial vegetable production) to farm in a manner that achieves the nutrient loss reductions required in Policy 2 of Chapter 3.11; or
    b. Where land is used for commercial vegetable production, to farm in a manner that achieves the nutrient loss reductions required in Policy 3 of Chapter 3.11.

Goal 4 – Waterways

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

Principles

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

Goal 5 – Stock exclusion

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

Principles

12. Exclude stock in a manner consistent with the requirements in Schedule C; or

13. Achieve the intended environmental outcomes of Schedule C through an alternative approach.

Goal 6 – Land and Soil
To minimise contaminant losses to waterways from soil disturbance and erosion.

Principles

14. Minimise periods of exposed soil between crops/pasture and adopt measures to minimise erosion, overland flow and leaching.
15. Minimise soil losses by either retiring erosion prone land, and in particular LUC classes 6e, 7 and 8, or by adopting appropriate soil conservation measures and practices.
16. Select paddocks for growing crops and intensive grazing which minimise possible nitrogen and phosphorus, faecal, and sediment loss from critical source areas and avoid exacerbating erosion.
17. Manage grazing and crops to minimise losses from critical source areas.
18. Maintain or improve the physical and biological condition of soils in order to minimise the movement of sediment, phosphorus and other contaminants into waterways.

Goal 7 – Effluent
To minimise contaminant losses to waterways from farm animal effluent.

Principles

19. Ensure the effluent system meets the industry-specific Code of Practice.
20. Have sufficient storage available for farm animal effluent and wastewater and actively manage effluent storage levels to ensure no discharge of contaminants to waterways at all times.
21. Ensure equipment for spreading effluent and other organic manures is well maintained and calibrated.
22. Apply effluent to pasture and crops at depths, rates and times to match plant requirements and soil water holding capacity without pooling or running off.

Goal 8 – Water and Irrigation
To operate irrigation systems in a way that minimises contaminant losses from irrigation to surface water or groundwater.

Principle

23. Manage the amount and timing of irrigation inputs to meet plant demands and minimise risk of leaching and runoff.

PART E – FARM ENVIRONMENT PLAN REVIEW REQUIREMENTS
The FEP shall be reviewed by a Certified Farm Environment Planner for consistency with this schedule:

1. Within 12 months of the granting of the consent application; and
2. In accordance with the review intervals set out in the conditions of the resource consent.

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

The review shall be undertaken by re-assessing the FEP in accordance with the requirements set out in this schedule.

The results of the review shall be provided to the Waikato Regional Council, within 20 working days of the review due date.

PART F – AMENDING A FARM ENVIRONMENT PLAN
Unless otherwise required by the Waikato Regional Council in accordance with any conditions of the resource consent, changes can be made to the FEP without triggering the need for review by a CFEP, provided:

1. The farming activity and FEP remain consistent with Parts B, C and D 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.

Schedule E - Certification of sector schemes/Te Whakaritenga E – Te Whakamananga o ngā Kaupapa ā-Rāngai

The purpose of this schedule is to set out the minimum standards for certified sector schemes.

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 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 of the Waikato Regional Council subject to the Chief Executive being satisfied that the scheme will meet the standards set out in sections A-D below.

A. Governance and management

Applications must include:

1. A description of the governance arrangements of the scheme;
2. The contractual arrangements between the scheme and its members;
3. A description of the process for gaining and ceasing membership;
4. A description of the scheme area, including land uses, key environmental issues, property boundaries and ownership details of members' properties;
5. A procedure for keeping records of the matters in (4) above and advising Waikato Regional Council 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 B 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 D1 or D2, 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 the performance of the scheme and any personnel employed by or otherwise contracted to the scheme to prepare, certify, and audit the implementation of Farm Environment Plans;
2. A statement of how audit results will be shared with the scheme's members and the wider community;

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

3.11.6 List of tables and maps/Te rārangi o ngā ripanga me ngā mahere

Table 3.11-1: Short-term water quality attribute states and 80-year attribute states for the Waikato and Waipā River catchments/Te Ripanga 3.11-1: Ngā āhuatanga ā-kounga wai o ngā riu o ngā awa o Waikato me Waipā i ngā taupoto, i ngā tau e 80 anō hoki

Table 3.11-1(a) – *E. coli* and Clarity Attribute States
Table 3.11-1(b) – Dissolved Nitrogen and Phosphorus Attribute States
Table 3.11-1(c) – Chlorophyll, Total Nitrogen and Total Phosphorus Attribute States
Table 3.11-1(d) – Dune, Riverine, Volcanic and Peat Lakes Freshwater Management Units

Table 3.11-2: Prioritisation of contaminants in each sub-catchment (as noted under Policy 1)/Te Ripanga 3.11-2: Te whakamātāmuatanga o ngā tāhawahawatanga i roto i ia riu kautawa (e rārangi ana i raro i te Kaupapa Here 1)

Table 3.11-3: Sub-catchment Application Date/Te Ripanga 3.11-3: Te Rā Tono o te riu kautawa

Map 3.11-1: Map of the Waikato and Waipā River catchments, showing Freshwater Management Units/Te Mahere 3.11-1: Te mahere o ngā riu o ngā awa o Waikato me Waipā e whakaatu ana i ngā Wae Whakahaere Wai Māori.

Map 3.11-2: Map of the Waikato and Waipā River catchments, showing sub-catchments/Te Mahere 3.11-2: Te mahere o ngā riu o ngā awa o Waikato me Waipā e whakaatu ana i ngā riu kautawa.

Map 3.11-3: Map of Whangamarino Wetland Catchment/Te Mahere 3.11-3: Te mahere o te Riu o ngā Repo o Whangamarino.

Table 3.11-1: Short-term water quality attribute states and 80-year attribute states for the Waikato and Waipā River catchments/ Te Ripanga 3.11-1: Ngā āhuatanga ā-kounga wai o ngā riu o ngā awa o Waikato me Waipā i ngā taupoto, i ngā tau e 80 anō hoki.

Tables 3.11-1(a), (b), (c) and (d) set out short-term water quality attribute states and 80-year water quality attribute states for the Waikato and Waipā River catchments.

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

Explanatory note to Table 3.11-1

The tables set out the concentrations (all attributes except clarity) or visibility distance (clarity attribute) to be maintained or achieved by actions taken in the short-term and over 80-years for rivers and tributaries, and at 80-years for lakes FMUs. Where water quality is currently high (based on 2010-2014 monitoring data), the short-term attribute states and 80-year attribute states 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 attribute states 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 mg NO_3-N/L. The short-term attribute state and 80-year attribute state are set at 0.740 mg NO_3-N/L to reflect that there is to be no decline in water quality
- the current state value for one of the four measures of *E. coli*, namely the 95th percentile, is 696 *E. coli*/100ml. The 80-year attribute state is set at 540 *E. coli*/100ml and the short-term attribute state is set at 20% of the difference between the current state value and the 80 year attribute state (i.e. 665 *E. coli*/100ml).

The achievement of the attribute states 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 states 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).

"Current" in the tables below refers to the water quality statistics for the 2010-2014 period (except for *E. coli*, where the period is 2009-2014).

Table 3.11-1(a) – *E. coli* and Clarity Attribute States

Sub-Catchment[4] (identifying number)	Median *E. coli* (cfu/100 mL)			95th%ile *E. coli* (cfu/100 mL)			*E. coli*>540cfu/100 mL (%exceedances)			*E. coli*>260cfu/100 mL (%exceedances)			10th%ile clarity (m)		
	Current	Short	80-year	Current	Short	80-year	Current	Short	80-year	Current	Short	80-year	Current[5]	Short	80-year
Upper Waikato FMU															
Waikato at Ohaaki (73)	14	14	14	80	80	80	0	0	0	0	0	0	2.66 (A)	2.67	2.7
Waikato at Ohakuri (66)	2	2	2	16	16	16	0	0	0	0	0	0	1.30 (C)	1.48	2.2
Waikato at Whakamaru (67)	8	8	8	60	60	60	0	0	0	2	2	2	1.16 (C)	1.37	2.2
Waikato at Waipāpa (64)	8	8	8	140	140	140	0	0	0	2	2	2	1.16 (C)	1.37	2.2
Pueto (74)	21	21	21	92	92	92	0	0	0	0	0	0	0.91 (D)	0.93	1.0
Torepatutahi (72)	54	54	54	215	215	215	0	0	0	4	4	4			
Waiotapu at Homestead (65)	110	110	110	280	280	280	0	0	0	9	9	9			
Mangakara (69)	140	138	130	1700	1468	540	13	11	5	26	25	20	0.52 (D)	0.62	1.0
Kawaunui (62)	200	186	130	2535	2136	540	18	15	5	33	30	20	0.67 (D)	0.74	1.0
Waiotapu at Campbell (58)	2	2	2	18	18	18	0	0	0	0	0	0	0.92 (D)	0.94	1.0
Otamakokore (59)	220	202	130	696	665	540	8	7	5	31	29	20	0.76 (D)	0.81	1.0
Whirinaki (56)	16	16	16	98	98	98	0	0	0	0	0	0			
Tahunaatara (54)	110	110	110	810	756	540	10	9	5	13	13	13	0.81 (D)	0.85	1.0
Mangaharakeke (57)	170	162	130	700	668	540	10	9	5	26	25	20	0.76 (D)	0.81	1.0
Waipāpa (70)	100	100	100	1215	1080	540	5	5	5	10	10	10	0.68 (D)	0.74	1.0
Mangakino (71)	40	40	40	250	250	251	0	0	0	4	4	4	0.83 (D)	0.86	1.0
Whakauru (49)	480	410	130	2280	1932	540	42	35	5	87	74	20	0.51 (D)	0.61	1.0
Mangamingi (48)	580	490	130	2330	1972	540	51	42	5	79	67	20	0.51 (D)	0.61	1.0
Pokaiwhenua (45)	150	146	130	1455	1272	540	13	11	5	23	22	20	0.72 (D)	0.78	1.0
Little Waipā (44)	110	110	110	1470	1284	540	8	7	5	21	21	20	0.80 (D)	0.84	1.0
Middle Waikato FMU															
Waikato at Narrows (33)	39	39	39	265	265	265	2	2	2	5	5	5	0.96 (D)	1.09	1.6
Waikato at Horotiu (25)	90	90	90	650	628	540	5	5	5	10	10	10	0.85 (D)	1.00	1.6
Karapiro (32)	295	262	130	4960	4076	540	26	22	5	53	46	20	0.33 (E)	0.46	1.0
Mangawhero (35)	590	498	130	3185	2656	540	51	42	5	89	75	20	0.15 (E)	0.32	1.0
Mangaonua (29)	1500	1226	130	7020	5724	540	87	71	5	97	82	20	0.46 (E)	0.57	1.0
Mangaone (31)	800	666	130	2220	1884	540	71	58	5	92	78	20	0.54 (D)	0.63	1.0
Mangakotukutuku (30)	500	426	130	13025	10528	540	46	38	5	95	80	20	0.23 (E)	0.38	1.0
Waitawhiriwhiri (28)	605	510	130	6520	5324	540	55	45	5	87	74	20	0.24 (E)	0.39	1.0
Kirikiriroa (23)	570	482	130	3620	3004	540	53	43	5	87	74	20	0.23 (E)	0.38	1.0
Lower Waikato FMU															
Waikato at Huntly-Tainui Br (20)	125	125	125	2000	1708	540	13	11	5	27	26	20	0.38 (E)	0.50	1.0
Waikato at Mercer Br (9)	80	80	80	1550	1348	540	12	11	5	20	20	20			

