

SUBMISSION ON

Horizons Water Allocation Framework

30 July 2023

To: Horizons regional Council

Name of Submitter: Horticulture New Zealand

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OVERVIEW

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Our submission

Horticulture New Zealand (HortNZ) thanks Horizons Regional Council for the opportunity to submit on the Water Allocation Framework and welcomes any opportunity to continue 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 are set out in our submission below.

HortNZ's Role

Background to HortNZ

HortNZ represents the interests of approximately 5,500 commercial fruit and vegetable growers in New Zealand who grow around 100 different fruit, and vegetables. The horticultural sector provides over 40,000 jobs.

There is approximately, 80,000 hectares of land in New Zealand producing fruit and vegetables for domestic consumers and supplying our global trading partners with high quality food.

It is not just the direct economic benefits associated with horticultural production that are important. Horticulture production provides a platform for long term prosperity for communities, supports the growth of knowledge-intensive agri-tech and suppliers along the supply chain; and plays a key role in helping to achieve New Zealand's climate change objectives.

The horticulture sector plays an important role in food security for New Zealanders. Over 80% of vegetables grown are for the domestic market and many varieties of fruits are grown to serve the domestic market.

HortNZ's purpose is to create an enduring environment where growers prosper. This is done through enabling, promoting and advocating for growers in New Zealand.



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.



Executive Summary

Our submission

Horticulture New Zealand is aware that there are other high-level consultations which will inform the Horizons NPSFM 2020 plans that will likely further inform and influence documents and frameworks such as the Water Allocation Framework.

Horticulture is diverse and spread out across the region. Outside of the Specified Vegetable growing area in Horowhenua, there is production in the Ohakune area and Whanganui - Rangitikei areas of the region. Water sources, and requirements in operations vary depending on crops grown and whether the water is required for irrigation or post-harvest use.

Horticultural produce grown in the region supports the health and well-being of the population. Further to this there is greater levels of efficiency and more considered use of freshwater to meet crop demand. Recognition of this should be given to horticulture through the Water Allocation Framework

A considerable amount of allocated water is used for hydroelectric generation. There needs to be greater understanding and discussion about when water is taken and diverted from one water body to another, and the impact this has on other users of freshwater that contribute to the health and well-being of the population.

We welcome the opportunity to speak with Horizons (Manawatu-Whanganui) Regional Council further, especially as other NPSFM 2020 consultations occur that may impact the Water Allocation Framework.

Submission

1. Horticulture in the Horizons region

The Horizons (Manawatū-Whanganui) region is an important part of the national food production system. The region is host to a diverse range of horticultural production.

There is approximately 4,000 ha of horticultural land in the region, approximately 3,647 ha of which is planted in vegetables¹. Horticultural crops include potatoes, broccoli, lettuce, onions, peas, silverbeet, carrots, asparagus, cauliflower, cabbage, pumpkin and kiwifruit. The tables below outline type of crops grown and ha in the fruit and vegetable sub-sets of Horticulture.

Table 1. Fruit by ha grown in Horizons (Manawatū-Whanganui) region

Kiwifruit	Summerfruit	Avocado	Citrus	Berryfruit	Nuts	Olives	Other sub.trop	Other fruit	Total
116	13	3	1	20	25	34	28	2	242

Table 2. Vegetables grown by ha in Horizons (Manawatū-Whanganui) region

Asparagus	Broccoli, cab, cauli	Carrots	Peas & beans	Lettuces	Onions	Potatoes	Squash	Sweetcorn	Other	Total
191	695	191	224	315	281	984	6	25	735	3647

Within the Horizons region is the nationally significant Specified Vegetable Growing Area (SVGA), Horowhenua. This area is recognised for its role and importance in production of fresh vegetables for the national food supply network.

1.1. Horticulture in the northern Horizons region

Ohakune in particular, has an important role extending the seasonal availability of crops such as potatoes, carrots, parsnip and brussel sprouts. The Ohakune season, which enables supply of root crops to the fresh domestic market, runs from February until October which dovetails into when Pukekohe supply these crops over summer. The cool climate and altitude are critical to production of these crops.

¹ [freshfacts-2020.pdf](#)

Much of the freshwater used in vegetable production in this area is taken from water sources, such as rivers and used to support operations.

