

SUBMISSION ON

Horizons One Plan - Proposed Plan Change 2 (Existing Intensive Farming Land Uses)

21 October 2019

TO: Horizons Regional Council

NAME OF SUBMITTER: Horticulture New Zealand



CONTACT FOR SERVICE:

Michelle Sands
Manager – Natural Resources and Environment
Horticulture New Zealand
PO Box 10-232 WELLINGTON
Ph: 04 470 5664
Email: Michelle.Sands@hortnz.co.nz

Introduction

Horticulture New Zealand (HortNZ) thanks Horizons Regional Council (Council) for the opportunity to submit on proposed Plan Change 2 – Existing Intensive Farming Land Uses (PC2) and welcomes any opportunity to work with Horizons Regional Council and to discuss our submission.

HortNZ could not gain an advantage in trade competition through this submission.

HortNZ wishes to be heard in support of our submission and would be prepared to consider presenting our submission in a joint case with others making a similar submission at any hearing.

The details of HortNZ's submission and decisions we are seeking from Council are set out below.

Background to HortNZ

HortNZ was established on 1 December 2005, combining the New Zealand Vegetable and Potato Growers' and New Zealand Fruitgrowers' and New Zealand Berryfruit Growers Federations.

HortNZ advocates for and represents the interests of 5000 commercial fruit and vegetable growers in New Zealand, who grow around 100 different crop types and employ over 60,000 workers. Land under horticultural crop cultivation in New Zealand is calculated to be approximately 120,000 hectares.

The horticulture industry value is \$5.7 billion and is broken down as follows:

Industry value	\$5.7bn
Fruit exports	\$2.82bn
Vegetable exports	\$0.62bn
Total exports	\$3.44bn
Fruit domestic	\$0.97bn
Vegetable domestic	\$1.27bn
Total domestic	\$2.24bn

For the first time New Zealand's total horticultural produce exports in 2017 exceeded \$3.44bn Free On Board value, 83% higher than a decade before.

It should also be acknowledged that it is not just the economic benefits associated with horticultural production that are important. The rural economy supports rural communities and rural production defines much of the rural landscape. Food production values provide a platform for long term sustainability of communities, through the provision of food security.

HortNZ's mission is to create an enduring environment where growers prosper. This is done through enabling, promoting and advocating for growers in New Zealand to achieve the industry goal (a \$10 billion industry by 2020).

HortNZ's Resource Management Act 1991 Involvement

On behalf of its grower members HortNZ takes a detailed involvement in resource management planning processes around New Zealand. HortNZ works to raise growers' awareness of the Resource Management Act 1991 (RMA) to ensure effective grower involvement under the Act.

The principles that HortNZ considers in assessing the implementation of the RMA include:

- The effects based purpose of the RMA;
- Non-regulatory methods should be employed by councils;
- Regulation should impact fairly on the whole community, make sense in practice, and be developed in full consultation with those affected by it;
- Early consultation of land users in plan preparation;
- Ensuring that RMA plans work in the growers interests both in an environmental and sustainable economic production sense.

SUBMISSION

The submission is structured in four parts:

- Part A - A summary and overview of horticulture within the Manawatu-Whanganui region, the value of highly productive land and the relationship of this policy with other key policies and issues
- Part B - A discussion of the One Plan and the basis for the relief sought
- Part C - Detailed submission points (on provisions)
- Part D - Tracked-change amendments to give effect to the relief sought

HortNZ acknowledges that there may be aspects of our submission that are not applicable or appropriate for other primary sectors. In that regard, we remain willing to work with the Council and other sectors to further refine proposals to achieve an overall framework that is applicable for all intensive land uses.

PART A

Horticulture in Horizons Manawatu Region

The Horizons (Manawatu-Wanganui) region is an important part of the national food production system. There is more than approximately 4,000 ha of horticultural land in the region, approximately 3,647 ha of which is planted in vegetables (Fresh facts, 2018). Horticultural crops include potatoes, broccoli, lettuce, onions, peas, silverbeet, carrots, asparagus, cauliflower, cabbage, pumpkin and kiwifruit.

A KPMG report determined that (based on 2014 figures) the Manawatu-Wanganui region produced 22% of broccoli and cauliflower, 20% of cabbage and 15% of carrots and parsnips (KPMG, 2017).

We estimate there are 100 vegetable growers in the region, with 40 of these located in the Target Water Management Sub Zones.

In the Horowhenua Freshwater Management Unit (FMU), we estimate that there is 1,100 ha of vegetable growing land, with 650 ha of this in the Target Water Management Sub Zones.

National Policy Direction

Horticulture plays an essential role in providing New Zealanders with a reliable supply of fruit and vegetables. There has been a suite of national policy which have come into force or is currently proposed relating to freshwater management, urban development and highly productive land; all of which are issues of relevance to horticulture. This provides national direction which is relevant to the Horizons One Plan.

Key constraints to horticultural operations include access to land, water, nutrients, climate, staff and infrastructure. This is due to a number of factors including competition for highly productive land for housing, the availability of highly reliable water sources, and water quality constraints (KPMG, 2017). These aspects can be heavily influenced by the policy environment.

In HortNZ's view, a key value that the proposed National Policy Statement for Highly Productive Land (NPSHPL) seeks to protect is food production. This also links with urban development and water policy, as well as health and climate change policies.

Importance of Highly Productive Land for Horticulture

We recognise that land is a finite natural resource that needs to be managed to meet the needs of people now and those of future generations. In our view, sustainable food production is the primary value associated with this resource. It is important to emphasize that while soil is not the only factor, it is the most fundamental of the building blocks that creates highly productive land.

Not all land is suitable for food production; this makes the use of highly productive land important. Across the country, horticulture occupies only 120,000 ha, with approximately 70,000 ha in fruit production and 50,000 ha in vegetable production. Vegetables are grown throughout New Zealand to provide a year-round supply of fresh vegetables.

In our opinion, the proposed NPSHPL demonstrates the importance of considering highly productive land as part of resource management and emphasises that it is important that highly productive land is able to be used for the primary productive land use with the highest productive capacity. Currently, proposed Plan Change 2 caps the productive use of LUC I land at dairy farming, stripping the productive capacity of a nationally important vegetable growing hub that provides 20% (KPMG, 2017) of New Zealand's green vegetables.

Relationship with Urban and Lifestyle Development

Policies to manage ad-hoc urban and lifestyle development are essential to maintain highly productive land resource for future generations.

Urban and lifestyle development within horticultural areas results in increased pressure on crop rotations, restrict orchard expansion, increased land prices, and increased social tension due to complaints from neighbours about horticultural activities. These pressures threaten the productivity of land, and the ability of land to produce food.

Urban populations compete for limited water resources with highly productive uses. In our view, only that proportion of new municipal supplies that relates to drinking water and sanitation should have priority over other uses. Municipal supplies are more likely to be able to provide water storage and reticulation and therefore are not as reliant as highly productive land on local water resources. Without water, the productive capacity of land is greatly reduced.

We consider that it is important that the proposed NPSHPL and the National Policy Statement for Urban Development (NPSUD) are developed together, and relate to the three waters policy that is underway.

HortNZ considers it is important that Horizons considers the direction from this draft national policy, and reflect on how regional policy can be better aligned.

Implementing National Freshwater Policy and NES FW

The National Policy Statement for Freshwater Management (NPSFM) requires councils to identify freshwater management units, to work with communities, iwi, hapu and tangata whenua to establish values and outcomes, and a target attribute states and to set limits and actions to achieve limits over time. The process for guiding freshwater management is the Te Mana o Te Wai concept, which recognises the interlinked health of water, people and the environment.

The Horizons One Plan is not compliant with the NPSFM, Plan Change 2 is a transitional plan change. In our view, Plan Change 2 should focus on ensuring all farmers and growers

are operating at good management practice rather than driving land use change. The longer-term planning, that might include land use change should be undertaken under the NPSFM process.

The proposed National Environmental Standard for Freshwater (NES FW), provides national direction on rules for regions like Horizons, that have not yet undertaken the NPSFM process. This process recognises vegetable growing is different to pastoral farming. It provides for crop rotation and it supports the use of audited farm environment plans.

HortNZ considers it is important that Horizons considers the direction from this draft national policy, and reflect on how regional policy can be better aligned.

Achieving Climate Change Goals

HortNZ has been actively engaged in submissions on national policy regarding climate change as horticultural development provides an opportunity to reduce agricultural emissions.

The Paris Agreement aims to limit global warming to 1.5 degrees and foster low emissions development in manner that does not threaten food production. The Eat-Lancet Commission report found that food is the single strongest lever to optimize human health and environmental sustainability, and without action the world risks failing to meet the United Nations Sustainable Development Goals and the Paris Agreement. The report recommended a transformation to healthy diets by 2050 requiring substantial dietary shifts, with global consumption of fruits, vegetables, nuts and legumes having to double, and consumption of foods such as red meat and sugar being reduced by more than 50%.

"The food we eat and how we produce it will determine the health of people and planet, and major changes must be made to avoid both reduced life expectancy and continued environmental degradation." (Eat-Lancet, 2019).

The Intergovernmental Panel on Climate Change (IPCC) Climate Change and Land report recognizes the global food system is under pressure from non-climate stressors (e.g., population and income growth, demand for animal-sourced products), and from climate change. These climate and non-climate stressors are impacting the four pillars of food security (IPCC, 2019).

The contribution New Zealand makes to global food security, like our contribution to emissions, is relatively small. However, improving the global food system so it contributes more to the health of people, and less to climate change, requires global action.

New Zealand's first priority in tackling food security, must be in tackling national food security. Currently 1 in 5 children in New Zealand live in food insecurity. Ensuring that we have a regulatory system that continues to enable growers to provide healthy food at an affordable price is essential

HortNZ understands that regional councils do not have a role in regulating greenhouse gas emissions, however regional councils do have a role in adaptation. In our view one of the most important adaptation challenges the world and New Zealand faces is how to adapt our diets so we can provide national and contribute to global food security in changing climate.

Planning for a National Food System

Horticulture as an industry is unique in that highly productive soils need to be considered at a broader scale, the value of highly productive land and the growing hubs that rely on this resource cannot be considered in spatial isolation at the district or regional level. The land is

part of the national food production system around which there is benefit in direct RMA policy and a national food strategy.

HortNZ calls for a National Food Policy to integrate the various policies where fruit and vegetables are key to achieving desired outcomes. This is required to assist in integrating other national direction (NPSHPL, NPSFM, Climate Change Policy), recognise the efficiency of New Zealand domestic and export food production and the benefits of food production (across all primary sectors) – including health, economic, climate change benefits.

The lack of a clear and achievable consenting pathway for commercial vegetable growing has put at risk food supply from a region critical in the national food supply system. This has occurred because Horizons have not considered the national impacts of their policies, or recognised the national importance of parts of the region for the national food system.

In our view the Freshwater Futures process offers an opportunity to consider the value of commercial vegetable growing at the FMU, region and national scale.

PART B

One Plan

HortNZ recognises the significant challenges in putting in place a workable land and water management regime for intensive farming and commercial vegetable growing within the existing framework of the Horizons One Plan. A plan that seeks to maximise opportunities for the environment, economy and communities within Horizons, but at the same time ensuring alignment with the mandatory directives of the Resource Management Act 1991 (RMA) and higher order planning instruments such as the National Policy Statement for Freshwater Management 2014 (updated 2017) (NPSFM).

The Horizons One Plan is now 12 years old and at the time it was developed the national freshwater regime looked substantially different than it does today. Likewise, there are significant changes that are likely to be in place within the next 12 months. While it is acknowledged that PC2 is designed to be transitional, it is important that it aligns to both the current state of play at the national level and, to the extent possible, is future proofed to align with imminent changes.

Commercial vegetable growing has always been an uneasy fit within the current framework which in HortNZ's opinion is the result of commercial vegetable growing having been defined as Intensive Farming by an Environment Court decision rather than by robust assessment through a Section 32 process. The lack of a clear and achievable consenting pathway for commercial vegetable growing has put food supply, from a region critical in the national food supply system, at risk.