[4] See Map 3.11-2 for the location and extent of each sub-catchment

[5] Current State Attribute Bands for water clarity: A ≥ 2.2 m, B ≥ 1.6 - <2.2 m, C ≥1.0 - <1.6 m, D ≥0.5 - <1.0 m, E <0.5 m

Sub-Catchment[4] (identifying number)	Median *E. coli* (cfu/100 mL)			95th%ile *E. coli* (cfu/100 mL)			*E. coli*>540cfu/100 mL (%exceedances)			*E. coli*>260cfu/100 mL (%exceedances)			10th%ile clarity (m)		
	Current	Short	80-year	Current	Short	80-year	Current	Short	80-year	Current	Short	80-year	Current[5]	Short	80-year
Waikato at Tuakau Br (4)	80	80	80	1600	1388	540	12	11	5	18	18	18	0.35 (E)	0.48	1.0
Komakorau (22)	1100	906	130	3800	3148	540	85	69	5	92	78	20	0.09 (E)	0.27	1.0
Mangawara (17)	1000	826	130	5445	4464	540	70	57	5	91	77	20	0.17 (E)	0.34	1.0
Awaroa (Rotowaro) at Sansons Br (19)	290	258	130	1940	1660	540	18	15	5	62	54	20	0.31 (E)	0.45	1.0
Matahuru (14)	600	506	130	6770	5524	540	65	53	5	87	74	20	0.21 (E)	0.37	1.0
Whangape (16)	220	202	130	588	578	540	9	8	5	43	38	20	0.09 (E)	0.27	1.0
Waerenga (12)	500	426	130	5605	4592	540	38	31	5	82	70	20	0.44 (E)	0.55	1.0
Whangamarino at Jefferies Rd Br (8)	600	506	130	5175	4248	540	57	47	5	87	74	20	0.24 (E)	0.39	1.0
Mangatangi (2)	380	330	130	6125	5008	540	30	25	5	83	70	20	0.29 (E)	0.43	1.0
Mangatāwhiri (1)	190	178	130	5615	4600	540	13	11	5	30	28	20	0.33 (E)	0.46	1.0
Whangamarino at Island Block Rd (10)	180	170	130	667	642	540	17	15	5	39	35	20	0.12 (E)	0.30	1.0
Whakapipi (3)	320	282	130	1910	1636	540	35	29	5	74	63	20	0.43 (E)	0.54	1.0
Ohaeroa (7)	300	266	130	5125	4208	540	30	25	5	52	46	20	0.44 (E)	0.55	1.0
Opuatia (11)	390	338	130	3160	2636	540	34	28	5	68	58	20	0.31 (E)	0.45	1.0
Awaroa (Waiuku) (5)	240	218	130	1070	964	540	17	15	5	43	38	20	0.18 (E)	0.34	1.0
Waipā River FMU															
Waipā at Mangaokewa Rd (68)	210	194	130	2625	2208	540	22	19	5	35	32	20	0.58 (D)	0.78	1.6
Waipā at Otewa (60)	236	215	130	2203	1870	540	22	19	5	43	38	20	0.32 (E)	0.58	1.6
Waipā at Otorohanga (51)	180	170	130	3595	2984	540	18	15	5	36	33	20	0.38 (E)	0.50	1.0
Waipā at Pirongia-Ngutunui Rd Br (43)	300	266	130	4875	4008	540	36	30	5	56	49	20	0.29 (E)	0.43	1.0
Waipā at SH23 Br Whatawhata (34)	392	340	130	4003	3310	540	38	31	5	57	50	20	0.32 (E)	0.46	1.0
Ohote (26)	275	246	130	2320	1964	540	16	14	5	50	44	20	0.35 (E)	0.48	1.0
Kaniwhaniwha (36)	250	226	130	2070	1764	540	26	22	5	43	38	20	0.45 (E)	0.56	1.0
Mangapiko (38)	325	286	130	7800	6348	540	27	23	5	59	51	20	0.34 (E)	0.47	1.0
Mangaohoi (39)	70	70	70	987	898	540	8	7	5	18	18	18	0.84 (D)	0.87	1.0
Mangauika (37)	33	33	33	1060	956	540	8	7	5	13	13	13	1.93 (B)	1.98	2.2
Puniu at Bartons Corner Rd Br (40)	140	138	130	3040	2540	540	23	19	5	27	26	20	0.58 (D)	0.66	1.0
Mangatutu (47)	160	154	130	760	716	540	11	10	5	24	23	20	0.67 (D)	0.74	1.0
Waitomo at SH31 Otorohanga (46)	310	274	130	1555	1352	540	31	26	5	59	51	20	0.25 (E)	0.40	1.0
Mangapu (53)	480	410	130	4700	3868	540	47	39	5	66	57	20	0.27 (E)	0.42	1.0
Waitomo at Tumutumu Rd (52)	180	170	130	2430	2052	540	21	18	5	38	34	20	0.34 (E)	0.47	1.0
Mangaokewa (63)	490	418	130	6855	5592	540	43	35	5	83	70	20	0.43 (E)	0.54	1.0

Table 3.11-1(b) – Dissolved Nitrogen and Phosphorus Attribute States

Sub-Catchment[6] (identifying number)	Median nitrate (mg/L)			95th%ile nitrate (mg/L)			Median ammonia[7] (mg/L)			Maximum ammonia[8] (mg/L)			Median dissolved reactive phosphorus (mg/L)		
	Current	Short	80-year	Current	Short	80-year	Current	Short	80-year	Current	Short	80-year	Current	Short	80-year
Upper Waikato FMU															
Waikato at Ohaaki (73)	0.039	0.039	0.039	0.076	0.076	0.076	0.002	0.002	0.002	0.013	0.013	0.013	0.006	0.006	0.006
Waikato at Ohakuri (66)	0.086	0.086	0.086	0.177	0.177	0.177	0.003	0.003	0.003	0.017	0.017	0.017	0.009	0.009	0.009
Waikato at Whakamaru (67)	0.101	0.101	0.101	0.251	0.251	0.251	0.003	0.003	0.003	0.010	0.010	0.010	0.008	0.008	0.008
Waikato at Waipāpa (64)	0.164	0.164	0.164	0.320	0.320	0.320	0.007	0.007	0.007	0.016	0.016	0.016	0.016	0.016	0.016
Pueto (74)	0.450	0.450	0.450	0.536	0.536	0.536	0.003	0.003	0.003	0.009	0.009	0.009	0.074	0.074	0.074
Torepatutahi (72)	0.500	0.500	0.500	0.825	0.825	0.825	0.002	0.002	0.002	0.011	0.011	0.011	0.082	0.082	0.082
Waiotapu at Homestead (65)	1.285	1.228	1.000	1.665	1.632	1.500	0.121	0.103	0.030	0.190	0.162	0.050	0.034	0.034	0.034
Mangakara (69)	1.300	1.240	1.000	1.675	1.640	1.500	0.008	0.008	0.008	0.063	0.060	0.050	0.048	0.048	0.048
Kawaunui (62)	2.600	2.560	2.400	3.100	3.100	3.100	0.006	0.006	0.006	0.083	0.076	0.050	0.054	0.054	0.054
Waiotapu at Campbell (58)	0.915	0.915	0.915	1.135	1.135	1.135	0.301	0.289	0.240	0.349	0.349	0.349	0.002	0.002	0.002
Otamakokore (59)	0.740	0.740	0.740	1.360	1.360	1.360	0.006	0.006	0.006	0.025	0.025	0.025	0.153	0.153	0.153
Whirinaki (56)	0.770	0.770	0.770	0.885	0.885	0.885	0.002	0.002	0.002	0.013	0.013	0.013	0.061	0.061	0.061
Tahunaatara (54)	0.555	0.555	0.555	0.845	0.845	0.845	0.003	0.003	0.003	0.015	0.015	0.015	0.031	0.031	0.031
Mangaharakeke (57)	0.525	0.525	0.525	0.795	0.795	0.795	0.003	0.003	0.003	0.015	0.015	0.015	0.031	0.031	0.031
Waipāpa (70)	1.210	1.168	1.000	1.555	1.544	1.500	0.003	0.003	0.003	0.005	0.005	0.005	0.086	0.086	0.086
Mangakino (71)	0.650	0.650	0.650	0.875	0.875	0.875	0.003	0.003	0.003	0.012	0.012	0.012	0.039	0.039	0.039
Whakauru (49)	0.260	0.260	0.260	0.461	0.461	0.461	0.003	0.003	0.003	0.033	0.033	0.033	0.019	0.019	0.019
Mangamingi (48)	2.800	2.720	2.400	3.400	3.400	3.400	0.098	0.084	0.030	0.323	0.268	0.050	0.290	0.290	0.290
Pokaiwhenua (45)	1.755	1.604	1.000	2.200	2.060	1.500	0.002	0.002	0.002	0.020	0.020	0.020	0.087	0.087	0.087
Little Waipā (44)	1.580	1.464	1.000	2.150	2.020	1.500	0.002	0.002	0.002	0.089	0.081	0.050	0.051	0.051	0.051
Middle Waikato FMU															
Waikato at Narrows (33)	0.235	0.235	0.235	0.545	0.545	0.545	0.010	0.010	0.010	0.018	0.018	0.018	0.015	0.015	0.015
Waikato at Horotiu (25)	0.260	0.260	0.260	0.550	0.550	0.550	0.007	0.007	0.007	0.029	0.029	0.029	0.019	0.019	0.019
Karapiro (32)	0.520	0.520	0.520	1.760	1.708	1.500	0.008	0.008	0.008	0.031	0.031	0.031	0.042	0.042	0.042
Mangawhero (35)	2.100	1.880	1.000	2.720	2.476	1.500	0.042	0.040	0.030	0.074	0.069	0.050	0.040	0.040	0.040
Mangaonua (29)	1.505	1.404	1.000	2.100	1.980	1.500	0.037	0.036	0.030	0.051	0.051	0.050	0.012	0.012	0.012
Mangaone (31)	2.600	2.560	2.400	3.200	3.200	3.200	0.009	0.009	0.009	0.020	0.020	0.020	0.063	0.063	0.063
Mangakotukutuku (30)	0.800	0.800	0.800	2.350	2.180	1.500	0.082	0.072	0.030	0.141	0.123	0.050	0.213	0.213	0.213
Waitawhiriwhiri (28)	0.880	0.880	0.880	1.265	1.265	1.265	0.258	0.254	0.240	0.346	0.346	0.346	0.031	0.031	0.031
Kirikiriroa (23)	0.815	0.815	0.815	1.975	1.880	1.500	0.104	0.089	0.030	0.198	0.168	0.050	0.014	0.014	0.014
Lower Waikato FMU															
Waikato at Huntly-Tainui Br (20)	0.365	0.365	0.365	1.010	1.010	1.010	0.005	0.005	0.005	0.015	0.015	0.015	0.020	0.020	0.020