1.2. Horticulture in the Southern and coastal areas of the Horizon's region

The Horowhenua is a nationally recognised vegetable production area². Most of the grower's freshwater in this area is sourced from groundwater via metered bores. The predominant type of production is commercial vegetable production, including asparagus, leafy greens, brassicas, potatoes and onions. There are also small amounts of fruits and other vegetables produced here.

Through Rangitikei and Whanganui there are process vegetable producers, asparagus, kiwifruit and berryfruits.

1.3. Freshwater uses in horticultural production

Freshwater is used for two main purposes in horticultural production. This is for irrigation and post-harvest washing and processing of fresh vegetables ready for market.

1.3.1. IRRIGATION

Water takes for irrigation of horticultural crops are used to supplement rainfall. Irrigation is used more frequently in the summer months when rainfall is lower, and typically less through the winter months. Irrigation of crops is matched to crop demand, and it is important to note that over irrigation of a crop can be as problematic as underwatering a crop. Many factors influence how much water a crop will require, including type of crop, stage in growth cycle, climatic conditions etc³. Generally growers work within their local climate and environment to ensure crops receive adequate water to produce a marketable yield.

1.3.2. POST-HARVEST WATER REQUIREMENTS

Growers need to work within food safety and market requirements to ensure produce is safe and fit for human consumption⁴. Part of food safety frameworks which are incorporated into commercial accreditation programmes such as NZ GAP is the requirement to test water for contaminants such as e. coli. It is important water used to wash produce is of a quantity and standard to ensure produce is clean and safe for consumers before it makes it to market. In addition to water testing and food safety processes within an operation, produce sold through retailers and markets is subject to random testing to provide consumers confidence that the produce they purchase has been grown and produced in a way that it is safe to eat.

2. Food security

² Horowhenua is one of the two Specified Vegetable Growing areas identified in the NPS FM 2020

³ [CHAPTER 2: CROP WATER NEEDS \(fao.org\)](#)

⁴ [2019-07-24-Guidelines-for-Fresh-Produce-Food-Safety-2019-WEB.pdf \(hortnz.co.nz\)](#)

Paris Agreement speaks to a ‘fundamental priority of safeguarding food security’ and action in a manner that does not threaten food production. Food security is a nationally important issue which needs to be addressed at a strategic level. We have a national food producing system that relies on growing vegetables and fruit in pockets of highly productive land (HPL), with good climate and access to freshwater.

The Horizons region plays a critical role in the national domestic supply of fruit and vegetables. The Horowhenua area in particular is recognised for its productive capacity. The soils and climate provide an ideal climate for growing horticultural crops. Māori have had a long history of cultivation, with evidence of cultivation and gardening around settlement sites across the Manawatū-Whanganui area, particularly in Horowhenua and Whanganui. This helped to support a robust pre-colonial economy with crops being traded with other communities outside the region⁵. Horizons still maintains a high degree of crop diversity with a climate that is ideal for growing a wide range of horticultural crops⁶.

The price of NZ grown fresh fruit and vegetables has been steadily increasing prior to these weather events⁷. This can be attributed to labour shortages, increased costs in compliance, increased costs of horticultural supplies as well as freight and energy costs⁸. The increase of energy costs directly impacts the cost of production in New Zealand of fresh produce. Consumers are price driven, and the consequence of high production costs of New Zealand produce, is that retailers will look to importing produce, or substitutes to meet consumer expectations of price. Importing fresh fruit and vegetables produced in other countries that can otherwise be grown in New Zealand increases carbon leakage due to freight and supports less climate-friendly growing and environmental practices in other countries.

2.1.1. WEATHER EVENTS AND THE IMPACT ON DOMESTIC FOOD SUPPLY

Vulnerabilities in our domestic food supply network have been highlighted during recent weather events with availability of fresh New Zealand grown produce being impacted by the recent rain events⁹, and Cyclone Gabrielle causing damage to key horticultural growing areas such as Pukekohe, Northland, and The East Coast regions of Gisborne and Hawkes Bay¹⁰.