Notwithstanding the history, HortNZ generally supports the direction of PC2, particularly the intention to provide a workable consenting framework for commercial vegetable growing and reinforce Good Management Practices as part of intensive farming land use activities.

However, the framework developed by the Council and included in PC2 for commercial vegetable growing is not achieving the outcomes sought and risks to existing and future food production remain. It is HortNZ's opinion that PC2:

1. Fails to provide clarity as to what is and what is not commercial vegetable growing.
2. Highlights structural and policy deficiencies in the One Plan Regional Policy Statement and One Plan Regional Plan in addressing particular issues associated with commercial vegetable growing activity; and
3. Does not equitably provide a workable Controlled activity status for commercial vegetable growing in Horizons, compared to other farming activities.
4. Does not acknowledge the fundamental inefficiencies and ineffectiveness of OVERSEER as a tool for calculating N Budgets for commercial vegetable growing.
5. Does not adequately consider the growth in commercial vegetable growing in Horizons since the plan took legal effect for this activity (9 May 2013).
6. Does not adequately provide for commercial vegetable growing to meet the vegetable consumption demands of a growing population, and indeed prohibits this.
7. Is inconsistent with the National Policy Statement for Freshwater Management 2014 (amended 2017).
8. Is inconsistent with recent government Essential Freshwater policy announcements, in particular the newly proposed provisions for commercial vegetable production within the proposed National Environmental Standard for Freshwater Management.

As a consequence of this, PC2:

1. Compromises the ability of the district community, regional community and New Zealanders to access fresh local vegetables at affordable prices;
2. Does not represent the most appropriate plan provisions in terms of Section 32 of the RMA;
3. Is contrary to the RMA, in particular Part 2.

RMA

Regional councils have responsibilities under the RMA and give effect to the Act through regional policy statements and plans.

The RMA is the primary legislation that guides regional plans in managing water quality. In summary:

- Section 5 states that local authorities have a responsibility to sustainably manage natural and physical resources while “safeguarding the life-supporting capacity of air, water, soil and ecosystems”.
- Section 30 outlines the functions that regional councils must undertake to give effect to the RMA. This includes:
 - The control of the use of land for the purposes of the maintenance and enhancement of the quality of water in waterbodies and coastal water (s30(1)(c)(ii); and
 - The control of discharges of contaminants into or onto land, air, or water and discharges of water into water (s30(1)(f)); and
 - If appropriate, the establishment of rules in a regional plan to allocate the capacity of air or water to assimilate a discharge of contaminant 30 (1)(fa)(iv).
- Section 70 sets a baseline with respect to discharges to waterways, including a requirement that any permitted activity rule shall not allow for the adverse effects specified in s70 (for example, conspicuous change in colour or visual clarity).
- Section 2 defines relevant terms including discharge, contaminant, water, fresh water and water bodies.
- Schedule 1 outlines the process that must be followed when any part of a policy statement or plan is reviewed.
- Section 32 outlines the requirements for preparing and publishing the evaluation report that supports this Plan Change.

Promotion of the sustainable management of natural and physical resources is the purpose of the Act (Part 2) with sustainable management meaning:

managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while-

(a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and

(b) safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and

(c) avoiding, remedying, or mitigating any adverse effects of activities on the environment.

It is the opinion of HortNZ that that PC2 has a fundamental conflict with achieving Part 2. That conflict occurs where PC2 fails to provide a clear pathway for commercial vegetable growing that relies on natural resources to deliver domestic food supply for the reasonable foreseeable needs of future generations from a region critical in the national food production system.

It is HortNZ's strong view that that pathway can be provided while safeguarding the life-supporting capacity of water, soil, and ecosystems; and avoiding, remedying, or mitigating any adverse effects of activities on the environment.

RPS – Recognition of Food Value

The Section 32 analysis supporting PC2 provides a description of the Regional Policy Statement and relevance as follows:

The Regional Policy Statement sets out the regionally significant resource management issues and outlines the objectives, policies and methods that will be used to address these issues.

Chapter 5 identifies water quality degradation as a key issue. Run-off and leaching from agricultural land is identified as one of the principle causes of this water quality issue.

In broad terms, the water quality objective of the RPS is to maintain good water quality and enhance poor water quality. The policy framework to support this is set out in Policies 5-2, 5-3, 5-4, 5-5 and 5-6. The spatial units for water quality management are Water Management Sub-zones. Surface water management values and management objectives are set for each Water Management Sub-zone and numerical surface water quality targets are set for key contaminants in each Sub-zone.

Intensive farming land use activities are dealt with in Policies 5-7 and 5-8. They provide for active management of existing intensive farming land use activities in targeted Water Management Sub-zones and new intensive farming land use activities everywhere in the Manawatū-Whanganui Region. Targeted Water Management Sub-zones are those where land use activities are a significant contributor to elevated contaminant levels in groundwater and surface water. The contaminants of concern are identified in the RPS as nutrients (nitrogen and phosphorus), pathogens and sediment.

This description, and indeed the Section 32 analysis, has not adequately accounted for the value of domestic food supply. This value is recognised through the RPS in Objective 5-1 and in Policy 5-1 (Table 5.2) as a Surface Water Management Value relating to a Values Group of 'Water Use'. The Management Objective identifying the issue for domestic food supply is an issue of water quality "*the water is suitable for domestic food production*" (i.e. if the water is clean enough for irrigation). This aligns with National Value and Uses for Freshwater in the NPSFM. The value of domestic food supply from the perspective of the productive capacity of the region is itself not recognised here but is in Schedule B and in

Policy 5-8 concerning the regulation of intensive farming land use activities affecting groundwater and surface water quality.

Domestic food supply is defined in the Glossary and *means crops grown for human consumption under the Commodity Levies (Vegetables and Fruit) Order 2007 (SR2007/161)*. Schedule B Surface Water Management Values, is identified as a component of Part II - the Regional Plan and it is here where Surface Water Management Values are listed by Sub-zone and under Table B.13 where a particular production value is listed (i.e. Seed Potato Production, Vegetable Production). It is not particularly clear if this is a recognition of the value of domestic food supply from the perspective of the productive capacity of the Water Management Zone and Sub-zone itself, or if the issue is that water is suitable for domestic food production. The only place where the linkage to productive capacity is achieved is in Policy 5-8 in regard to nutrient management:

Policy 5-8: Regulation of intensive farming land^ use activities affecting groundwater and surface water^ quality (a) Nutrients (i) Nitrogen leaching maximums must be established in the regional plan which:....

(C) recognise the productive capability of land in the Water Management Sub-zone

The rest of Policy 5-8 is irrelevant to commercial vegetable growing, such as the Dairy Farm Overseer Leaching maximums referenced in the policy which are not relevant to commercial vegetable growing, and should not be used as a limit for this activity. In particular, the clauses managing faecal contamination and sediment are largely irrelevant to commercial vegetable growing, discharge of this nature would be better managed with commercial vegetable growing relevant provisions. It is clear that almost all the water bodies are affected by elevated levels of E. coli. This is not a contaminant discharged by commercial vegetable growing activities, but E. coli in surface water impacts on the suitability of water for irrigating vegetable crops for human consumption. In taking a multi contaminant view of water quality issues for the region and considering the particular values associated with domestic food supply, it is HortNZ's opinion that commercial vegetable growing is a better rural production land use in some catchments.

This lack of clarity creates a deficiency in the One Plan in the way it manages commercial vegetable growing. The issue for PC2 is the inability to navigate up through the higher order policy and objective framework for support for the particular policy and method approach proposed in PC2. The Section 32 states that "*the proposed provisions are intended to respond to the reported negative economic impact of the status quo on unconsented commercial vegetable growing businesses and on the district. It should also mitigate broader concerns about the potential impact of a loss of vegetable growing businesses on New Zealand's food security and New Zealander's expectations of fresh healthy locally grown produce*". Therefore, while here the value of domestic food supply from the perspective of the productive capacity of the region is acknowledged and policy and methods for consenting proposed, there is no clear higher order policy in the regional policy statement addressing the particular issues associated with the activity that warrants the tailored response.

HortNZ consider that this policy deficiency needs to be addressed through PC2.

One Plan Regional Plan Objectives and Policies

The regional plan General Objectives are as follows:

Objective 12-1: Resource management in the Region

(a) The regulation of activities in a manner which maximises certainty and avoids unnecessary costs on resource users and other parties.

(b) The regulation of activities in a manner which gives effect to the provisions of Part I of this Plan, the Regional Policy Statement.

Objective 12-2: Consent duration, review and enforcement

(a) The provisions of the RMA dealing with the duration of resource consents, review of consent conditions, and enforcement procedures must be implemented in a manner that provides the maximum reasonable certainty to resource users, affected parties and submitters.

(b) The Regional Council will provide user-friendly consents of appropriate duration and will carefully monitor and manage compliance

The current plan framework has failed to deliver on Objective 12-1(a). HortNZ supports the intent of PC2 to correct this and suggests that in terms of commercial vegetable growing, this can be achieved in a consent framework that provides:

- Policy that recognises the regional importance of commercial vegetable growing to domestic food security and supports commercial vegetable growing.
- Methods that include:
 - A permitted activity for commercial vegetable growing in areas and at a scale that reflects actual and potential environmental impacts of the activity.
 - A controlled activity consent pathway for commercial vegetable growing in an FMU and within water management sub-zones where the enterprise area or overall intensity of the activity at an FMU scale has not changed since notification of PC2 and where and relevant conditions are met. The limit being a land area cap.
 - A restricted discretionary activity pathway for commercial vegetable growing in an FMU and within water sub-zones where the collective commercial vegetable growing area is less than the 2019 area +10%. Providing for expansion linked to domestic food supply value and outside of target catchments.
 - A discretionary activity status for all other commercial vegetable growing to provide for expansion over and above the RDA capped area, or for growers who want to go beyond audited BMP in sensitive catchments anticipating the “extra” mitigations that will be required over and above BMP in the Freshwater Future Plan process.

The controlled activity status proposed achieves Policy 12-1 and addresses activities that can have more than minor adverse effects on the environment, but where the need for site specific management can be confined to a narrow list of matters that can be addressed by way of consent conditions on a consent that must be granted.

The discretionary activity status proposed provides the Regional Council with discretion to decline consent owing to the potentially significant level of adverse effects, and where it is not practicable to restrict the exercise of the Regional Council's discretion to a specified list of matters.

The controlled activity pathways proposed by HortNZ enable Council to tailor consent durations to the two particular controlled activity pathways, providing longer duration consents to activities with more certain activities therefore providing for Objective 12-2 and related Policy 12-5 regarding consent duration.

Turning to the particular issues of regional water quality and the effect of rural production activities. Objective 14-1 addresses the management of discharges to land and water and land uses affecting groundwater and surface water quality. The objective is as follows:

The management of discharges onto or into land (including those that enter water) or directly into water and land use activities affecting groundwater and surface water quality in a manner that:

(a) safeguards the life supporting capacity of water and recognises and provides for the Values and management objectives in Schedule B,

(b) provides for the objectives and policies of Chapter 5 as they relate to surface water[^] and groundwater quality, and

(c) where a discharge is onto or into land, avoids, remedies or mitigates adverse effects[^] on surface water[^] or groundwater.

While the existing One Plan framework has deficiencies in clearly providing for domestic food supply values at an RPS level, clearly the intent is to recognise the value of domestic food supply from the perspective of the productive capacity of the Water Management Zones and Sub-Zones listed in Schedule B and further defined in Table B.13. That being the case, the proposed N leaching approach of Plan Change 2 does not deliver the domestic food supply value in catchments where it is recognised as important.

It is the opinion of HortNZ that the higher order objective and policy framework should be amended to be address the particular resource management issues associated with commercial vegetable growing and this should inform the most efficient and effective method response. To achieve this there needs to be a specific policy framework for commercial vegetable growing rather than an attempt to retrofit this activity under the current structure for intensive farming land use activities.