[6] See Map 3.11-2 for the location and extent of each sub-catchment

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

[8] The ammonia maximum is the average of five annual maxima

Sub-Catchment[6] (identifying number)	Median nitrate (mg/L)			95th%ile nitrate (mg/L)			Median ammonia[7] (mg/L)			Maximum ammonia[8] (mg/L)			Median dissolved reactive phosphorus (mg/L)		
	Current	Short	80-year	Current	Short	80-year	Current	Short	80-year	Current	Short	80-year	Current	Short	80-year
Waikato at Mercer Br (9)	0.365	0.365	0.365	0.895	0.895	0.895	0.003	0.003	0.003	0.011	0.011	0.011	0.016	0.016	0.016
Waikato at Tuakau Br (4)	0.325	0.325	0.325	0.890	0.890	0.890	0.003	0.003	0.003	0.008	0.008	0.008	0.014	0.014	0.014
Komakorau (22)	1.310	1.310	1.310	5.300	4.940	3.500	0.251	0.249	0.240	0.421	0.417	0.400	0.010	0.010	0.010
Mangawara (17)	0.765	0.765	0.765	3.350	2.980	1.500	0.111	0.095	0.030	0.185	0.158	0.050	0.047	0.047	0.047
Awaroa (Rotowaro) at Sansons Br (19)	0.700	0.700	0.700	1.390	1.390	1.390	0.024	0.024	0.024	0.093	0.084	0.050	0.002	0.002	0.002
Matahuru (14)	0.715	0.715	0.715	1.905	1.824	1.500	0.017	0.017	0.017	0.060	0.058	0.050	0.023	0.023	0.023
Whangape (16)	0.004	0.004	0.004	0.795	0.795	0.795	0.008	0.008	0.008	0.143	0.124	0.050	0.002	0.002	0.002
Waerenga (12)	0.820	0.820	0.820	1.420	1.420	1.420	0.005	0.005	0.005	0.023	0.023	0.023	0.019	0.019	0.019
Whangamarino at Jefferies Rd Br (8)	0.625	0.625	0.625	2.500	2.300	1.500	0.011	0.011	0.011	0.055	0.054	0.050	0.030	0.030	0.030
Mangatangi (2)	0.110	0.110	0.110	1.290	1.290	1.290	0.006	0.006	0.006	0.038	0.038	0.038	0.021	0.021	0.021
Mangatāwhiri (1)	0.013	0.013	0.013	0.400	0.400	0.400	0.003	0.003	0.003	0.011	0.011	0.011	0.011	0.011	0.011
Whangamarino at Island Block Rd (10)	0.075	0.075	0.075	0.865	0.865	0.865	0.013	0.013	0.013	0.158	0.136	0.050	0.006	0.006	0.006
Whakapipi (3)	3.500	3.280	2.400	5.350	4.980	3.500	0.006	0.006	0.006	0.084	0.077	0.050	0.022	0.022	0.022
Ohaeroa (7)	1.525	1.420	1.000	1.915	1.832	1.500	0.003	0.003	0.003	0.015	0.015	0.015	0.008	0.008	0.008
Opuatia (11)	0.740	0.740	0.740	1.081	1.081	1.081	0.005	0.005	0.005	0.016	0.016	0.016	0.006	0.006	0.006
Awaroa (Waiuku) (5)	1.410	1.328	1.000	2.500	2.300	1.500	0.022	0.022	0.022	0.144	0.125	0.050	0.004	0.004	0.004
Waipā River FMU															
Waipā at Mangaokewa Rd (68)	0.380	0.380	0.380	0.710	0.710	0.710	0.003	0.003	0.003	0.017	0.017	0.017	0.005	0.005	0.005
Waipā at Otewa (60)	0.228	0.228	0.228	0.504	0.504	0.504	0.003	0.003	0.003	0.008	0.008	0.008	0.008	0.008	0.008
Waipā at Otorohanga (51)	0.370	0.370	0.370	1.150	1.150	1.150	0.004	0.004	0.004	0.020	0.020	0.020	0.008	0.008	0.008
Waipā at Pirongia-Ngutunui Rd Br (43)	0.565	0.565	0.565	1.535	1.528	1.500	0.008	0.008	0.008	0.023	0.023	0.023	0.014	0.014	0.014
Waipā at SH23 Br Whatawhata (34)	0.673	0.673	0.673	1.587	1.570	1.500	0.009	0.009	0.009	0.026	0.026	0.026	0.018	0.018	0.018
Ohote (26)	0.495	0.495	0.495	1.385	1.385	1.385	0.023	0.023	0.023	0.052	0.052	0.050	0.020	0.020	0.020
Kaniwhaniwha (36)	0.350	0.350	0.350	0.995	0.995	0.995	0.007	0.007	0.007	0.022	0.022	0.022	0.007	0.007	0.007
Mangapiko (38)	1.410	1.328	1.000	2.650	2.420	1.500	0.022	0.022	0.022	0.078	0.072	0.050	0.115	0.115	0.115
Mangaohoi (39)	0.230	0.230	0.230	0.415	0.415	0.415	0.003	0.003	0.003	0.008	0.008	0.008	0.043	0.043	0.043
Mangauika (37)	0.210	0.210	0.210	0.286	0.286	0.286	0.002	0.002	0.002	0.003	0.003	0.003	0.002	0.002	0.002
Puniu at Bartons Corner Rd Br (40)	0.650	0.650	0.650	1.305	1.305	1.305	0.007	0.007	0.007	0.029	0.029	0.029	0.022	0.022	0.022
Mangatutu (47)	0.380	0.380	0.380	0.908	0.908	0.908	0.003	0.003	0.003	0.012	0.012	0.012	0.009	0.009	0.009
Waitomo at SH31 Otorohanga (46)	0.520	0.520	0.520	0.925	0.925	0.925	0.008	0.008	0.008	0.026	0.026	0.026	0.006	0.006	0.006
Mangapu (53)	0.860	0.860	0.860	1.428	1.428	1.428	0.016	0.016	0.016	0.064	0.061	0.050	0.023	0.023	0.023
Waitomo at Tumutumu Rd (52)	0.630	0.630	0.630	0.825	0.825	0.825	0.004	0.004	0.004	0.013	0.013	0.013	0.010	0.010	0.010
Mangaokewa (63)	0.525	0.525	0.525	1.060	1.060	1.060	0.005	0.005	0.005	0.014	0.014	0.014	0.014	0.014	0.014

Table 3.11-1(c) – Chlorophyll, Total Nitrogen and Total Phosphorus Attribute States