While the Horizons region was not directly impacted by these events, this puts pressure on growers in less-impacted areas to fill the supply gap created by large scale disruption in other key growing areas. Many growers in the region have pointed out that in previous years they have experienced more localised weather and climate related events which has caused significant disruption to their

⁵ [Heritage resources: Heritage \(doc.govt.nz\)](#)

⁶ [NIWA ManawatuWanganui Climate WEB.PDF](#)

⁷ [Fruit and vegetables drive up annual food prices | Stats NZ](#)

⁸ [Food prices are up, but the cost to grow it has skyrocketed | Stuff.co.nz](#)

⁹ [Auckland storm event 9 May 2023 rapid analysis \(knowledgeauckland.org.nz\)](#)

¹⁰ [Cyclone Gabrielle's impact on the New Zealand economy and exports - March 2023 | New Zealand Ministry of Foreign Affairs and Trade \(mfat.govt.nz\)](#)

operations¹¹, and the pressure has been on other areas to ensure there is a continued supply of fresh produce to support the population.

2.1.2. CARBON LEAKAGE AND RISK TO LOCAL HORTICULTURAL INDUSTRY

Without reliable and secure access to freshwater, domestic horticultural production is put at risk.

The price of NZ grown fresh fruit and vegetables has been steadily increasing prior to these weather events¹². This can be attributed to labour shortages, increased costs in compliance, increased costs of horticultural supplies as well as freight and energy costs¹³. Uncertainty regarding freshwater supply can cause further stress and risk to production, further impacting supply and cost. Consumers are price driven, and the consequence of high production costs of New Zealand produce, is that retailers will look to importing produce, or substitutes to meet consumer expectations of price.

Importing fresh fruit and vegetables produced in other countries that can otherwise be grown in New Zealand increases carbon leakage due to freight and supports less climate-friendly growing and environmental practices in other countries.

2.1.3. NATIONAL DIRECTION AND SUPPORT FOR HORTICULTURE

The recognition of SVGA is one facet of the concern at a national level about the risk to local horticultural production.

The National Policy Statement for Highly Productive Land (NPS HPL) came into effect October 2022 and also provides a clear direction about how to preserve productive land, of which horticulture is reliant.

Minister Parker's letter to Regional Council sent in April 2023 sought information about how vegetable growing is being provided for in NPSFM plans.

The recently released National and Built Environment Act select committee report has recommended the NBA must provide direction on enabling supply of fresh fruit and vegetables¹⁴.

In addition, the Aotearoa Horticulture Action Plan seeks to provide a framework to grow the value of the horticulture industry to \$12 billion by 2035¹⁵.

Together these are some examples of how the national direction is leaning towards a supportive environment for the Horticulture industry, of which we see elevation of water for horticultural purposes in the Horizons Water Allocation Framework being a key component.

¹¹ [NIWAsts66.pdf](#)

¹² [Fruit and vegetables drive up annual food prices | Stats NZ](#)

¹³ [Food prices are up, but the cost to grow it has skyrocketed | Stuff.co.nz](#)

¹⁴ [404 Not Found - New Zealand Parliament \(www.parliament.nz\)](#)

¹⁵ [Growing together 2035 - Aotearoa Horticulture Action Plan \(February 2023\) \(mpi.govt.nz\)](#)

3. Water Allocation Framework

Horticulture New Zealand is aware that there are other high-level consultations which will inform the Horizons NPSFM 2020 plans that will likely further inform and influence documents and frameworks such as the Water Allocation Framework. We welcome the opportunity to be a part of future discussions about the horticulture industry and its needs and requirements of freshwater and how these plans and documents can incorporate these.

As part of our submission development, a workshop was held with growers to better understand their views on the water allocation framework and freshwater requirements.

Below are our responses and thoughts to the questions Horizons are currently consulting on regarding the Water Allocation framework.

3.1. Essential takes:

How can we prioritise the health and well-being of wai-māori while ensuring people and animals have access to the water they need to stay healthy when water levels are low?

The horticulture sector plays an important role in food security for New Zealanders. Over 80% of vegetables grown are for the domestic market. The production of food and food security is a resource management issue which has been well incorporated into the resource management system to date, however, is being recognised as an important national issue recently (including in the recommendations of the Select Committee in relation to the new resource management legislation).