Plan Change 2 - Failure for CVG and Plan Change 2 Section 32 Analysis

As previously stated, it is the opinion of HortNZ that the Section 32 analysis has not adequately accounted for the value of domestic food supply and in doing so a viable pathway to consent commercial vegetable growing activity remains unavailable. This is inconsistent with other regional plans and the Proposed National Environmental Standards for Freshwater that have specifically recognised the values and issues associated with commercial vegetable growing, acknowledged it does not fit well with plans that bundle this activity with other rural production activities and therefore demands a separate planning pathway.

The Section 32 sets out the existing structural issues for intensive farming (including commercial vegetable growing). That assessment is not repeated here but in brief is a situation where very few existing intensive farming activities can meet the Nitrogen Leaching limits set out in Table 14.2, and it is almost impossible for those that do not meet the Table to be granted resource consent.

PC2 proposes:

- A recalibration of the Table 14.2 Nitrogen Leaching limits to reflect improvements in the nutrient modelling software tool, OVERSEER.
- Reinforcement of Good Management Practices as part of intensive farming land use activities; and
- Providing a workable pathway for landowners to apply for resource consent for existing intensive farming land use activities that cannot achieve Table 14.2 cumulative nitrogen leaching maximums.

While the intent is supported and HortNZ can see the changes as potentially workable for some activities. For commercial vegetable growing the existing deficiencies of the current plan remain.

HortNZ have concerns about the ability to accurately assess nutrient discharges from horticultural systems, specifically the deficiencies in OVERSEER to model horticultural crops and the uncertainty that exists about the reliability of other modelling tools.

In our view OVERSEER and other tools such as APSIM and Spasmo, may have use when establishing limits and undertaking catchment accounting, and may be useful for the Assessment of Environmental Effects (AEE). HortNZ support an assessment of the N loss rate within an AEE for a commercial vegetable growing operation when expanding an operation into a new area.

But we do not see any benefit in undertaking complex modelled N budgets annually as part of a Farm Environment Plan audit. While some growers have developed OVERSEER models for regulatory purposes there is a considerable number of work-arounds required¹. OVERSEER is not a reliable on-farm decision support tool for growers, the reliance on OVERSEER for PC2 is inefficient and ineffective.

A key concern for HortNZ is that even if OVERSEER or another approved model is used, the limits proposed in the recalibrated Table 14.2 cannot be achieved without significant onsite and offsite mitigations that are out of reach for most growers.

HortNZ would also like to ensure that the approach to limit-setting embodied in Table 14.2 has fixed and finite applicability. This reflects HortNZ's view that if nitrogen discharges from rural land is adversely affecting community-desired values for water quality, then land use capability (LUC) is not an appropriate basis to assess natural capital, that natural capital is not the only relevant consideration in determining appropriate nitrogen leaching rates, and that such approaches require the use of Overseer modelling results well outside recommended usage.

The Section 32 also states that PC2 provides a workable pathway for landowners to apply for resource consent for existing intensive farming land use activities that cannot achieve Table 14.2 cumulative nitrogen leaching maximums. This is clearly not the case for commercial vegetable growing with PC2 driving land use change away from commercial vegetable growing, when there is no evidence that would result in better chance of achieving objectives, particularly in the Horowhenua catchments.

¹ There are identified 21 "work-arounds" required to model commercial vegetable growing in OVERSEER

It is the opinion of HortNZ that the provisions proposed in PC2 are not the most efficient and effective to achieve the objectives of PC2. In that regard there is a deficiency in the Section 32.

Plan Change 2 is a transitional plan, and it is the opinion that much more can be achieved through working with growers with an enabling regulatory framework and a clearer vision of future regional land use and water quality outcomes. For commercial vegetable growing, the transitional nature of PC2 requires a focus on getting all growers up to Good Management Practice (GMP) and Best Management Practice (BMP) in Water Management Sub-zones and enable all growers to rotate their crops to maintain soil health. Our expectation is that the improvements required to meet the audited Farm Environment Plan would achieve reductions overall of more than 10%. Furthermore, PC2 should provide incentives (such as consent duration) to encourage growers to undertake further mitigations and move existing growing away into less sensitive parts of the FMU, and new growing outside of Water sub-zones in anticipation of Freshwater Futures.

Good management practice and Farm Planning for vegetable growing

For commercial vegetable growing, HortNZ supports addressing nitrogen losses via audited Farm Environment Plans. This approach is proposed within our proposed rules for commercial vegetable growing (Rules 14-2BX, 14-2CX, 14-2DX, 14-2EX in Part C and D) and addresses the need identified in the Section 32 report for PC2 to enable a return to “business as usual” regulation of existing intensive farming land uses under the RMA as soon as reasonably practicable by:

3. *Providing a workable pathway for landowners to apply for resource consent for existing intensive farming land use activities that cannot achieve Table 14.2 cumulative nitrogen leaching maximums*

This outcome, plus outcomes in proposed policies 5-8A and 14-x, can be achieved with a limit on the area of the commercial vegetable growing activity plus achievement of operating at GMP demonstrated via an audited Farm Environment Plan based on the HortNZ Code of Practice for Nutrient Management (v1.0 2014)². The HortNZ Code of Practice for Nutrient Management sets out how growers identify the environmental risks posed by nutrient use and then to manage those risks by implementing good management practices to reduce/minimise the risk of leaching.

In target Water Management Sub-zones where water quality is required to be enhanced, the activity would have to demonstrate that it was operating at BMP as described in the HortNZ Code of Practice for Nutrient Management (v1.0 2014).

The Farm Environment Plan audit reviews the nutrient management risk assessment, identified risks, current mitigations, proposed mitigations and action plan to determine if the property is operating at GMP or BMP, as required. The outcome of the audit of the nutrient management plan can be reported to Horizons Regional Council, in place of submitting the full nutrient management plan.

HortNZ has been working with growers in the Horowhenua FMU. **Appendix 1** illustrates the estimated vegetable growing land in the Horowhenua FMU (1135 ha). Growers on 993ha

² <http://hortnz.co.nz/our-work/natural-resources/code-of-practice-for-nutrient-management/> Z code of practice

(87%) have signed up to the NZ GAP Environment Management System (EMS) to have their Farm Environment Plans independently audited.

Good Agricultural Practice ("GAP") schemes are independently audited self-management assurance programmes which provide a pathway for members to demonstrate compliance with regulatory and market requirements via 3rd party audit of recognised standards (e.g. Food Act 2014). The role of GAP schemes is to set and/or adopt standards and to provide a pathway for members to demonstrate compliance with those standards (i.e. via 3rd party audit).

GAP standards in NZ horticulture are benchmarked to internationally recognised standards including GLOBALG.A.P. Integrated Farm Assurance standard version 5.2. GAP schemes are outcomes focused and operate within a risk-based integrated quality systems approach.

All certified growers are independently audited by the Joint Accreditation System of Australia and New Zealand ("JAS-ANZ") accredited Independent Verification Agencies (Certification Bodies), and they must continuously meet requirements of GAP standards to maintain certification (Figure 1).

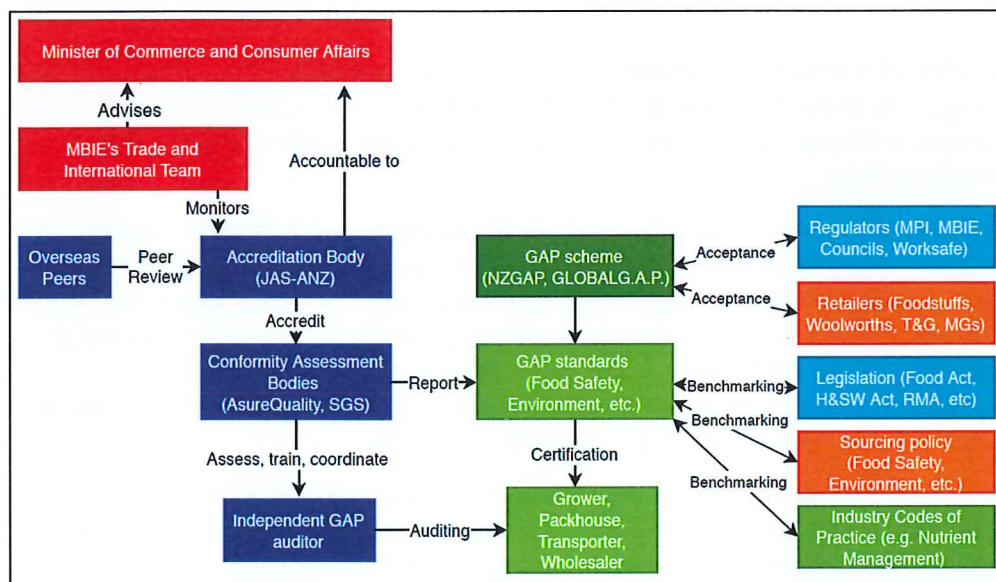


Figure 1: New Zealand Conformance Infrastructure for GAP certification

By way of illustration of this, Environment Canterbury has developed rules and an audit manual for council auditors, but has also recognised industry developed schemes with a credible governance, rules, assurance framework, auditors and audit processes. Currently, the only approved schemes in Canterbury are NZGAP and Synlait Lead with Pride.

HortNZ is working with growers to provide extension to growers within the Horowhenua FMU, to assist them, in understanding the good management and best management practice requirements so they will be in a position to update their Farm Environment Plans, and on farm management so it can meet the NZGAP EMS audit standards.

Our Freshwater Future (NPSFM process)

HortNZ welcome a comprehensive and collaborative process to achieve national freshwater requirements through a catchment-based approach, which is reflected in 'Our Freshwater Future'.

Peri-urbans areas are important for vegetables growing. Vegetable growing is labour intensive so needs to be located close to where workers live. Not all vegetables store well, and many need to be provided to market every day. Only some places in New Zealand are suitable for growing winter greens, one of these places is Horowhenua, this quality makes Horowhenua nationally important for domestic food supply.

The Horowhenua contains sensitive lakes and low land spring fed streams, as well as larger streams fed by the Tararua foothills. There are considerable areas of collectively owned Maori owned land, much of which is under-developed. There is collective Maori ownership of the bed of Lake Horowhenua and Hokio stream and the associated fishery. There are different iwi and hapu in the district. The community experiences high deprivation and unemployment and has rich cultural diversity, including a valued Chinese market garden history.

This is a very different catchment to others in the region, both in terms of the community and physical attributes; it is likely that it has a different set of values and outcomes which will be desired. We expect a different set of allocation priorities than the pastoral farming default allocation in the One Plan.

Strong investment in science is required urgently in the Horowhenua. Horizons Regional Council needs to develop an integrated water quality and hydrological model that includes the lakes – and considers all land and all discharges abstractions and discharges (eg. Rural and urban, intensive and extensive). This science is needed to determine a defensible and robust understanding of the catchments water allocation and discharge limits that will provide for the cultural, ecosystem, water quality and flow regime outcomes that are needed to deliver the compulsory national and local values and outcomes.

Strong investment is required urgently in a planning process to determine a suitable allocation regime that will enable the transition. The transition will include, investment in mitigation and innovation and will also likely include some land use change. A robust planning process is required in this catchment so an enduring plan can be developed, which includes priorities and timeframes so the transition occurs in a way that provides for the social, cultural, economic wellbeing of the local, regional and national community, now and in the future.