Sub-Catchment[9] (identifying number)	Median Chlorophyll-*a* (mg/m³)			Maximum Chlorophyll-*a* (mg/m³)			Median Total Nitrogen (mg/m³)			Median Total Phosphorus (mg/m³)		
	Current	Short	80-year	Current	Short	80-year	Current	Short	80-year	Current	Short	80-year
Upper Waikato FMU												
Waikato at Ohaaki (73)	1.5	1.5	1.5	13	13	13	134	134	134	10	10	10
Waikato at Ohakuri (66)	3.1	3.1	3.1	11	11	11	216	216	216	17	17	17
Waikato at Whakamaru (67)		5.0	5.0		25	25	271	271	271	20	20	20
Waikato at Waipāpa (64)	4.0	4.0	4.0	25	25	25	336	329	300	25	25	25
Pueto (74)							540			93		
Torepatutahi (72)							625			96		
Waiotapu at Homestead (65)							1860			100		
Mangakara (69)							1580			74		
Kawaunui (62)							2990			82		
Waiotapu at Campbell (58)							1955			72		
Otamakokore (59)							990			144		
Whirinaki (56)							810			62		
Tahunaatara (54)							780			44		
Mangaharakeke (57)							685			48		
Waipāpa (70)							1355			95		
Mangakino (71)							760			47		
Whakauru (49)							470			42		
Mangamingi (48)							3495			325		
Pokaiwhenua (45)							2010			106		
Little Waipā (44)							1780			68		
Middle Waikato FMU												
Waikato at Narrows (33)	5.5	5.4	5.0	23	23	23	410	410	410	28	27	25
Waikato at Horotiu (25)	6.0	5.8	5.0	23	23	23	441	441	441	36	35	31
Karapiro (32)							860			86		
Mangawhero (35)							2930			163		
Mangaonua (29)							1905			52		
Mangaone (31)							3060			118		
Mangakotukutuku (30)							1875			415		
Waitawhiriwhiri (28)							2110			91		
Kirikiriroa (23)							1490			63		
Lower Waikato FMU												
Waikato at Huntly-Tainui Br (20)	6.0	5.8	5.0	19	19	19	585	568	500	45	42	31
Waikato at Mercer Br (9)	10.5	9.4	5.0	30	29	25	662	630	500	52	49	38
Waikato at Tuakau Br (4)	12.0	10.6	5.0	38	35	25	595	576	500	52	49	38

[9] See Map 3.11-2 for the location and extent of each sub-catchment

Sub-Catchment[9] (identifying number)	Median Chlorophyll-*a* (mg/m³)			Maximum Chlorophyll-*a* (mg/m³)			Median Total Nitrogen (mg/m³)			Median Total Phosphorus (mg/m³)		
	Current	Short	80-year	Current	Short	80-year	Current	Short	80-year	Current	Short	80-year
Komakorau (22)							2900			90		
Mangawara (17)							1890			210		
Awaroa (Rotowaro) at Sansons Br (19)							990			12		
Matahuru (14)							1310			98		
Whangape (16)							2116			122		
Waerenga (12)							1115			46		
Whangamarino at Jefferies Rd Br (8)							1085			88		
Mangatangi (2)							493			72		
Mangatāwhiri (1)							181			23		
Whangamarino at Island Block Rd (10)[10]							1831	1625	800	152	132	50
Whakapipi (3)							3875			51		
Ohaeroa (7)							1825			26		
Opuatia (11)							1070			31		
Awaroa (Waiuku) (5)							2095			46		
Waipā River FMU												
Waipā at Mangaokewa Rd (68)							585			16		
Waipā at Otewa (60)							366			20		
Waipā at Otorohanga (51)							600			22		
Waipā at Pirongia-Ngutunui Rd Br (43)							860			48		
Waipā at SH23 Br Whatawhata (34)							912			70		
Ohote (26)							1320			76		
Kaniwhaniwha (36)							590			29		
Mangapiko (38)							2095			240		
Mangaohoi (39)							365			52		
Mangauika (37)							275			8		
Puniu at Bartons Corner Rd Br (40)							910			48		
Mangatutu (47)							510			20		
Waitomo at SH31 Otorohanga (46)							755			30		
Mangapu (53)							1240			60		
Waitomo at Tumutumu Rd (52)							765			22		
Mangaokewa (63)							775			36		

[10] The Whangamarino at Island Block Road water quality monitoring site is representative of the surface water across Whangamarino Wetland. This is because the Whangamarino River and the wetland are hydrologically connected.

Table 3.11-1(d) – Dune, Riverine, Volcanic and Peat Lakes Freshwater Management Units

Lake FMU	Attributes								
	Annual Median Chlorophyll-*a* (mg/m^3)	**Annual Maximum Chlorophyll-*a* (mg/m^3)**	**Annual Median Ammonia[11] (mg NH_4-N/L)**	**Annual Maximum Ammonia[11] (mg NH_4-N/L)**	**Annual Median Total Nitrogen (mg/m^3)**	**Annual Median Total Phosphorus (mg/m^3)**	**95th percentile *E. coli* (*E. coli*/100mL)**	**80th percentile Cyanobacteria (biovolume mm^3/L)**	**Clarity[12] (m)**
	80 year*	**80 year***	**80 year***	**80 year***	**80 year***	**80 year***	**80 year***	**80 year***	**80 year***
Dune	12	60	0.24	0.40	750	50	540	1.8†	1
Riverine	12	60	0.24	0.40	800	50	540	1.8†	1
Volcanic Zone	12	60	0.24	0.40	750	50	540	1.8†	1
Peat	12	60	0.24	0.40[13]	750	50	540	1.8†	1

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

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

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

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

Table 3.11-2 – Prioritisation of contaminants in each sub-catchment (as noted under Policy 1)/Te Ripanga 3.11-2: Te whakamātāmuatanga o ngā tāhawahawatanga i roto i ia riu kautawa (e rārangi ana i raro i te Kaupapa Here 1)

Sub-catchment identifier	Sub - catchment number[14]	Freshwater Management Unit[15]	Prioritisation of Contaminants			
			E. coli	Sediment	N	P
Waikato at Ohaaki	73	UW				
Waikato at Ohakuri	66	UW				
Waikato at Whakamaru	67	UW				
Waikato at Waipapa	64	UW				P
Waikato at Karapiro	41	UW	no current state water quality data			
Pueto	74	UW				P
Torepatutahi	72	UW				P
Waiotapu at Homestead	65	UW			N	P
Mangakara	69	UW	*E. coli*		N	P
Kawaunui	62	UW	*E. coli*		N	P
Puniu at Wharepapa	50	WA			N	
Waiotapu at Campbell	58	UW				
Otamakokore	59	UW	*E. coli*			P
Whirinaki	56	UW				P
Tahunaatara	54	UW				P
Mangaharakeke	57	UW	*E. coli*			P
Waipapa	70	UW			N	P
Mangakino	71	UW				P
Whakauru	49	UW	*E. coli*			P
Mangamingi	48	UW	*E. coli*		N	P
Pokaiwhenua	45	UW	*E. coli*		N	P
Little Waipa	44	UW			N	P
Waikato at Narrows	33	MW				
Waikato at Horotiu Br	25	MW				P
Karapiro	32	MW	*E. coli*	Sediment		P
Waikato at Bridge St Br	27	MW	no current state water quality data			
Mangawhero	35	MW	*E. coli*	Sediment	N	P
Mangaonua	29	MW	*E. coli*	Sediment	N	
Mangaone	31	MW	*E. coli*		N	P
Mangakotukutuku	30	MW	*E. coli*	Sediment	N	P
Waitawhiriwhiri	28	MW	*E. coli*	Sediment	N	P
Kirikiriroa	23	MW	*E. coli*	Sediment	N	P
Waikato at Huntly-Tainui Br	20	LW		Sediment		P
Waikato at Rangiriri	15	LW	no current state water quality data			
Waikato at Mercer Br	9	LW		Sediment		P
Waikato at Tuakau Br	4	LW		Sediment		
Waikato at Port Waikato	6	LW	no current state water quality data			
Komakorau	22	LW	*E. coli*	Sediment	N	
Mangawara	17	LW	*E. coli*	Sediment	N	P
Awaroa (Rotowaro) at Sansons Br	19	LW	*E. coli*	Sediment		
Matahuru	14	LW	*E. coli*	Sediment	N	P
Firewood	21	LW	no current state water quality data			
Whangape	16	LW	*E. coli*	Sediment	N	
Waerenga	12	LW	*E. coli*	Sediment	N	P
Whangamarino at Jefferies Rd Br	8	LW	*E. coli*	Sediment		P
Waikare	13	LW		Sediment	N	P
Mangatangi	2	LW	*E. coli*	Sediment		P
Mangatāwhiri	1	LW	*E. coli*	Sediment		
Whangamarino at Island Block Rd	10	LW	*E. coli*	Sediment		P

[14] See Map 3.11-2
[15] See Map 3.11-1

Sub-catchment identifier	Sub - catchment number[14]	Freshwater Management Unit[15]	Prioritisation of Contaminants			
			E. coli	**Sediment**	**N**	**P**
Whakapipi	3	LW	*E. coli*	Sediment	N	P
Ohaeroa	7	LW	*E. coli*	Sediment	N	P
Opuatia	11	LW	*E. coli*	Sediment	N	
Awaroa (Waiuku)	5	LW	*E. coli*	Sediment	N	
Awaroa (Rotowaro) at Harris/Te Ohaki Br	18	LW	*E. coli*	Sediment		
Waipā at Mangaokewa Rd	68	WA	*E. coli*			
Waipā at Otewa	60	WA	*E. coli*	Sediment		
Waipā at Otorohanga	51	WA	*E. coli*	Sediment		
Waipā at Pirongia-Ngutunui Rd Br	43	WA	*E. coli*	Sediment		
Waipā at SH23 Br Whatawhata	34	WA	*E. coli*	Sediment	N	
Ohote	26	WA	*E. coli*	Sediment		P
Kaniwhaniwha	36	WA	*E. coli*	Sediment		
Mangapiko	38	WA	*E. coli*	Sediment	N	P
Mangaohoi	39	WA				P
Mangauika	37	WA				
Puniuat Bartons Corner Rd Br	40	WA	*E. coli*			P
Mangatutu	47	WA	*E. coli*			
Waitomo at SH31 Otorohanga	46	WA	*E. coli*	Sediment		
Mangapu	53	WA	*E. coli*	Sediment	N	P
Waitomo at Tumutumu Rd	52	WA	*E. coli*	Sediment	N	
Mangaokewa	63	WA	*E. coli*	Sediment		
Mangarama	61	WA	no current state water quality data			
Mangarapa	55	WA	no current state water quality data			
Moakurarua	42	WA	no current state water quality data			
Waipā at Waingaro Rd Br	24	WA	no current state water quality data			

Note – If a contaminant is not noted as being a priority in a particular sub-catchment, this does not mean it is not an issue in that sub-catchment.

Table 3.11-3 – Sub-catchment Application Date/Te Ripanga 3.11-3: Te rā tono o te riu kautawa

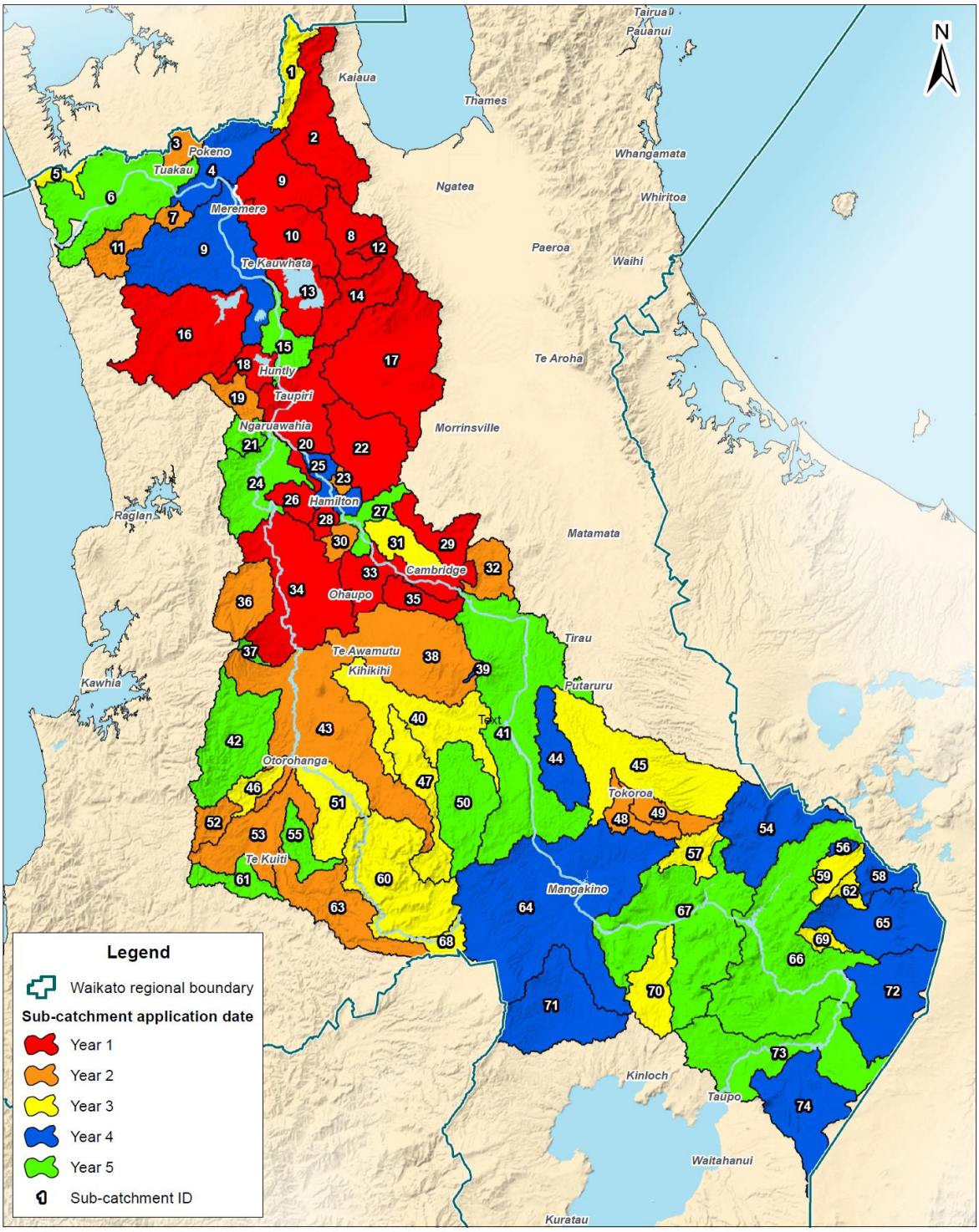
For the purpose of this table, a property is considered to be within the sub-catchment where the greatest proportion of that property is located.

The "Application Date" is the date Plan Change 1 is made operative, plus the number of years in the "year" column below.

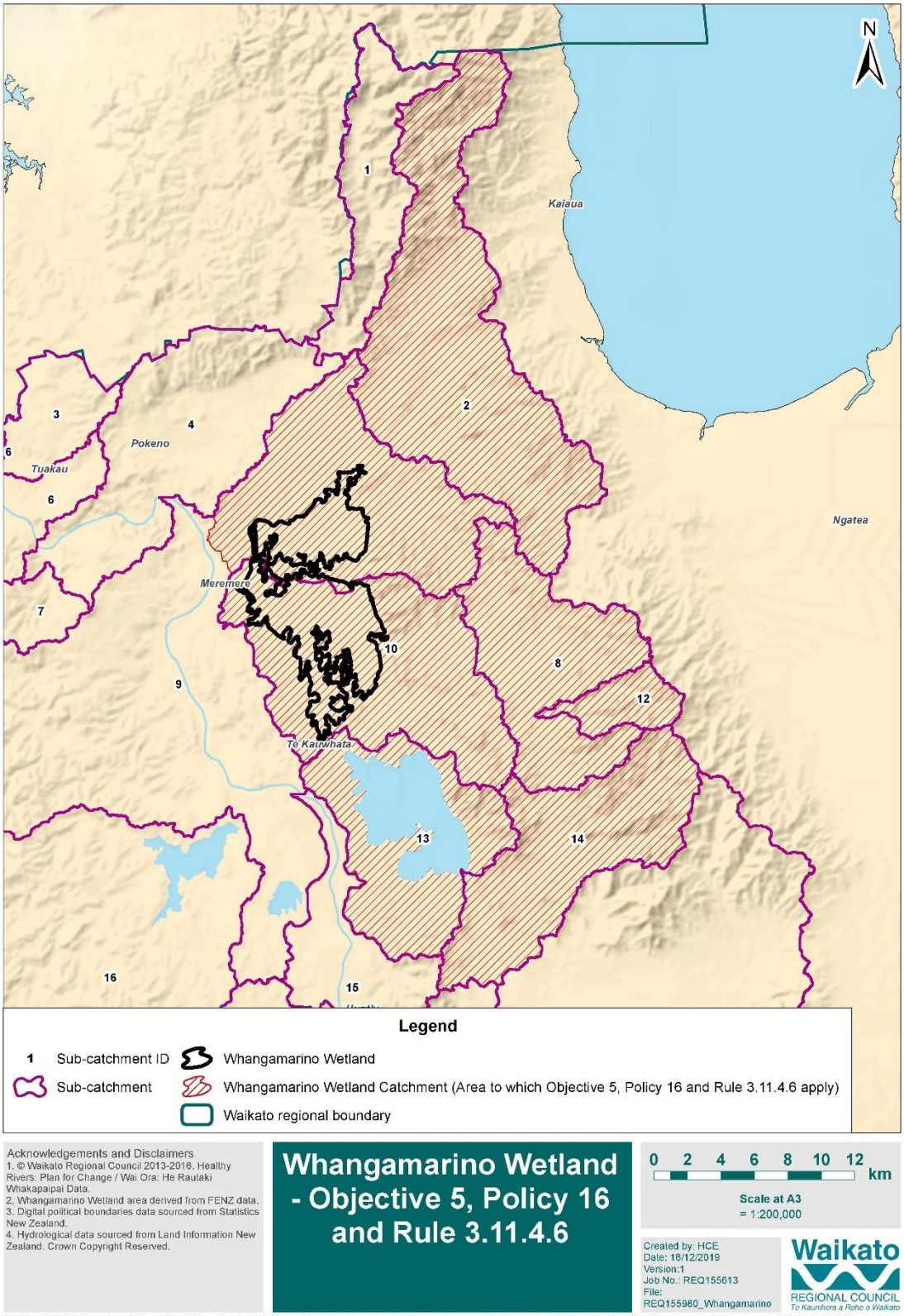
YEAR	SUB-CATCHMENT IDENTIFIER	FMU[16]	SUB-CATCHMENT #[17]
1	Mangatangi	LW	2
1	Whangamarino at Jefferies Rd Br	LW	8
1	Whangamarino at Island Block Rd	LW	10
1	Waerenga	LW	12
1	Waikare	LW	13
1	Matahuru	LW	14
1	Awaroa (Rotowaro) at Harris/Te Ohaki Br	LW	18
1	Whangape	LW	16
1	Waipā at SH23 Br Whatawhata	WA	34
1	Waitawhiriwhiri	MW	28
1	Ohote	WA	26
1	Komakorau	LW	22
1	Mangawara	LW	17
1	Mangaonua	MW	29
1	Mangawhero	MW	35
1	Waikato at Huntly-Tainui Br	LW	20
1	Waikato at Mercer Br	LW	9[18]
1	Waikato at Narrows	MW	33
2	Mangamingi	UW	48
2	Kirikiriroa	MW	23
2	Mangakotukutuku	MW	30
2	Mangaokewa	WA	63
2	Whakauru	UW	49
2	Mangapu	WA	53
2	Opuatia	LW	11
2	Mangapiko	WA	38
2	Whakapipi	LW	3
2	Waitomo at Tumutumu Rd	WA	52
2	Ohaeroa	LW	7
2	Waipā at Pirongia-Ngutunui Rd Br	WA	43
2	Karapiro	MW	32
2	Awaroa (Rotowaro) at Sansons Br	LW	19
2	Kaniwhaniwha	WA	36
3	Awaroa (Waiuku)	LW	5
3	Waipā at Otewa	WA	60

16 See Map 3.11-1
17 See Map 3.11-2
18 Note - That the part of sub-catchment 9 that is in the Whangamarino catchment as per Map 3.11-3 is year 1, with the 'remainder' in year 4