Part C

Submission on proposed objectives and policies

Provision	Support /oppose	Reason	Decision sought
Policy 5-7: Land use activities affecting groundwater and surface water quality	Oppose in part	<ul style="list-style-type: none"> Commercial vegetable growing should be recognised as a separate activity from other intensive farming land uses. 	<p>Amend Policy 5-7: Land use activities affecting groundwater and surface water quality to include:</p> <p><u>(bb) Recognise the particular domestic food production values associated with commercial vegetable growing and provide a tailored consenting pathway to manage associated effects groundwater and surface water.</u></p> <p>Refer to tracked changes in Part D.</p>
Policy 5-8: Management and regulation of intensive farming land use, activities affecting groundwater and surface water quality	Oppose	<ul style="list-style-type: none"> Commercial vegetable growing should be excluded from this policy The Dairy Farm Overseer Leaching maximums are not relevant to commercial vegetable growing, and should not be used as a limit for this activity. The technical work supporting One Plan and PC2 is insufficient to drive landuse change as proposed in the clause (iib) of this policy The clauses managing faecal contamination and sediment are largely irrelevant to commercial vegetable growing, discharge of this nature would be better managed with commercial vegetable growing specific provisions We support the Good Management Practice provision, but commercial vegetable growing specific GMP and BMP 	<p>Amend Policy 5-8: Management and regulation of intensive farming land use, activities affecting groundwater and surface water quality, to exclude commercial vegetable growing.</p> <p>Refer to tracked changes in Part D.</p>

		is proposed in an alternative commercial vegetable growing policy (Policy 5-8A).	
New Policy 5-8A Management and regulation of commercial vegetable growing, activities affecting groundwater and surface water quality	New policy	<ul style="list-style-type: none"> It is the opinion of HortNZ that the higher order objective and policy framework should be amended to be address the particular resource management issues associated with commercial vegetable growing and this should inform the most efficient and effective method response. To achieve this there needs to be a specific policy framework for commercial vegetable growing rather than an attempt to retrofit this activity under the current structure for intensive farming land use activities. 	<p>Insertion of a new policy, <u>Policy 5-8A Management and regulation of commercial vegetable growing, activities affecting groundwater and surface water quality</u>, that provides for commercial vegetable growing.</p> <p>The proposed policy wording is detailed in the track changed amendments included below in Part D.</p>
Method 5-12	Support in part	<ul style="list-style-type: none"> This method should focus on improvements from all land uses and all contaminants The method should link to the proposed commercial vegetable growing policy (Policy 5-8A) 	<p>Amend 'Description' to apply to all land users, as shown in the track change amendments (Part D) and below:</p> <p>Support initiatives by local communities, sector groups or tangata whenua which develop options for sustainable land use in the Region. Support for work in <i>Water Management Sub-zones</i>* where nitrogen leaching is an issue will be a priority in order to find viable options for <u>intensive farming land users to make improvements to water quality to contribute to achieving water quality targets over-time. that will have difficulty in achieving the cumulative nitrogen leaching maximums</u>* (refer Table 14.1).</p> <p>Amend 'Links to Policy' to include reference to the new policy proposed, as shown in the track change amendments (Part D) and below:</p> <p>This method implements Policies 5-7 and <u>5-8 and Policy 5-8A</u></p>

Policy 14-3: Good management practices	Support	<ul style="list-style-type: none"> HortNZ support the concept of good management practices. We propose the NZGAP EMS method for developing and auditing Farm Environment Plans. 	Retain, with consequential amendments as shown in track changes provided in Part D.
----------------------------------------	---------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------

New Policy 14-x Management of commercial vegetable growing activities		<p>This proposed policy would apply to commercial vegetable growing. A commercial vegetable growing enterprise may include leased and /or owned land or a combination of both. They can be made up of numerous non-contiguous parcels. Commercial vegetable growing enterprises are regulated at the FMU scale. Commercial vegetable growing may include pasture or arable or other crops within the rotation, and may include animals within the rotation. The area included within the commercial vegetable growing enterprise is only the area of land that is owned or leased by the commercial vegetable growing operator.</p> <ul style="list-style-type: none"> • The policy supports the use of audited farm plans, demonstrating GMP and risk-based BMP. • This policy provides for expansion for domestic food supply. • The policy would encourage expansion outside of target catchments in exchange for contraction within, in particular contraction in the lake catchments. • For discretionary activities the policy would require an AEE to demonstrate the effects of the activity and associated mitigation, and supports activities that would result in improvements that align with values. 	<p>Insertion of a new policy, Policy 14-x Management of commercial vegetable growing activities, that provides for CVG.</p> <p>The proposed policy wording is detailed in the track changed amendments included in Part D.</p>
Policy 14-5: Management of intensive farming land uses	Oppose in part	<ul style="list-style-type: none"> • This policy should exclude commercial vegetable growing. • The Dairy Farm Overseer Leaching maximums are not relevant to commercial vegetable growing, and should not be used as a limit for this activity. 	<p>Amend Policy 14-5: Management of intensive farming land uses, to exclude commercial vegetable production</p> <p>The proposed amendments detailed in the track changed amendments in Part D.</p>

Policy 14-6: Resource consent decision-making for intensive farming land uses	Oppose in part	<ul style="list-style-type: none"> This policy should exclude commercial vegetable growing. The Dairy Farm Overseer Leaching maximums are not relevant to commercial vegetable production, and should not be used as a limit for this activity The focus is too narrow on achieving Nitrogen leaching maximums, it should be about the degree to which water quality improvement is achieved across contaminants to achieve values. 	<p>Amend Policy 14-6: Resource consent decision-making for intensive farming land uses, to exclude commercial vegetable growing.</p> <p>The proposed amendments are detailed in the track changed amendments in Part D.</p>
Rule 14-1 Existing intensive farming land use, activities	Oppose in part	<ul style="list-style-type: none"> This rule should exclude commercial vegetable growing. The Dairy Farm Overseer Leaching maximums are not relevant to commercial vegetable production, and should not be used as a limit for this activity The focus is too narrow on achieving Nitrogen leaching maximums, it should be about the degree to which water quality improvement is achieved across contaminants to achieve values. 	<p>Amend Rule 14-1 Existing intensive farming land use activities to exclude commercial vegetable growing.</p> <p>The proposed amendments are detailed in the track changed amendments in Part D.</p>
Rule 14-2 Existing intensive farming <i>land</i> use activities, not complying with any of the conditions, standards and terms (a), (b) and (d) to (i) of Rule 14-1	Oppose in part	<ul style="list-style-type: none"> This rule should exclude commercial vegetable growing. The Dairy Farm Overseer Leaching maximums are not relevant to commercial vegetable production, and should not be used as a limit for this activity The focus is too narrow on achieving Nitrogen leaching maximums, it should be about the degree to which water quality improvement is achieved across contaminants to achieve values. 	<p>Amend Rule 14-2 Existing intensive farming land use activities, not complying with any of the conditions, standards and terms (a), (b) and (d) to (i) of Rule 14-1 to exclude commercial vegetable growing.</p> <p>The proposed amendments are detailed in the track changed amendments in Part D.</p>
Rule 14-2A Existing intensive farming <i>land</i> use activities not complying with condition, standard, term (c) of Rule 14-1 or Rule 14-2.	Oppose in part	<ul style="list-style-type: none"> This rule should exclude commercial vegetable growing. 	<p>Amend Rule 14-2A Existing intensive farming land^a use activities excluding commercial vegetable production not complying with condition,</p>

		<ul style="list-style-type: none"> The Dairy Farm Overseer Leaching maximums are not relevant to commercial vegetable production, and should not be used as a limit for this activity The focus is too narrow on achieving Nitrogen leaching maximums, it should be about the degree to which water quality improvement is achieved across contaminants to achieve values. 	<p>standard, term (c) of Rule 14-1 or Rule 14-2, to exclude commercial vegetable growing.</p> <p>The proposed amendments are detailed in the track changed amendments in Part D.</p>
Insert Rule 14-2BX Existing Commercial vegetable growing	New rule	<ul style="list-style-type: none"> To provide for growers that are already permitted and are growing outside target catchments, while also requiring GMP which will result in improved outcomes.] 	<p>Insert new rule, 14-2BX Existing Commercial vegetable growing.</p> <p>The rule wording is detailed in the track changed amendments in Part D.</p>
Insert Rule 14-2CX Existing Commercial Vegetable growing not complying with the conditions, standards and terms of Rule 14-2BX	New rule	<ul style="list-style-type: none"> Provides consenting pathway for growers (to be managed together with land they may have outside), and to enable the consenting of existing commercial vegetable growing area 	<p>Insert new rule, 14-2CX Existing Commercial Vegetable growing not complying with the conditions, standards and terms of Rule 14-2BX</p> <p>The rule wording is detailed in the track changed amendments in Part D.</p>
Insert Rule 14-2DX New Commercial Vegetable growing	New rule	<ul style="list-style-type: none"> To provide for expansion/new commercial vegetable growing, within limits, that recognises population growth. 	<p>Insert new rule, 14-2DX New Commercial Vegetable growing</p> <p>The rule wording is detailed in the track changed amendments in Part D.</p>
Insert Rule 14-2EX Commercial Vegetable growing not complying with any of the conditions, standards and of Rules 14-2CX or 14-2DX.		<ul style="list-style-type: none"> To provide a consenting pathway for commercial vegetable growing that does not fall under above rule, guided by the proposed policy 	<p>Insert new rule, 14-2EX Commercial Vegetable growing not complying with any of the conditions, standards and of Rules 14-2CX or 14-2DX.</p> <p>The rule wording is detailed in the track changed amendments in Part D.</p>
Definitions			
Commercial vegetable farming		<ul style="list-style-type: none"> The proposed amendment (and related definitions e.g. horticultural farm) provides clarity as to what is and what is not commercial vegetable growing 	<p>Amend the definition of commercial vegetable growing:</p> <p>Commercial vegetable growing means using an area of land greater than 4 ha for producing</p>

		<ul style="list-style-type: none"> The amendments are similar to the the NES FW (however the NEW FW refers to commercial vegetable production) 	commercial production of vegetable crops for human consumption, on a horticultural farm. It includes the whole rotational cycle, being the period of time that is required for the full sequence of crops, including any pasture phase in the rotation. Fruit crops, vegetables that are perennial, dry field peas or beans and other low intensity horticultural crops are not included.
New definition – enterprise		<ul style="list-style-type: none"> This definition is consistent with the proposed NES FW This definition is necessary to add clarity to the rules proposed for commercial vegetable growing 	<p>Include a definition for enterprise:</p> <p>Enterprise means one or more parcels of land held in single or multiple ownership to support the principle land use, or land on which the principle land use is reliant, which constitutes a single operating unit for the purposes of management</p>
New definition - farm		<ul style="list-style-type: none"> This definition is consistent with the proposed NES FW This is a consequential amendment due to the proposed amendments of 'commercial vegetable growing' provide clarity as to what is and what is not commercial vegetable growing 	<p>Include a definition for farm:</p> <p>Farm means a property, area of land, or enterprise used for pastoral farming, horticultural farming, arable farming, other than a farm engaged in intensive indoor primary production</p>
New definition – horticultural farming		<ul style="list-style-type: none"> This definition is consistent with the proposed NES FW This is a consequential amendment due to the proposed amendments of 'commercial vegetable growing' provide clarity as to what is and what is not commercial vegetable growing 	<p>Include a definition for horticultural farming:</p> <p>Horticultural farming means farming where the predominant activity is growing food or beverage crops for human consumption (other than arable crops), or flowers for commercial supply</p>

Part D

Tracked Changes Plan Change 2

Amendments sought by HortNZ are shown as red underlined text. The Council's proposed insertions are shown as underlined text; proposed deletions are shown as ~~strikethrough~~ (as notified).

Policy 5-7: Land[^] use activities affecting groundwater and surface water[^] quality

The management of land[^] use activities affecting groundwater and surface water[^] must give effect to the strategy for surface water[^] quality set out in Policies 5-2, 5-3, 5-4 and 5-5, and the strategy for groundwater quality in Policy 5-6, by managing diffuse discharges[^] of contaminants in the following manner:

- (a) identifying in the regional plan targeted Water Management Sub-zones*. Targeted Water Management Sub-zones* are those subzones where, collectively, land[^] use activities are significant contributors to elevated contaminant levels in groundwater or surface water[^]
- (b) identifying in the regional plan intensive farming land[^] use activities. Intensive farming land[^] use activities are rural land[^] use activities that (either individually or collectively) make a significant contribution to elevated contaminant levels in the targeted Water Management Subzones* identified in (a) above
- (bb) Recognise the particular domestic food production values associated with commercial vegetable production and provide a tailored consenting pathway to manage associated effects groundwater and surface water.
- (c) actively managing the intensive farming land[^] use activities identified in (b) including through regulation in the regional plan, in the manner specified in Policy 5-8
- (d) the Regional Council must continue to monitor ground and surface water[^] quality in Water Management Sub-zones* not identified in (a) and rural land[^] uses not identified in (b). Where monitoring shows the thresholds in (a) and (b) are met then the regional plan must be amended so that those further Water Management Sub-zones* and rural land[^] uses are included in the management regime set out in (c).