YEAR	SUB-CATCHMENT IDENTIFIER	FMU[16]	SUB-CATCHMENT #[17]
3	Waipā at Mangaokewa Rd	WA	68
3	Kawaunui	UW	62
3	Mangatāwhiri	LW	1
3	Waipā at Ōtorohanga	WA	51
3	Mangaharakeke	UW	57
3	Mangatutu	WA	47
3	Pokaiwhenua	UW	45
3	Mangakara	UW	69
3	Puniu at Bartons Corner Rd Br	WA	40
3	Mangaone	MW	31
3	Waitomo at SH31 Ōtorohanga	WA	46
3	Otamakokore	UW	59
3	Waipapa	UW	70
4	Little Waipā	UW	44
4	Waikato at Tuakau Br	LW	4
4	Waiotapu at Homestead	UW	65
4	Waikato at Horotiu Br	MW	25
4	Tahunaatara	UW	54
4	Waikato at Mercer Br	LW	9[18]
4	Torepatutahi	UW	72
4	Waiotapu at Campbell	UW	58
4	Mangakino	UW	71
4	Waikato at Waipapa	UW	64
4	Mangaohoi	WA	39
4	Whirinaki	UW	56
4	Pueto	UW	74
5	Waikato at Ohaaki	UW	73
5	Waikato at Ohakuri	UW	66
5	Waikato at Bridge St Br	MW	27
5	Waikato at Port Waikato	LW	6
5	Waikato at Rangiriri	LW	15
5	Waikato at Whakamaru	UW	67
5	Waikato at Karapiro	UW	41
5	Firewood	LW	21
5	Puniu at Wharepapa	WA	50
5	Waipā at Waingaro Rd Br	WA	24
5	Mangarapa	WA	55
5	Mangarama	WA	61
5	Moakurarua	WA	42
5	Mangauika	WA	37



Map 3.11-2: Map of the Waikato and Waipā River Catchments, showing sub-catchments/ Te Mahere 3.11-2: Te mahere o ngā riu o ngā awa o Waikato me Waipā e whakaatu ana i ngā riu kautawa



Map 3.11-3: Map of Whangamarino Wetland Catchment/Te Mahere 3.11-3: Te mahere o te Riu o ngā Repo o Whangamarino

PART B

Insert the following terms into the Glossary in alphabetical order.

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

Annual stocking rate: means the average of 12 monthly average stock unit counts on a property divided by the grazed hectares of the property, and is expressed as su/ha, and is based on a farm year of 1 July to 30 June in any year.

Arable cropping: means the following arable crops:
i. grain cereal, legume, and pulse grain crops
ii. herbage seed crops
iii. oilseeds
iv. crops grown for seed multiplication for use in New Zealand or overseas
v. hybrid and open pollinated vegetable and flower seeds
and includes maize grain, maize silage, cereal silage, and mangels.

Certified Farm Environment Planner: is a person who has been approved by the Chief Executive of the Waikato Regional Council to provide farm environment planning and auditing services in one or more of pastoral, horticultural or arable farm systems. The person shall:
a. have a minimum of three years relevant experience in pastoral, horticultural or arable farm systems; and
b. be certified as a Nutrient Management Adviser under a national nutrient management adviser certification programme (or an equivalent certification programme approved by the Chief Executive of Waikato Regional Council); and
c. have experience in soil conservation and sediment management; and
d. have agreed to Waikato Regional Council's terms of agreement for operating as a Certified Farm Environment Planner.

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

Certified Farm Nutrient Advisor: is a person who has been approved by the Chief Executive of the Waikato Regional Council to provide nutrient management advice and produce a Nitrogen Leaching Loss Rate in accordance with Schedule B. The person shall:
a. be certified as a Nutrient Management Adviser under a national nutrient management adviser certification programme (or an equivalent certification programme approved by the Chief Executive of Waikato Regional Council); and
b. have agreed to Waikato Regional Council's terms of agreement for operating as a Certified Farm Nutrient Advisor.

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

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

For the avoidance of doubt, the following are not commercial vegetable production**:** the production of apples, asparagus, avocados, babacos, beans, berry crops, casanas, cherimoyas, citrus, feijoas, figs, guavas, kiwifruit, kiwiberries, loquats, passionfruit, pears, peas, persimmons, quinces, sapotes, summerfruit (including apricots, cherries, nectarines, peaches, and plums), and tamarillos, tree leaf crops (including tea); and any hybrids of these crops.

Critical source areas: For the purposes of Chapter 3.11, means those areas of farmed land that contribute a disproportionately large amount of sediment, phosphorus and microbial pathogens to surface water.

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 or fertiliser.
b. no-tillage practices.
c. tree planting.

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

Dairy Farming: means farming of dairy cattle on a **milking platform**.

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 excludes point source discharges.

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

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

***Escherichia coli* (*E. coli*):** 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).

Farm Environment Plan/s: For the purposes of Chapter 3.11, means a plan developed in accordance with Schedule D1 or D2.

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

a. planted production forest; or
b. the growing of crops on land irrigated by municipal wastewater discharges; or
c. hydrologically self-contained growing of produce undertaken entirely within a building; or
d. growing of produce for consumption by the occupier of the property or their family; or
e. intensive indoor farming.

Feedlot: An area of land on which livestock are contained, where there is no forage available for grazing, and feed is brought to the livestock within the area of containment, but does not include horses stabled or in yards.

Grazed hectares: means the area in hectares, of a property that:

a. is in pasture and used for stock grazing; and
b. is in crops that are entirely grazed in-situ; and
c. is used as sacrifice paddocks; and
d. includes, for a period of 10 years from the date the land is retired, any land previously used for grazing that has been retired from all farming or forestry activities.

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

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

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

Milking platform: means that area of land devoted to feeding dairy cattle on a daily basis for the purpose of milk production and includes land used for the growing of feed for the cows within the same property.

Nitrogen Leaching Loss Rate: A nitrogen loss rate established in conformance with Schedule B.

Property: For the purposes of Chapter 3.11, means, to the extent that the land is within the Waikato and Waipā River catchments shown in Map 3.11-1, one or more allotments contained in single Computer Freehold Register (certificate of title), and also includes all adjacent land that is in common ownership but contained in separate certificates of title, including certificates of title separated only by a road, river or utility corridor, and is a single operating unit for the purpose of management.

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

Regionally Significant Infrastructure: is as defined in the Operative Waikato Regional Policy Statement 2016.

Sacrifice Paddock: means an area of land on which livestock are repeatedly but temporarily contained, typically during extended periods of wet weather, where the soil in the confinement area suffers such severe treading damage that pasture renovation is required.

Sector scheme/s: is a scheme group or organisation responsible for preparing and assisting with the implementation of Farm Environment Plans that has been certified by the Chief Executive of Waikato Regional Council and listed on the Waikato Regional Council website as meeting the standards, assessment criteria and requirements set out in Schedule E of Chapter 3.11.

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

Slope: means the steepness of the land surface. For the purposes of Chapter 3.11, for cultivation and grazing, slope shall mean the average slope over any 20m distance (measured along the ground surface); and for stock exclusion requirements, shall mean the average slope, measured from the edge of the bed of a waterbody to a distance of 20m perpendicular to that waterbody, averaged for the paddock. Slope is measured in degrees and to an accuracy no less than that achieved by a handheld inclinometer or Abney level.

Stock unit: means an animal that eats 6,000 megajoules of metabolisable energy per year, and for the stock listed, is illustrated by the following stocking rate table.

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)	2.7	Friesian 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
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

Stock class	Number of Stock Units per animal	Animal performance definition
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

Sub-catchment: For the purposes of Chapter 3.11, means one of the 74 separate areas of land within the Waikato or Waipā River catchments shown on Map 3.11-2.

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

Winter forage crop: means crops, annual or biennial, but excluding pasture species, which are grown to be utilised by grazing or harvesting as a whole crop between 1 May and 30 September of each year.

Winter stocking rate: means the winter average of stock unit counts on a property divided by the grazed hectares of the property, and is expressed as wsu/ha, and is based on the period 1 May to 31 July in any year.

Woody vegetation: means indigenous vegetation, plantation forest, and any other non-pastoral vegetation (excluding weed species).

PART C

Consequential amendments to Waikato Regional Plan/Ngā whakatikahanga ka hua ake mō roto i te Mahereā-Rohe a Waikato

Formatting used:

- Note that for the following text the new wording underlined and deleted wording has ~~strikethrough~~
- Blue "filling" marks different chapters/sections of the WRP and is inserted for ease of reference only

Operative Plan Provision	*Proposed Change*
Readers Guide	
Introduction	*Add to end second para*: Plan Change1 - Waikato and Waipā River catchments (made operative on [*date*])
Abbreviations and Symbols	*Add the following alphabetically:* NPS - FM National Policy Statement Freshwater Management FEP - Farm Environment Plan Ha - hectare FMU - Freshwater Management Unit N - Nitrogen P - Phosphorus *E. coli - Escherichia coli*

2. Matters of Significance to Maori	
2.1.1 General	*Add a new section at the end of 2.1.1:* Legislation passed in 2010 and 2012* introduced a new era of co-management for the Waikato and Waipā River catchments. Co-management provides ways for iwi to manage the rivers together with central and local government. Waikato and Waipā River Iwi – Ngāti Maniapoto, Raukawa, Ngāti Tūwharetoa, Te Arawa River Iwi and Waikato-Tainui – and Waikato Regional Council have been partners in developing the *Healthy Rivers: Plan for Change/ Wai Ora: He Rautaki Whakapaipai* project. This project was set up to assist in achieving the *Vision and Strategy for the Waikato River/ Te Ture Whaimana o Te Awa o Waikato*. *Te Ture Whaimana o Te Awa o Waikato* is the primary direction-setting document for the Waikato and Waipā Rivers and focuses on restoring and protecting the health and well-being of the rivers for current and future generations.

	Chapter 3.11 has arisen from the above co-management project together with the Government's National Policy Statement for Freshwater Management 2014, and specifically addresses the Waikato and Waipā River catchments. * Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010; Ngati Tūwharetoa, Raukawa and Te Arawa River Iwi Waikato River Act 2010 and Nga Wai o Maniapoto (Waipā River) Act 2012.

3.1 Water Resources	
3.1 Background and Explanation	*Add to end of para 4:* Chapter 3.11 sets out more stringent provisions within the Waipā and Waikato River catchments to address the trend of degrading water quality.
	Add new sentence as second para in section "Tangata Whenua": The Waikato and Waipā River catchments are co-managed by the Waikato and Waipā River iwi – Ngāti Maniapoto, Raukawa, Ngāti Tūwharetoa, Te Arawa River Iwi and Waikato-Tainui – and Waikato Regional Council. The *Vision and Strategy for the Waikato River/ Te Ture Whaimana o Te Awa o Waikato* is the primary direction-setting document for the Waikato and Waipā Rivers and focuses on restoring and protecting the health and well-being of the rivers for current and future generations. (Refer also to CH 3.11)
	Amend last sentence under "Issue and Objective": ….the objectives are found in Chapter 3.2 – ~~3.9~~3.11 of this Plan…..

3.2 Management of Water Resources	
3.2 Water Management Classes	*Add as a new last paragraph:* **Freshwater Management Units** In Chapter 3.11, Fresh Water Management Units and associated numerical water quality values have been established for the Waikato and Waipā River catchments. Within the Waikato and Waipā River catchments, these targets are used in decision-making processes guided by the objectives in Chapter 3.11 and for future monitoring of changes in the state of water quality within the catchments. With regard to consent applications for diffuse discharges or point source discharges of nitrogen, phosphorus, sediment and microbial pathogens it is not intended, nor is it in the nature of water quality targets, that they be used directly as receiving water compliance limits/standards.
3.2.4.1 Water Management Classes	*Amend 3.2.4.1(e):* …. apply to a water body as well as policies in Section 3.11.2 for waterbodies in the Waikato and Waipā River catchments, when making decisions …. the same issue and are inconsistent particular regard….

3.3.3 Water Takes - *Policies*	
Policy 1 (c)	*Amend Policy 1(c):* ….in accordance with the policies in Chapters 3.2 and 3.11 of this Plan.

(Establish Allocation and Minimum Flows for Surface Water)	
Policy 4 (f) (Establish Sustainable Yields from Groundwater)	*Amend Policy 4(f):* ….in accordance with the policies in Chapters 3.2 and 3.11 of this Plan.
Standard 3.3.4.28 (How riparian planting and stock exclusion fencing shall apply)	*Add a new advisory note:* Within the Waikato and Waipā River catchments, additional requirements for riparian planting and stock exclusion fencing are outlined in Chapter 3.11.

3.4.5 Implementation methods – The Use of Water	
Rule 3.4.5.6 Permitted Activity Rule - Use of Water for Crop and Pasture Irrigation	*Add a new advisory note:* Subject to compliance with any specified requirements, reporting through a Farm Environment Plan is a valid means of describing how irrigation water balances will be calculated and managed.
Rule 3.4.5.7 Controlled Activity Rule - Use of Water for Crop and Pasture Irrigation	*Add a new advisory note:* Subject to compliance with any specified requirements, reporting through a Farm Environment Plan is a valid means of describing how irrigation water balances will be calculated and managed.

3.5 Discharges	
Background and Explanation	*Insert new section at end of the Background and Explanation section:* **Discharges associated with Farming Land Use** Chapter 3.11 addresses the use of land for farming in the Waikato and Waipā River catchments including associated diffuse discharges.
Objective 3.5.2	*Amend Objective 3.5.2 by adding a new clause c) as follows (and consequential renumbering):* c) does not have adverse effects that are inconsistent with the objectives for the Waikato and Waipā River catchments in Section 3.11.1.
3.5.3 Policy 2(a) *Managing Discharges to Water with More than*	*Amend 3.5.3 Policy 2(a):* … with the policies in Sections 3.2.3 and 3.11.2 of this Plan….

Minor Adverse Effects)	
3.5.3 Policy 4 Discharges to Land: Advisory Note	*Add a new advisory note:* In the Waikato and Waipā River catchments, refer also to Chapter 3.11.
3.5.3 Policy 5(b) *Ground Water*	*Amend 3.5.3 Policy 5(b):* … with the policies in Sections 3.2.3 and 3.11.2 of this Plan ….
Explanation and Principal Reasons for Adopting the Policies	*Add at the end of Policy 2 para:* The cross reference to Section 3.11.2 recognises the specific water quality objectives sought to be achieved for the Waikato and Waipā River catchments through Chapter 3.11. *Add at the end of Policy 6 para.:* Chapter 3.11 addresses how water quality aspects of Te Ture Whaimana o Te Awa o Waikato will be given effect to in the Waikato and Waipā River catchments.
Rule 3.5.5.1 *Permitted Activity Rule - Discharge of Farm Animal Effluent onto Land*	*Amend opening of rule:* The point source discharge of contaminants onto land …
Advisory Notes to Rule 3.5.5.1 Permitted Activity Rule - Discharge of Farm Animal Effluent onto Land	*Add new bullet point:* Diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens associated with use of land for farming in the Waikato and Waipā River catchments are addressed in Chapter 3.11.
Rule 3.5.5.2 *Permitted Activity Rule - Discharge of Feed Pad and Stand-Off Pad Effluent onto Land*	*Amend opening of rule:* The point source discharge of feed pad …
Advisory Notes to Rule 3.5.5.2 *Permitted Activity Rule - Discharge of Feed Pad and Stand-Off Pad Effluent onto Land*	*Add new bullet point:* Diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens associated with use of land for farming in the Waikato and Waipā River catchments are addressed in Chapter 3.11.
Rule 3.5.5.3 *Controlled Activity Rule -*	*Amend opening of rule:* The point source discharge of contaminants …

Existing Discharge(s) of Effluent from Pig Farms onto Land	
Advisory Notes to Rule 3.5.5.3 *Controlled Activity Rule - Existing Discharge(s) of Effluent from Pig Farms onto Land*	*Add new bullet point:* *Diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens associated with use of land for farming in the Waikato and Waipā River catchments are addressed in Chapter 3.11.*
Rule 3.5.5.4 Discretionary Activity Rule - Discharge of Effluent onto Land	*Amend opening of rule:* The point source discharge of farm …
Advisory Notes to Rule 3.5.5.4 Discretionary Activity Rule - Discharge of Effluent onto Land	*Add new bullet point:* Diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens associated with use of land for farming in the Waikato and Waipā River catchments are addressed in Chapter 3.11.
Rule 3.5.5.5 Discretionary Activity Rule - Discharge of Treated Effluent to Water	*Amend opening of rule:* Except as provided for by Rule 3.5.4.6, the point source discharge of treated…
Advisory Notes to Rule 3.5.5.5 Discretionary Activity Rule - Discharge of Treated Effluent to Water	*Add new bullet point:* Diffuse discharges of nitrogen, phosphorus, sediment and microbial pathogens associated with use of land for farming in the Waikato and Waipā River catchments are addressed in Chapter 3.11.
Rule 3.5.5.6 Prohibited Activity Rule - Discharge of Untreated Animal Effluent	*Amend opening of rule:* The point source discharge of untreated …
Explanation and Principal reasons for adopting methods 3.5.5.1 to 3.5.5.6	*Add a new sentence at the end of first para:* Additional policies, rules and methods are provided in Chapter 3.11 to manage diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens associated with use of land for farming within the Waikato and Waipā River catchments.
Rule 3.5.10.2	*Add new clause (v) to Rule 3.5.10.2:*

Controlled Activity Rule - Take, Diversion and Discharge of Water Pumped from Existing Drainage and Flood Control Schemes	(v) In the case of the Waikato and Waipā River catchments, measures that recognise and provide for the objectives in Chapter 3.11.

3.6 Damming & Diverting	
Objective 3.6.2 (a)	*Amend Objective 3.6.2:* (a)….in Sections 3.1.2 and 3.11.1
Principal Reasons for Adopting the Objectives	*Amend first sentence:* … in Sections 3.1.2 and 3.11.1 and for….

3.7 Wetlands	
Objective 3.7.2	Amend the wording: Refer to Objectives 3.31.2 and 3.11.1 Objective 5
Policies 3.7.3 Explanation and Principal Reasons	*Add a sentence at end of Explanation and Principal Reasons:* For Whangamarino Wetland refer also to Section 3.11.1 Objective 5 and Section 3.11.2 Policy 16.
Rule 3.7.4.6 *Advisory note* *Discretionary Activity Rule - Creation of New Drains and Deepening of Drain Invert Levels*	*Amend advisory note first bullet:* *….Policy 1 of Section 3.7.3 and for Whangamarino Wetland, Section 3.11.1 Objective 5 and Section 3.11.2 Policy 16.*
Rule 3.7.4.7 Discretionary Activity Rule – *Drainage of Wetlands*	*Amend advisory note first bullet:* *…Policy 1 of Section 3.7.3 and for Whangamarino Wetland, Section 3.11.1 Objective 5* and *Section 3.11.2 Policy 16.*
Explanation and Principal Reasons for Adopting Methods 3.7.4.1 to 3.7.4.7	*Amend first para:* *…to achieve Objectives 3.1.2 and 3.11.1 Objective 5…..Other methods in Chapters 3.4, 3.5, 3.6, 3.11…..*

3.8 Drilling	
3.8.2 Objective	*Amend Objective 3.8.2 (a):* a) … in sections 3.1.2 and 3.11.1

3.9 Non-Point Source Discharges	
New section proposed	*Add a new para after the Background and Explanation section:* **The Relationship between Chapter 3.9 and Chapter 3.11** With regard to the Waikato and Waipā River catchments, the objectives, policies, and methods (including rules) in this chapter should be read in conjunction with the provisions of Chapter 3.11. Where there is any inconsistency between this Chapter and Chapter 3.11, the provisions of Chapter 3.11 prevail.
Objective 3.9.2	*Amend Objective 3.9.2:* *….Objectives 3.1.2 and 3.11.1*
Explanation and Principal Reasons for Adopting the Policies	*Amend last sentence of last para under Policy 2:* *… Lake Taupo and Waikato/Waipā River catchments….as detailed in Sections 3.10 and 3.11 respectively.*
Rule 3.9.4.11 *Permitted Activity Rule - Fertiliser Application*	*Add opening words:* *Except as otherwise provided for, or restricted by an approved Farm Environment Plan, in accordance with the provisions and requirements of Chapter 3.11, (which applies in the Waikato and Waipā River catchments) the discharge of fertiliser…*
Explanation and Principal Reasons for Adopting Methods	*Add to end of first para:* *For the Waikato and Waipā River catchments – refer also to provisions in Chapter 3.11.* *Add to end of Method 3.9.4.7:* *Refer to Chapter 3.11 for stock exclusion rules that apply in the Waikato and Waipā River catchments.* *Add to middle of Method 3.9.4.10:* *Apart from within the Lake Taupo Catchment and Waikato and Waipā River catchments, Waikato Regional ……*