Policy 5-8: Management and Regulation of intensive farming land[^] use, excluding commercial vegetable growing, activities affecting groundwater and surface water[^] quality

In order to give effect to Policy 5-7, the effects of intensive farming land[^], excluding commercial vegetable growing, use activities on groundwater and surface water[^] quality must be managed in the following manner:

- (a) **Nutrients**
 - (i) Nitrogen leaching maximums must be established in the regional plan which:
 - (A) take into account all the non-point sources of nitrogen in the catchment
 - (B) ~~will achieve the strategies for surface water[^] quality set out in Policies 5-2, 5-3, 5-4 and 5-5, and the strategy for groundwater quality in Policy 5-6~~
 - (B) (C) recognise the productive capability of land[^] in the Water Management Sub-zone*

- (C) ~~(D)~~ are achievable on most farms using *good management practices**
- (D) ~~(E)~~ provide for appropriate timeframes for achievement where large changes to management practices or high levels of investment are required to achieve the nitrogen leaching maximums.
- (ii) Existing intensive farming *land*[^] use activities must be regulated in targeted *Water Management Sub-zones** to achieve the nitrogen leaching maximums specified in (i) except as provided for in (iia) and (iib) below.
- (iia) Existing intensive *land*[^] use activities which do not comply with (ii) must be regulated to reduce nitrogen leaching which is in excess of the nitrogen leaching maximums established under (a) by implementing *good management practice**, and additional measures to minimise the degree of non-compliance, having regard to:
- (A) the feasibility, practicality, and cost of achieving the nitrogen leaching maximums specified in (i); and
- (B) the strategy for surface *water*[^] quality set out in Policies 5-2, 5-3, 5-4 and 5-5, and the strategy for groundwater quality in Policy 5-6.
- (iib) Existing *land*[^] use activities, excluding commercial vegetable growing, which do not comply with (ii) but are intended to transition to an alternative non-intensive farming *land*[^] use must be regulated to ensure that they are able to continue for a limited period of time in order to enable that transition and only where there is no increase in the exceedance of the nitrogen leaching maximums established under (a).
- (iii) New intensive farming *land*[^] use activities must be regulated throughout the Region to achieve the nitrogen leaching maximums specified in (i).
- (b) **Faecal contamination**
- (i) Those persons carrying out existing intensive farming *land*[^] use activities in the targeted *Water Management Sub-zones** listed in Table 14.1 or new conversions to intensive farming *land*[^] use activities anywhere in the Region must be required, amongst other things, to:
- (A) prevent cattle access to some surface *water bodies*[^] and their *beds*[^]
- (B) mitigate faecal contamination of surface *water*[^] from other entry points (eg., race run-off)
- (C) establish programmes for implementing any required changes.
- (c) **Sediment**
- (i) In those *Water Management Sub-zones** where agricultural *land*[^] use activities, are the predominant cause of elevated sediment levels in surface *water*[^], the Regional Council will promote the preparation of voluntary management plans under the Council's Sustainable Land Use Initiative or Whanganui Catchment Strategy for the purpose of reducing the risk of *accelerated erosion**, as described in Chapter 4.
- (d) **Good management practices***
- (i) All intensive farming *land*[^], use activities must be regulated to manage nutrient leaching and run-off, faecal contamination, and sediment losses in accordance with *good management practices**.

Policy 5-8A Management and regulation of commercial vegetable growing, activities affecting groundwater and surface water quality

In order to give effect to Policy 5-7, the effects of commercial vegetable growing land use activities on groundwater and surface water quality must be managed in a manner that:

1. Recognises the particular domestic food production values associated with commercial vegetable production and the need to keep pace with population growth and anticipated food supply requirements.
2. Recognises the current difficulties in modelling on farm nutrient losses from commercial vegetable growing.
3. Recognises the particular constraints that apply to commercial vegetable growing (including the need to rotate crops to avoid soil borne diseases and for growing locations in close proximity to processing facilities).
4. Provides a nutrient management framework that appropriately responds to and accommodates these constraints while improving or maintaining water quality by:
 - a. Ensuring implementation of good management practices to manage nutrient leaching and run-off, faecal contamination and sediment loss.
 - b. Managing commercial vegetable growing effects by land area controls.

<u>Method 5-12</u>	<u>Innovative Land Use Research</u>
<u>Description</u>	<p><u>Support initiatives by local communities, sector groups or tangata whenua which develop options for sustainable land use in the Region. Support for work in <i>Water Management Sub-zones*</i> where nitrogen leaching is an issue will be a priority in order to find viable options for intensive farming land users to make improvements to water quality to contribute to achieving water quality targets over-time. that will have difficulty in achieving the cumulative nitrogen leaching maximums* (refer Table 14.1).</u></p> <p><u>Horizons will provide assistance through providing data and information that will assist in the identification and evaluation of innovative land use options and participating in any evaluative work as appropriate.</u></p>
<u>Who</u>	<u>Local communities, rural and other sector groups, Territorial Authorities, Regional Council.</u>
<u>Links to Policy</u>	<u>This method implements Policies 5-7 and, 5-8 and Policy 5-8A</u>
<u>Target</u>	<u>Advice and assistance is available for landowners in the Region regarding land use management practices.</u>

Method 5-13	Provision of Information
<u>Description</u>	<u>Horizons will collate and publish information regarding Overseer version changes and the identification and evaluation of nutrient management models other than Overseer that may be more appropriate for calculation of on-farm nutrient losses.</u>
<u>Who</u>	<u>Regional Council, rural sector groups, and nutrient management model providers.</u>
<u>Links to Policy</u>	<u>This method implements Policy 5-8.</u>
<u>Target</u>	<ul style="list-style-type: none"> • <u>Horizons will consider whether it needs to respond to changes in Overseer through a plan change process.</u> • <u>A list of nutrient management models appropriate for use in intensive farming land is maintained on Horizons' website.</u>

Policy 14-3: Industry-based standards Good management practices*

When making decisions on *resource consent*[^] applications, and setting consent conditions, for activities affecting groundwater and surface *water*[^] quality, ~~the~~ Regional Council must have regard to *good management practices** will examine on an on-going basis relevant industry-based standards (including guidelines and codes of practice), recognising that such industry-based standards generally represent current best practice, and may accept compliance with those standards as being adequate to avoid, remedy or mitigate adverse *effects*[^] to the extent that those standards *good management practices** address the matters in Policies 14-1, 14-2, 14-4, and 14-5 ~~and 14-6, and 14-x.~~

Policy 14-5: Management of intensive farming *land*[^] uses, excluding commercial vegetable growing.

In order to give effect to Policy 5-7 and Policy 5-8, intensive farming *land*[^] use activities, excluding commercial vegetable growing, affecting groundwater and surface *water*[^] quality must be managed in the following manner:

- (a) The following land uses have been identified as intensive farming *land*[^] uses:
 - (i) *Dairy farming**
 - ~~(ii) *Commercial vegetable growing**~~
 - (iii) *Cropping**
 - (iv) *Intensive sheep and beef**
- (b) The intensive farming *land*[^] uses identified in (a) must be regulated where:
 - (i) They are existing (ie., established prior to the Plan having legal effect) intensive farming *land*[^] uses, in the targeted *Water Management Sub-zones** identified in Table 14.1¹.
 - (ii) They are new (ie., established after the Plan has legal effect²) intensive farming *land*[^] uses, in all *Water Management Sub-zones** in the Region.
- (c) Nitrogen leaching maximums have been established in Table 14.2.

- (d) ~~Except as provided for in Policy 14-6(d),~~ Existing intensive farming *land*[^] uses regulated in accordance with (b)(i) must be managed to ensure that the leaching of nitrogen from those *land*[^] uses does not exceed the *cumulative nitrogen leaching maximum*^{*} values for each year contained in Table 14.2, ~~unless the circumstances in Policy 14-6 apply.~~
- (e) New intensive farming *land*[^] uses regulated in accordance with (b)(ii) must be managed to ensure that the leaching of nitrogen from those *land*[^] uses does not exceed the *cumulative nitrogen leaching maximum*^{*} values for each year contained in Table 14.2.
- (f) Intensive farming *land*[^] uses regulated in accordance with (b) must exclude cattle from:
 - (i) A *wetland*[^] or *lake*[^] that is a *rare habitat*^{*}, *threatened habitat*^{*} or *at-risk habitat*^{*}.
 - (ii) Any *river*[^] that is permanently flowing or has an *active bed*^{*} width greater than 1 metre.
- (g) All places where cattle cross a river that is permanently flowing or has an active bed^{*} width greater than 1 metre must be culverted or bridged and those culverts or bridges must be used by cattle whenever they cross the river.

Policy 14-6: Resource consent decision-making for intensive farming *land*[^] uses, excluding commercial vegetable growing

When making decisions on *resource consent*[^] applications, and setting consent *conditions*[^], for intensive farming *land*[^] uses, excluding commercial vegetable growing, the Regional Council must:

- (a) Ensure the nitrogen leaching from the *land*[^] is managed in accordance with Policy 14-5.
- (b) Ensure implementation of *good management practices*^{*} to manage nutrient leaching and run-off, faecal contamination and sediment loss, as part of any intensive farming *land*[^] use.

An exception may be made to (a) for existing intensive farming *land*[^] uses in the following circumstances:

- (i) ~~where the existing intensive farming *land*[^] use occurs on land that has 50% or higher of LUC Classes IV to VIII and has an average annual rainfall of 1500 mm or greater; or~~
- (ii) ~~where the existing intensive farming *land*[^] use cannot meet year 1 *cumulative nitrogen leaching maximums*^{*} in year 1, they shall be managed through conditions on their resource consent to ensure year 1 *cumulative nitrogen leaching maximums*^{*} are met within 4 years.~~

~~Where an exception is made to the *cumulative nitrogen leaching maximum*^{*} the existing intensive farming *land*[^] uses must be managed by consent conditions to ensure:~~

- (i) ~~Good management practices to minimise the loss of nitrogen, phosphorus, faecal contamination and sediment are implemented.~~
- (ii) ~~Any losses of nitrogen, which cannot be minimised, are remedied or mitigated, including by other works or environmental compensation. Mitigation works may include but are not limited to, creation of wetland and riparian planted~~

zones.

- (c) Ensure that cattle are excluded from surface water in accordance with Policy 14-5 (f) and (g) except where landscape or geographical constraints make stock exclusion impractical and the effects of cattle stock movements are must be avoided, remedied or mitigated. In all cases any unavoidable losses of nitrogen, phosphorus, faecal contamination and sediment are remedied or mitigated by other works or environmental compensation. Mitigation works may include (but are not limited to) creation of wetland and riparian planted zones.
- (d) Provide for exceptions to (a) for existing intensive farming land[^] uses that exceed the cumulative nitrogen leaching maximum* where:
 - (i) Good management practices* are implemented in accordance with a nutrient management plan*, along with additional innovations and measures to further reduce nutrient leaching and run-off, faecal contamination and sediment losses from the land[^] progressively over time; or
 - (ii) The existing intensive farming land[^] use is to continue for no longer than five years in order to enable the transition to an alternative non-intensive farming land[^] use without an increase in nutrient leaching and run-off, faecal contamination and sediment losses from the land[^] over that period of time.
- (e) When determining whether to enable an existing intensive farm land[^] use to continue under (d)(i), have regard to:
 - (i) Whether the proposed innovations and measures represent the best practicable option[^] to minimise the nutrient leaching and run-off, faecal contamination and sediment losses from the land[^], having particular regard to:
 - (A) The extent of the exceedance of the cumulative nitrogen leaching maximum* in Table 14.2;
 - (B) The rate of reduction of nitrogen loss towards the cumulative nitrogen leaching maximum* for any given year in Table 14.2;
 - (C) Whether further reductions are currently possible for the intensive farming land[^] use based on existing technologies.
 - (ii) The extent to which the non-compliance with the cumulative nitrogen leaching maximum* specified in Table 14.2 is attributable to updates in versions of OVERSEER;
 - (iii) The nature and characteristics of the land[^], having regard to physical characteristics of the soil including in terms of attenuation capacity, climatic conditions, and topography of the property;
 - (iv) The contribution of the progressive reduction in nutrient leaching and run-off, faecal contamination and sediment losses from the land[^], over time, to the improvement of water[^] quality within that Water Management Sub-zone*;
 - (v) The strategy for surface water[^] quality set out in Policies 5-2, 5-3, 5-4 and 5-5, and the strategy for groundwater quality in Policy 5-6.
- (f) When determining whether to enable the existing intensive farming land[^] use to continue under (d)(ii), have regard to:
 - (i) Measures implemented in accordance with a nutrient management plan* to ensure that nutrient leaching and run-off, faecal contamination and sediment losses from the land[^] do not increase over the duration of the resource consent[^];

- (ii) good management practices* proposed to avoid, remedy or mitigate nutrient leaching and run-off, faecal contamination and sediment losses from the land^;
- (iii) the nature, sequencing, measurability and enforceability of any steps proposed to transition out of the intensive farming land^ use by the expiry of the resource consent^.

Policy 14-x Management of commercial vegetable growing activities

In order to give effect to Policy 5-7 and 5-8A, the effects of commercial vegetable growing (an intensive farming land^ use) on groundwater and surface water quality must be managed in the following manner.

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

- a. Enabling commercial vegetable growing that manages diffuse discharge of nitrogen, phosphorus, sediment and microbial pathogens within baselines and through adherence to Good Management Practice, Farm Environment Plans and risk-based Best Management Practice;
- b. Adopting sector-based initiatives and other mitigation measures to progressively reduce losses of nitrogen, phosphorus, sediment and microbial pathogens;
- c. Establishing baselines for each property or enterprise within a fresh water management unit that define:
 - i. The maximum area of land in commercial vegetable growing based on a representative sample of data from the five years prior to 2019, allowing for the maximum area in any one year over that period; and
 - ii. A commercial vegetable growing rotation.
 - iii. Establishing commercial vegetable growing baseline that define the area associated with the existing rotations in the Water Management Sub-zones*
- d. Recognise the inter-regional domestic food supply values associated with commercial vegetable growing by provisioning a maximum area of land available to support commercial vegetable food supply needs for population growth during the anticipated life of the plan subject to controls to ensure:
 - i. The location is within the LUC I and II
 - ii. Increased area outside of Water Management Sub-zones* listed in Table 14.1
- e. Incentivise growers to reduce intensity within the Water Management Sub-zones* listed in Table 14.1 by enabling the equivalent expansion within the FMU, including through consent duration.
- f. Offsetting may be proposed for commercial vegetable growing activity above the maximum areas set out in c) and d), When assessing the effects of offset mitigation, consider improvements across one or more of the following contaminants: sediment, nutrient and bacteria, and the relationship of those attributes to long-term environmental, social and cultural outcomes sought in the receiving waters and any environmental, cultural and social benefits that result from the mitigation.

14.1 Rules - Agricultural Activities

Table 14.1 sets out the target Water Management Sub-zones* where management of existing intensive farming land[^] use activities must be specifically controlled.

Table 14.1 Targeted Water Management Sub-zones*

Catchment	Water Management Sub-zone*	Date the Rules of the Plan have legal effect ³ in relation to Rule 14-1
Mangapapa	Mangapapa Mana_9b	1 July 2014
Waikawa	Waikawa West_9a Manakau West_9b	1 July 2014
Other south-west catchments (Papaingtona)	Lake Papaingtona West_8	1 July 2014
Mangatainoka	Upper Mangatainoka Mana_8a Middle Mangatainoka Mana_8b Lower Mangatainoka Mana_8c Makakahi Mana_8d	1 July 2015
Other coastal lakes	Northern Manawatu Lakes West_6 Kaitoke Lakes West_4 Southern Wanganui Lakes West_5	1 July 2015
Coastal Rangitikei	Coastal Rangitikei Rang_4	1 July 2015

Catchment	Water Management Sub-zone*	Date the Rules of the Plan have legal effect ³ in relation to Rule 14-1
Lake Horowhenua	Lake Horowhenua Hoki_1a Hokio Hoki_1b	1 July 2015
Upper Manawatu above Hopelands	Upper Manawatu Mana_1a Mangatewainui Mana_1b Mangatoro Mana_1c Weber-Tamaki Mana_2a Mangatera Mana_2b Upper Tamaki Mana_3 Upper Kumeti Mana_4 Tamaki-Hopelands Mana_5a Lower Tamaki Mana_5b Lower Kumeti Mana_5c Oruakeretaki Mana_5d Raparapawai Mana_5e	1 July 2016
Manawatu above gorge	Hopelands-Tiraumea Mana_6 Upper Gorge Mana_9a Mangaatua Mana_9c	1 July 2016

Table 14.2 sets out the cumulative nitrogen leaching maximum* for the land^ used for intensive farming land^ use activities, within each specified land use capability class*.

Table 14.2 Cumulative nitrogen leaching maximum* by Land Use Capability Class*

Period (from the year that the rule has legal effect ¹)	LUC* I	LUC* II	LUC* III	LUC* IV	LUC* V	LUC* VI	LUC* VII	LUC* VIII
Year 1	51 30	45 27	40 24	29 18	25 16	24 15	11 8	3 2
Year 5	46 27	42 25	35 24	26 16	20 13	16 10	8 6	3 2
Year 10	44 26	37 22	32 19	23 14	20 13	16 10	8 6	3 2
Year 20	43 25	35 24	30 18	21 13	19 12	16 10	8 6	3 2

¹ The Plan has legal effect in the case of *dairy farming** from 24 August 2010 and for *commercial vegetable growing**, *cropping** and *intensive sheep and beef** it has legal effect from 9 May 2013.

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
14-1 Existing intensive farming land [^] use, activities <u>excluding</u> <u>commercial</u> <u>vegetable</u> growing,	<p>The use of land[^] pursuant to s9(2) RMA for any of the following types of intensive farming:</p> <p>(a) <u>dairy farming</u>[*]</p> <p>(b) <u>commercial-vegetable-growing</u>[*]</p> <p>(c) <u>cropping</u>[*]</p> <p>(d) <u>intensive sheep and beef farming</u>[*] that was existing in the Water Management Sub-zones[*] listed in and from the dates specified in Table 14.1 and any of the following discharges[^] pursuant to ss15(1) or 15(2A) RMA associated with that intensive farming:</p> <p>(e) the discharge[^] of fertiliser[*] onto or into land[^]</p> <p>(f) the discharge[^] of contaminants[^] onto or into land[^] from</p> <p>(i) the preparation, storage, use or transportation of stock feed on production land[^]</p> <p>(ii) the use of a feedpad[*]</p> <p>(c) the discharge[^] of grade Aa biosolids[*] or compost[*] onto or into production land[^]</p> <p>(d) the discharge[^] of poultry farm litter[*] onto or into production land[^]</p> <p>(e) the discharge[^] of farm animal effluent[*] onto or into production land[^] (or upon expiry or surrender of any existing consent for that discharge[^]) including:</p> <p>(i) effluent from dairy sheds and</p>	Controlled	<p>(a) A nutrient management plan[*] must be prepared for the land[^], and provided annually to the Regional Council.</p> <p>(b) The activity must be undertaken in accordance with the nutrient management plan[*] prepared under (a).</p> <p>(c) The nutrient management plan[*] prepared under (a) must demonstrate that the nitrogen leaching loss from the activity will not exceed the cumulative nitrogen leaching maximum[*] specified in Table 14.2.</p> <p>(d) Cattle must be excluded from:</p> <p>(i) wetlands[^] and lakes[^] that are a rare habitat[*] or threatened habitat[*], and</p> <p>(ii) the beds[^] of rivers[^] that are permanently flowing or have an active bed[*] width greater than 1 m.</p> <p>(e) Rivers[^] that are permanently flowing or have an active bed[*] width greater than 1 m, that are crossed by cattle must be bridged or culverted, and the cattle must cross via that bridge or culvert, and run-off originating from the carriageway of the bridge or culvert must be discharged[^] onto or into land[^].</p> <p>(f) The discharge[^] of fertiliser[*] onto or into land[^] and any ancillary discharge[^] of contaminants[^] into air must comply with the conditions[^] of Rule 14-5.</p> <p>(g) The discharge[^] of contaminants[^] onto or into land[^] from:</p> <p>(i) the preparation, storage, use or transportation of stock feed on production land[^], or</p> <p>(ii) the use of a feedpad[*]</p> <p>and any ancillary discharge[^] of contaminants[^] into</p>	<p>Control is reserved over:</p> <p>(a) the implementation of the nutrient management plan[*]</p> <p>(b) compliance with the cumulative nitrogen leaching maximum[*] specified in Table 14.2 good management practices[*] to avoid, remedy or mitigate nutrient leaching and run-off, faecal contamination and sediment losses from the land[^]</p> <p>(c) the matters of control in Rule 14-11</p> <p>(d) avoiding, remedying or mitigating the effects of odour, dust, fertiliser[*] drift or effluent drift</p> <p>(e) provision of information including the nutrient management plan[*]</p> <p>(f) duration of consent</p> <p>(g) review of consent conditions[^]</p> <p>(h) compliance monitoring</p> <p>(i) the matters in Policyies 14-5, 14-6 and 14-9.</p> <p>Resource consent[^] applications under this rule[^] will not be notified and written approval of affected persons will not be required (notice of applications need not be served[^] on affected persons).</p>