4.2 River and Lake bed structures	
4.2.2 Objective	*Amend Objective 4.2.2 (b):* ….Objectives 3.1.2 and 3.11.2.
4.2.3 Policy 2 (Management of Structures)	*Amend 4.2.3 Policy 2 (b):* …in Sections 3.2.3 and 3.11.2…

Rule 4.2.8.2 *Controlled Activity Rule - Bridges*	*Amend Rule 4.2.8.2 matter (vii):* …Water Management Class in this Plan and in the case of the Waikato and Waipā River catchments, the relevant water quality objectives in Chapter 3.11.
Rule 4.2.8.3 *Restricted Discretionary Activity Rule - Bridges*	*Amend Rule 4.2.8.3 matter (xi*): …Water Management Class in this Plan and in the case of the Waikato and Waipā River catchments, the relevant water quality objectives in Chapter 3.11.
Rule 4.2.9.3 *Controlled Activity Rule - Culverts for Catchment Areas Not Exceeding 500 Hectares*	*Amend Rule 4.2.9.3 matter (xii):* *…Water Management Class in this Plan and in the case of the Waikato and Waipā River catchments, the relevant water quality objectives in Chapter 3.11.*
Rule 4.2.10.1 *Permitted Activity Rule - Discharge and Intake structures*	*Amend Rule 4.2.10.1 condition (n):* *…Water Management Classes in Section 3.2.4 of this Plan and in the case of the Waikato and Waipā River catchments, the relevant water quality objectives in Chapter 3.11.*
Rule 4.2.11.2 *Restricted Discretionary Activity Rule - Fords*	*Amend Rule 4.2.11.2 matter xi):* *…Water Management Classes in this Plan and in the case of the Waikato and Waipā River catchments, the relevant water quality objectives in Chapter 3.11.*
Rule 4.2.16.1 *Controlled Activity Rule - Channel Training Structures*	*Amend Rule 4.2.16.1 matter (xi):* *…Water Management Classes and in the case of the Waikato and Waipā River catchments, the relevant water quality objectives in Chapter 3.11.*
Rule 4.2.20.3 *Controlled Activity Rule - Removal or Demolition of Structures*	*Amend Rule 4.2.20.3 matter (x):* *…Water Management Classes in Section 3.2.4 of this Plan and in the case of the Waikato and Waipā River catchments, the relevant water quality objectives in Chapter 3.11.*

4.3 River and Lake Bed Disturbances	
4.3.1 Issue 4	*Amend 4.3.1 Issue 4 (c):* ….inconsistent with Chapters 3.1 and 3.11

4.3.2 Objective	*Amend Objective 4.3.2 (b):* …with objectives in Chapters 3.1 and 3.11 *Amend Objective 4.3.2 (l):* …with objectives in Chapters 3.1 and 3.11
4.3.3. Policy 1 (Bed and Bank Alterations and Extraction of Sand, Gravel and Other Bed Material)	*Amend 4.3.3. Policy 1 (b):* …in Section 3.2.3 and the objectives in Section 3.11.1, or….
4.3.3 Policy 3 (Clearance of Vegetation)	*Amend 4.3.3 Policy 3 (a):* …in Chapters 3.2 and 3.11
Explanation and Principal Reasons for Adopting the Policies	*Add to the end of the paragraph relating to Policy 4:* For the Waikato and Waipā River catchments, regulatory provisions are set out in Chapter 3.11.
Method 4.3.5.3 *Livestock access*	*Add a new first sentence:* The Waikato and Waipā River catchments are excluded from this method and are addressed in Chapter 3.11.
Rule 4.3.5.4 *Permitted Activity Rule - Livestock on the Beds and Banks of Priority One Water Bodies*	*Amend opening words of Rule 4.3.5.4:* …any water body within the Waikato and Waipā River catchments or any water body mapped in the …..
Rule 4.3.5.4 *Advisory Note*	*Add a new first bullet point:* • Controls on livestock in the Waikato and Waipā River catchments are set out in Chapter 3.11.
Rule 4.3.5.5 *Discretionary Activity Rule - Livestock on the Beds and Banks of Priority One water Bodies*	*Amend opening words to rule 4.3.5.5:* … Livestock Exclusion Area where that Livestock Exclusion Area is outside the Waikato and Waipā River catchments:
Rule 4.3.5.5 *Advisory Note*	*Add a new first bullet point:* • Controls on livestock access to water bodies in the Waikato and Waipā River catchments are set out in Chapter 3.11.

4.3.5.6 *Non-Complying Activity - Livestock on the Beds and Banks of Rivers and Lakes*	*Amend opening words to Rule 4.3.5.6:* Except as provided for in Rules 4.3.5.4 and 4.3.5.5 or within the Waikato and Waipā River catchments, the rules set out in Chapter 3.11, …
Rule 4.3.5.6 Advisory Note	*Add a new first bullet point:* • Controls on livestock in the Waikato and Waipā River catchments are set out in Chapter 3.11.
Explanation and Principal Reasons for Adopting Methods	*Add a new first sentence:* The access of stock to waterbodies in the Waikato and Waipā River catchments are addressed in Chapter 3.11.
Rule 4.3.6.2 *Controlled Activity Rule - Extraction of Bed Material and Disturbance of River and Lake Beds associated with Lawfully Established Structures*	*Amend 4.3.6.2 matter xiii):* … Water Management Classes in this Plan and in the case of the Waikato and Waipā River catchments, the water quality objectives in Chapter 3.11.

5.1 Accelerated Erosion	
Background and Explanation	*Add a new paragraph after the paragraph entitled Background and Explanation:* **Relationship between Chapter 5.1 and Chapter 3.11**. Within the Waikato and Waipā River catchments, the diffuse discharge of sediment to water as a result of the use of land for farming is regulated by Chapter 3.11. Those requirements are separate to and distinct from the matters regulated in Chapter 5.1. The requirements of Chapter 5.1 and 3.11 must, therefore, be read together.
5.1.2 Objective	*Amend 5.1.2(b):* …Objectives 3.1.2 and 3.11.2
5.1.4.11 *Permitted Activity Rule - Soil Disturbance, Roading and Tracking and Vegetation Clearance*	*Add new advisory note:* With regard to the clearance of vegetation or planted production forest in the Waikato and Waipā River catchments, note that subsequent land use may be regulated by Rule 3.11.4.9.

5.1.4.12 *Permitted Activity Rule - Soil Cultivation Adjacent to water Bodies*	*Amend opening statement:* Except as controlled by rules 7.2.6.1 and 7.2.6.2, or in the Waikato and Waipā River catchments, as required by Schedule C of Chapter 3.11, or by an approved Farm Environment Plan developed under the provisions of Chapter 3.11, soil cultivation not less than…
5.1.4.13 *Discretionary Activity Rule - Soil Disturbance, Roading and Tracking and Vegetation Clearance*	*Add to the beginning of Clause 2:* Except as allowed by an approved Farm Environment Plan developed under the provisions of Chapter 3.11 ~~S~~soil cultivation… *Add new advisory note:* With regard to the clearance of vegetation or planted production forest in the Waikato and Waipā River catchments, note that subsequent land use may be regulated by Rule 3.11.4.9.
5.1.4.14 *Controlled Activity Rule - Soil Disturbance, Roading and Tracking and Vegetation Clearance, Riparian Vegetation Clearance in High Risk Erosion Areas*	*Add an advisory note:* *With regard to the clearance of vegetation or planted production forest in the Waikato and Waipā River catchments, note that subsequent land use may be regulated by Rule 3.11.4.9.*
5.1.4.15 *Discretionary Activity Rule - Soil Disturbance, Roading and Tracking and Vegetation Clearance, Riparian Vegetation Clearance in High Risk Erosion Areas*	*Add an advisory note:* *With regard to the clearance of vegetation or planted production forest in the Waikato and Waipā River catchments, note that subsequent land use may be regulated by Rule 3.11.4.9.*
Explanation and Principal Reasons for Adopting Methods	*Add to end of para that deals with Method 5.1.4.5:* *Within the Waikato and Waipā River catchments, there are policy and regulatory provisions that require the development of Farm Environment Plans for some land uses (refer Chapter 3.11).* *Add to end of para that deals with Method 5.1.4.9:* *A regulatory approach has been introduced for the Waikato and Waipā River catchments in Chapter 3.11.*

5.2 Discharges onto or into land	
Integration with Water and Air Management	*Add to para 3:* …discussed in Chapters 3.5 and 3.11.
5.2.2 Objective	*Amend clause b):* …in Section 3.1.2 or the objectives for the Waikato and Waipā River catchments in Section 3.11.1.
5.2.3 Policy 2 Other Discharges Onto or Into Land	*Amend 5.2.3 Policy 2(b):* *…in Sections 5.1.3 and 3.11.2* *Amend 5.2.3 Policy 2(c):* *… in Section 3.2.3 3 or in the Waikato and Waipā River catchments, the water quality objectives in Section 3.11.1*
Explanation and Principal Reasons for adopting Methods 5.2.5.1 to 5.2.5.8	*Add as a last sentence to the opening paragraph:* *For activities in the Waikato and Waipā River catchments, refer also to the objectives and policies in Chapter 3.11.*

5.3 Contaminated Land	
Objective 5.3.2	*Amend clause b):* …in Sections 3.1.2 and 3.11.1
Principal Reasons for adopting the Objective	*Amend 3rd para:* ….in Chapters 3.1, 3.11 and 6.1.