	<p><i>feedpads*</i></p> <p>(ii) effluent received from piggeries</p> <p>(iii) sludge from farm effluent ponds</p> <p>(iv) poultry farm effluent and any ancillary <i>discharge</i>[^] of <i>contaminants</i>[^] into air pursuant to ss15(1) or 15(2A) RMA.</p> <p>Where the existing intensive farming <i>land</i>[^] use is located partly on land within one or more of the <i>water management sub-zones*</i> listed in Table 14.1 and partly on other land, this rule only applies:</p> <p>(a) if at least 20% of the existing intensive farming <i>land</i>[^] use is located on land within the listed <i>water management sub-zones*</i>; and</p> <p>(b) to the portion of the existing intensive farming <i>land</i>[^] use that is located within the listed <i>water management sub-zones*</i>.</p>		<p>air must comply with the <i>conditions</i>[^] of Rule 14-6.</p> <p>(h) The <i>discharge</i>[^] of <i>grade Aa biosolids*</i> or <i>compost*</i> onto or into <i>production land</i>[^] and any ancillary <i>discharge</i>[^] of <i>contaminants</i>[^] into air must comply with the <i>conditions</i>[^] of Rule 14-7.</p> <p>(i) The <i>discharge</i>[^] of <i>poultry farm litter*</i> onto or into <i>production land</i>[^] and any ancillary <i>discharge</i>[^] of <i>contaminants</i>[^] into air must comply with the <i>conditions</i>[^] of Rule 14-9.</p> <p>(j) The <i>discharge</i>[^] of farm <i>animal effluent*</i> onto or into <i>production land</i>[^] including:</p> <p>(i) effluent from dairy sheds and <i>feedpads*</i></p> <p>(ii) effluent received from piggeries</p> <p>(iii) sludge from farm effluent ponds</p> <p>(iv) poultry farm effluent</p> <p>and any ancillary <i>discharge</i>[^] of <i>contaminants</i>[^] into air must comply with the <i>conditions</i>[^], standards and terms of Rule 14-11.</p>	
--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
14-2 Existing intensive farming land [^] use activities, <u>excluding commercial vegetable growing</u> , not complying with any of the conditions, standards and terms (a), (b) and (d) to (i) of Rule 14-1	<p>The use of land[^] pursuant to s9(2) RMA for any of the following intensive farming:</p> <p>(i) dairy farming[*]</p> <p>(ii) commercial vegetable growing[*]</p> <p>(iii) cropping[*]</p> <p>(iv) intensive sheep and beef farming[*] that was existing in the Water Management Sub-zones[*] listed in and from the dates specified in Table 14.1, and any of the following discharges[^] pursuant to ss15(1) or 15(2A) RMA associated with intensive farming, that do not comply with one or more of the conditions[^], standards and terms of Rule 14-1 (except for (c)):</p> <p>(a) the discharge[^] of fertiliser[*] onto or into land[^]</p> <p>(b) the discharge[^] of contaminants[^] onto or into land[^] from</p> <p>(i) the preparation, storage, use or transportation of stock feed on production land[^]</p> <p>(ii) the use of a feedpad[*]</p> <p>(c) the discharge[^] of grade Aa biosolids[*] or compost[*] onto or into production land[^]</p> <p>(d) the discharge[^] of poultry farm litter[*] onto or into production land[^]</p> <p>(e) the discharge[^] of farm animal effluent[*] onto or into production</p>	<p>Restricted Discretionary</p>	<p>(a) <u>A nutrient management plan[*] must be prepared for the land[^], and provided annually to the Regional Council.</u></p> <p>(b) <u>The activity must be undertaken in accordance with the nutrient management plan[*] prepared under (a).</u></p> <p>(c) <u>The nutrient management plan[*] prepared under (a) must demonstrate that the nitrogen leaching loss from the activity will not exceed the cumulative nitrogen leaching maximum[*] for any year in Table 14.2.</u></p>	<p>Discretion is restricted to:</p> <p>(a) preparation of and compliance with a nutrient management plan[*] for the land[^]</p> <p>(b) the extent of non-compliance with the cumulative nitrogen leaching maximum[*] specified in Table 14.2</p> <p>(b) (c) measures good management practices[*] to avoid, remedy or mitigate nutrient leaching and runoff, faecal contamination and sediment losses from the land[^]</p> <p>(c) (d) measures to exclude cattle from wetlands[^] and lakes[^] that are a rare habitat[*] or threatened habitat[*], and rivers[^] that are permanently flowing or have an active bed[*] width greater than 1 m</p> <p>(d) (e) the bridging or culverting of rivers[^] that are permanently flowing or have an active bed[*] width greater than 1 m that are crossed by cattle</p> <p>(e) (f) the matters referred to in the conditions[^] of Rules 14-5, 14-6, 14-7, and 14-9</p> <p>(f) (g) the matters referred to in the conditions[^] of Rule 14-11 and the matters of control in Rule 14-11</p> <p>(g) (h) avoiding, remedying or mitigating the effects of odour, dust, fertiliser[*] drift or effluent drift</p>

	<p><i>land</i>[^] (or upon expiry or surrender of any existing consent for that discharge[^]) including:</p> <ul style="list-style-type: none"> (i) effluent from dairy sheds and feedpads* (ii) effluent received from piggeries (iii) sludge from farm effluent ponds (iv) poultry farm effluent <p>and any ancillary discharge[^] of contaminants[^] into air pursuant to ss15(1) or 15(2A) RMA.</p>			<p>(h) (†) provision of information including the annual <i>nutrient management plan</i>[*]</p> <ul style="list-style-type: none"> (i) (†) duration of consent (i) (†) review of consent conditions[^] (k) (†) compliance monitoring (i) (†) the matters in Policy 14-9.
<p><u>Rule 14-2A Existing intensive farming land</u>[^] use activities <u>excluding commercial vegetable growing</u> not complying with condition, standard, term (c) of Rule 14-1 or Rule 14-2.</p>	<p>The use of <i>land</i>[^] pursuant to s9(2) RMA for any of the following intensive farming:</p> <ul style="list-style-type: none"> (i) <i>dairy farming</i>[*] (ii) commercial-vegetable-growing[*] (iii) <i>cropping</i>[*] (iv) <i>intensive sheep and beef farming</i>[*] <p>that was existing in the <i>Water Management Sub-zones</i>[*] listed in and from the dates specified in Table 14.1, and any of the following discharges[^] pursuant to ss15(1) or 15(2A) RMA associated with intensive farming, that</p>	Discretionary		

			<p>do not comply with conditions, standards and term (c) of Rule 14.1 or one or more of the <u>conditions[^], standards and terms of Rule 14-2:</u></p> <p>(f) <u>the discharge[^] of fertiliser* onto or into land[^]</u></p> <p>(g) <u>the discharge[^] of contaminants[^] onto or into land[^] from</u></p> <p>(i) <u>the preparation, storage, use or transportation of stock feed on production land[^]</u></p> <p>(ii) <u>the use of a feedpad*</u></p> <p>(h) <u>the discharge[^] of grade Aa biosolids* or compost* onto or into production land[^]</u></p> <p>(i) <u>the discharge[^] of poultry farm litter* onto or into production land[^]</u></p> <p>(i) <u>the discharge[^] of farm animal effluent* onto or into production land[^] (or upon expiry or surrender of any existing consent for that discharge[^]) including:</u></p> <p>(i) <u>effluent from dairy sheds and feedpads*</u></p> <p>(ii) <u>effluent received from piggeries</u></p> <p>(iii) <u>sludge from farm effluent ponds</u></p> <p>(iv) <u>poultry farm effluent and any ancillary discharge[^] of contaminants[^] into air pursuant to ss15(1) or 15(2A) RMA.</u></p>		
--	--	--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	--

Rule	Activity	Classification	Conditions/Standards/Terms	Control/Discretion Non-Notification
14-2BX Existing Commercial vegetable growing	<p>The use of <i>land</i>^a pursuant to s9(2) RMA for any commercial vegetable growing enterprise that was existing, on 22 July 2019 and any of the following <i>discharges</i>^a pursuant to ss15(1) or 15(2A) RMA associated with that CVG:</p> <p>(a) <u>the discharge^a of fertiliser^a onto or into land^a</u></p> <p>(b) <u>the discharge^a of compost^a onto or into production land^a</u></p> <p>(c) <u>the discharge^a of poultry farm litter^a onto or into production land^a</u></p> <p>Where the commercial vegetable growing is located on land that is outside of the Water Management Sub-zones^a listed in Table 14.1.</p>	Permitted	<p>(a) A Farm Environment Plan demonstrates that the commercial vegetable growing enterprise meets Good Management Practice;</p> <p>(b) The commercial vegetable growing enterprise area, as at 22 July 2019, can be located in FMU within the Region, but excludes any commercial vegetable growing area within Water Management Sub-zones^a listed in Table 14.1</p> <p>(c) Cattle must be excluded from:</p> <p><i>I. wetlands^a and lakes^a that are a rare habitat^a or threatened habitat^a, and</i></p> <p><i>II. the beds^a of rivers^a that are permanently flowing or have an active bed^a width greater than 1 m.</i></p> <p><i>III. Rivers^a that are permanently flowing or have an active bed^a width greater than 1 m, that are crossed by cattle must be bridged or culverted, and the cattle must cross via that bridge or culvert, and runoff originating from the carriageway of the bridge or culvert must be discharged^a onto or into land^a.</i></p> <p>(d) The discharge^a of fertiliser^a onto or into land^a and any ancillary discharge^a of contaminants^a into air must comply with the conditions^a of Rule 14-5.</p> <p>(e) The discharge^a of poultry farm litter^a onto or into production land^a and any ancillary discharge^a of contaminants^a into air must comply with the conditions^a of Rule 14-9.</p>	

14-2CX Existing Commercial Vegetable growing not complying with the conditions, standards and terms of Rule 14-2BX	<p>The use of land^a pursuant to s9(2) RMA for any commercial vegetable growing enterprise that was existing in the region on 22 July 2019, including commercial vegetable growing on land within the Water Management Sub-zones listed in Table 14.1*, and any of the following discharges^a pursuant to ss15(1) or 15(2A) RMA associated with that CVG:</p> <p>(g) the discharge^a of fertiliser* onto or into land^a</p> <p>(h) the discharge^a of compost* onto or into production land^a</p> <p>(i) the discharge^a of poultry farm litter* onto or into production land^a</p>	Controlled	<p>a) An audited Farm Environment Plan must be prepared for the commercial vegetable growing enterprise</p> <p>b) The discharge^a of fertiliser* onto or into land^a and any ancillary discharge^a of contaminants^a into air must comply with the conditions^a of Rule 14-5.</p> <p>c) The discharge^a of poultry farm litter* onto or into production land^a and any ancillary discharge^a of contaminants^a into air must comply with the conditions^a of Rule 14-9.</p> <p>d) Cattle must be excluded from:</p> <p>i. wetlands^a and lakes^a that are a rare habitat* or threatened habitat*, and</p> <p>ii. the beds^a of rivers^a that are permanently flowing or have an active bed* width greater than 1 m.</p> <p>iii. Rivers^a that are permanently flowing or have an active bed* width greater than 1 m, that are crossed by cattle must be bridged or culverted, and the cattle must cross via that bridge or culvert, and run-off originating from the carriageway of the bridge or culvert must be discharged^a onto or into land^a.</p> <p>e) The discharge^a of fertiliser* onto or into land^a and any ancillary discharge^a of contaminants^a into air must comply with the conditions^a of Rule 14-5.</p> <p>f) The discharge^a of poultry farm litter* onto or into production land^a and any ancillary discharge^a of contaminants^a into air must comply with the conditions^a of Rule 14-9.</p> <p>And either:</p> <p>g) The Farm Environment Plan prepared under (a) can demonstrate that the nitrogen leaching loss from the</p>	<p>Control is reserved over:</p> <p>(a) the implementation of the Farm Environment Plan demonstrates Good Management Practice, for land outside Water Management Sub-zones* listed in Table 14.1 and Best Management Practice for land for land within the Water Management Sub-zones* listed in Table 14.1.</p> <p>(b) crop rotation intensity at the FMU scale</p> <p>(c) commercial vegetable growing location and area annually</p> <p>(d) time frames for actions within Farm Environment Plan</p> <p>(e) good management practices* to avoid, remedy or mitigate nutrient leaching and run-off, faecal contamination and sediment losses from the land^a</p> <p>(f) avoiding, remedying or mitigating the effects of odour, dust or fertiliser* drift</p> <p>(g) the matters referred to in the conditions^a of Rules 14-5, 14-7 and 14-9</p> <p>(h) duration of consent</p> <p>(i) review of consent conditions^a</p> <p>(j) compliance monitoring</p> <p>Resource consent^a applications under this rule^a will not be notified and written approval of affected persons will not be required (notice of applications need not be served^a on affected persons).</p>
--------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

			<p>commercial vegetable growing enterprise will not exceed the <u>cumulative nitrogen leaching maximum</u>* specified in Table 14.2; or</p> <p>h) <u>The commercial vegetable growing enterprise operates at the same area and intensity (as at 22 July 2019) and the FEP prepared under (a) can demonstrate that:</u></p> <p>i. <u>For land outside Water Management Sub-zones* listed in Table 14.1., Good Management Practice is achieved,</u></p> <p>ii. <u>For land within Water Management Sub-zones* listed in Table 14.1., Best Management Practice is achieved; or</u></p> <p>i) <u>The overall intensity of commercial vegetable growing enterprise is the same or lesser at the FMU scale, and:</u></p> <p>i. <u>For land outside water management zones, Good Management Practice is achieved,</u></p> <p>ii. <u>For land within Water Management Sub-zones* listed in Table 14.1,</u></p> <p>i. <u>Best Management Practice is achieved, and</u></p> <p>ii. <u>Where there is a reduction in intensity or area of commercial vegetable growing within water management sub-zones that is greater than the requirements of Best Management Practice, the equivalent area (at the intensity at 22 July 2019) can be transferred to land outside of outside of the Water Management Sub-zones* listed in Table 14.1., provided it is within FMU</u></p>
--	--	--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

14-2DX New Commercial Vegetable growing	<p>The use of <u>land^A</u> pursuant to s9(2) RMA for any commercial vegetable growing enterprise and any of the following <u>discharges^A</u> pursuant to ss15(1) or 15(2A) RMA associated with that intensive farming:</p> <p>(a) <u>the discharge^A of fertiliser[*] onto or into land^A</u></p> <p>(b) <u>the discharge^A of compost[*] onto or into production land^A</u></p> <p>(c) <u>the discharge^A of poultry farm litter[*] onto or into production land^A</u></p> <p>Where the CVG was not existing on 22 July 2019 and is located in any FMU in the region.</p>	Restricted Discretionary	<p>(a) An audited Farm Environment Plan demonstrates that the commercial vegetable growing enterprise meets Good Management Practice, for land outside Water Management Sub-zones[*] listed in Table 14.1 and Best Management Practice for land for land within the Water Management Sub-zones[*] listed in Table 14.1.</p> <p>(b) The cumulative new commercial vegetable growing area in the Region is not greater than the area of commercial vegetable growing at 22 July 2019 +10%³</p> <p>(c) New commercial vegetable growing enterprise can move anywhere within the FMU, but the cumulative commercial vegetable growing area in the <u>Water Management Sub-zones[*]</u> listed in Table 14.1, cannot exceed what was existing within the <u>Water Management Sub-zones[*]</u> listed in Table 14.1 at 22 July 2019</p> <p>(d) Cattle must be excluded from:</p> <p>i. <u>wetlands^A and lakes^A that are a rare habitat[*] or threatened habitat[*], and</u></p> <p>ii. <u>the beds^A of rivers^A that are permanently flowing or have an active bed[*] width greater than 1 m.</u></p> <p>iii. <u>Rivers^A that are permanently flowing or have an active bed[*] width greater than 1 m, that are crossed by cattle must be bridged or culverted, and the cattle must cross via that bridge or culvert, and run-off originating from the carriageway of the bridge or culvert must be discharged^A onto or into land^A.</u></p>	<p>(a) the implementation of the Farm Environment Plan demonstrates Good Management Practice, for land outside Water Management Sub-zones[*] listed in Table 14.1 and Best Management Practice for land for land within the Water Management Sub-zones[*] listed in Table 14.1.</p> <p>(a) crop rotation intensity at the FMU scale</p> <p>(b) commercial vegetable growing location and land area annually</p> <p>(c) time frames for actions within Farm Environment Plan</p> <p>(d) <u>good management practices[*] to avoid, remedy or mitigate nutrient leaching and run-off, faecal contamination and sediment losses from the land^A</u></p> <p>(e) <u>avoiding, remedying or mitigating the effects of odour, dust or fertiliser[*] drift</u></p> <p>(f) the matters referred to in the <u>conditions^A of Rules 14-5, 14-7 and 14-9</u></p> <p>(g) <u>duration of consent</u></p> <p>(h) <u>review of consent conditions^A</u></p> <p>(i) <u>compliance monitoring</u></p> <p><u>Resource consent^A applications under this rule^A will not be notified and written approval of affected persons will not be</u></p>
-----------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

³ 10% is calculated based on predicted population growth between 2019 and 2029 (assumed life of the plan). If another baseline date was selected, this area expansion would need to be adjusted.

14-2EX Commercial Vegetable growing not complying with any of the conditions, standards and of Rules 14-2CX or 14-2DX.	The use of <u>land[^]</u> pursuant to s9(2) RMA for any commercial vegetable growing enterprise and any of the following <u>discharges[^]</u> pursuant to ss15(1) or 15(2A) RMA associated with that intensive farming: (a) <u>the discharge[^] of fertiliser[*] onto or into land[^]</u> (b) <u>the discharge[^] of compost[*] onto or into production land[^]</u> (c) <u>the discharge[^] of poultry farm litter[*] onto or into production land[^]</u> That does not meet the conditions in <u>Rules 14-2CX or 14-2DX.</u>	<u>Discretionary</u>		<u>required (notice of applications need not be served[^] on affected persons).</u>
------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------	--	----------------------------------------------------------------------------------------------

Rule Guide:

The location of archaeological sites when defined by a single co-ordinate is unlikely to define the true extent of subsurface archaeological evidence. The 50 metre rule should apply from the outer perimeter of the site.

Some activities in *rare habitats^{*}*, *threatened habitats^{*}* and *at-risk habitats^{*}* are regulated by Rules 13-8 and 13-9. Discharges from agricultural activities at other locations are regulated as follows:

- (a) **Discharges not covered by rules** - Agricultural discharges pursuant to ss15(1) RMA that are not covered by the rules above are a **discretionary activity** under Rule 14-30.
- (b) ~~Activities that do not comply~~ - Except for Rule 14-3, activities pursuant to ss15(1) or 15(2A) RMA that do not comply with the permitted or controlled activity rules above are a **discretionary activity** under general Rule 14-30.

Glossary

A term or expression that is defined in this glossary is marked with the symbol * when used in the Plan.

A term or expression that is defined in the Resource Management Act 1991 (RMA) and used in the Plan, but which is not included in this glossary, has the same meaning as in the RMA. Definitions provided in the RMA are not repeated in this glossary. A term or expression that is defined in the RMA is marked with the symbol

^ when used in the objectives, policies or rules of the Plan, this glossary and the schedules to the Plan, other than Schedules F, G and I.

When:

- * is not used to identify a term anywhere in the Plan, or
- ^ is not used to identify a term in the objectives, policies or rules of the Plan, this glossary or the schedules to the Plan

the term has its ordinary meaning.

...

Good management practices refers to evolving practical measures and methods, including those established in industry-based standards, which are used at a sector or community level to minimise the effects of discharges to *land*[^] and *water*[^].

...

Nutrient management plan means a plan prepared annually in accordance with the Code of Practice for Nutrient Management (NZ Fertiliser Manufacturers' Research Association 2007) which records (including copies of the OVERSEER® input and output files of a recognised nutrient management model used to prepare the plan) and takes into account all sources of nutrients for intensive farming and identifies all current and relevant nutrient management practices and mitigations, and which is prepared by a person who has ~~both a Certificate of Completion in Sustainable Nutrient Management in New Zealand Agriculture and a Certificate of Completion in Advanced Sustainable Nutrient Management from Massey University.~~

Commercial vegetable growing means using an area of land greater than 4 ha for producing commercial production of vegetable crops for human consumption, on a horticultural farm. It includes the whole rotational cycle, being the period of time that is required for the full sequence of crops, including any pasture phase in the rotation. Fruit crops, vegetables that are perennial, dry field peas or beans and other low intensity horticultural crops are not included.

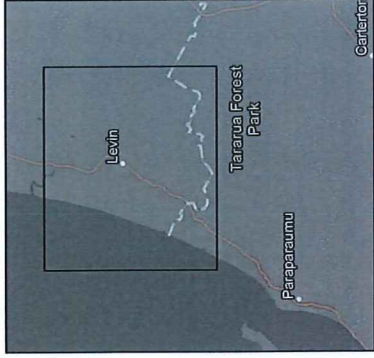
Enterprise means one or more parcels of land held in single or multiple ownership to support the principle land use, or land on which the principle land use is reliant, which constitutes a single operating unit for the purposes of management

Farm means a property, area of land, or enterprise used for pastoral farming, horticultural farming, arable farming, or mixed farming, other than a farm engaged in intensive indoor primary production

Horticultural farming means farming where the predominant activity is growing food or beverage crops for human consumption (other than arable crops), or flowers for commercial supply

Appendix 1 Estimated vegetable growing land in the Horowhenua FMU

- LCDB v4.1 - Short Rotation Cropland
- Vegetable Grower FEPs
- One Plan Target Water Management Sub Zones
- Horowhenua Freshwater Management Unit

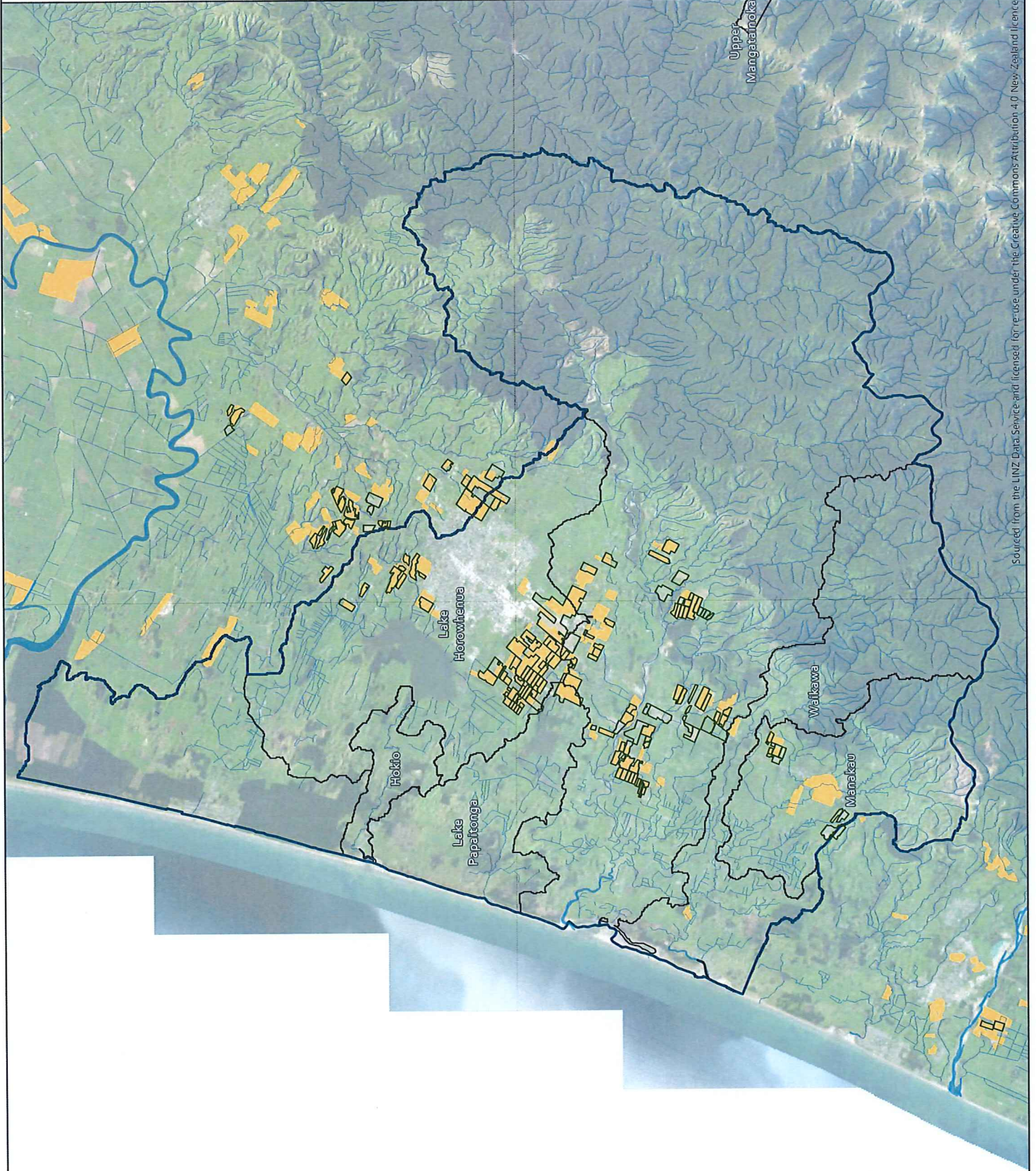


Horicultural Land - Horowhenua

Project: Plan Change 2 Author TN

Client: Hort NZ Date Oct 2019

Ref: 001 Size A3



Sourced from the LINZ Data Service and licensed for reuse under the Creative Commons Attribution 4.0 New Zealand licence