Two important vegetable growing areas are recognised in legislation (NPSFM 2020), these are the Specified Vegetable Growing Areas (SVGA) of Pukekohe and Horowhenua. The SVGA are recognised in legislation due to their national significance and role producing fresh fruits and vegetables for the domestic market and the food security of New Zealanders.

Domestic food supply and vegetables is identified in the current One Plan as a value for water¹⁶. Given the SVGA and this existing recognition, it is important to have this included in the WAF.

Minister Parker recently wrote to each Council to ask how vegetable production will be provided for in NPSFM plans. HortNZ believes inclusion of prioritising water for horticultural production is fundamental to enabling vegetable production in the Horizons region.

Further to this, the recent Select Committee report on the National and Built Environment Act has recommended that the NBA provide direction on enabling the supply of fresh fruit and vegetables. Enabling production of fresh produce through recognition and prioritisation of water for horticulture through the Water Allocation Framework is an active move towards supporting the overall health of

¹⁶ [PART B2: SURFACE WATER MANAGEMENT VALUES: \(horizons.govt.nz\)](https://horizons.govt.nz/part-b2-surface-water-management-values)

the population by ensuring there is fresh, safe and healthy locally grown produce available.

The alternative is to import fresh produce which has many issues, firstly this supports carbon leakage and subsidises poorer and less regulated environmental practices in other countries, while simultaneously depriving the New Zealand population of fresh, healthy safe New Zealand grown produce. This also leaves the New Zealand population vulnerable to supply disruptions from international shipping and transport issues.

Horticultural business needs for freshwater are no different from other types of primary production which are more adequately provided for at times of low flow. We would like better clarity and transparency about how low-flow levels are set. There is a need to balance modelling with the realities of what is happening with the rivers.

Recognition needs to be given to the wider role horticulture plays in the overall health and well-being of the population, transition to a low-emissions economy and efficiencies in water use in place in horticultural operations that are likely greater than in other types of primary production. The opportunity is to consider and reward users of water that demonstrate efficiency and sustainable approaches to water use and production.

HortNZ consider there can be multiple 'levels' in the flow regime - the NPSFM does not require that Councils set one minimum flow level at which (most) takes are restricted. A more nuanced water allocation framework, with multiple flow trigger levels to trigger a management response (e.g. this would enable a framework that restricts some takes/while continuing to provide for 'essential takes' before the minimum flow limit required to achieve environmental flows and levels (set to meet 3.16 of the NPSFM) is reached.

The current One Plan recognises as an essential takes, takes which if to cease *'would significantly compromise a community's ability to provide for its social, economic or cultural wellbeing or its health or safety (including the hygienic production and processing of perishable food)'* - this is an important provision for enabling packhouses to wash produce (necessary for health and safety reasons as part of food supply); HortNZ considers that this activity could continue to be provided for through a flow regime with multiple management levels (while still providing for the health of water).

This concept seeks to give the most reliability to the most efficient and second hierarchy activities and other users can access what the river can give at appropriate times, recognising that the river may be more able to give water at higher flows necessitating storage for the least efficient, less sustainable and least equitable users.

While there are animal welfare considerations in relation to essential takes for animals, it is worth noting that stock can be transported if necessary to other areas with less water constraints, while plants and seeds sown that are intended for human consumption cannot be moved. HortNZ consider there is the ability to provide a framework which enables (to a point) provision of a small amount of

water that keeps the rootstock of these plants alive – especially semi-permanent orchard crops.

We consider stock drinking water in the third hierarchy of Te Mana o te Wai, while we accept stock drinking water is recognised in s14 of the RMA, it is limited - to be reasonable and not likely to have an adverse effect¹⁷. We believe there are many ways stock drinking water can be managed and mitigated, including water storage or transportation.

3.2. Zero, fully and over-allocated water management zones

How can Horizons phase out and prevent future over-allocation while meeting our region’s animal welfare and economic needs?

HortNZ believes that human health needs also need to be considered as part of this section. Horticultural businesses have an economic function, they have a greater role to play in the provision of fresh NZ grown fruit and vegetables to support a healthy population. The purpose for which the water is being used needs to be considered.

We would like to have better understanding of the catchments identified as over allocated. We note many are inland, or higher up within a catchment or FMU, yet the impacts of this are not continued through lower parts of the catchments. How much of the water allocated in these areas is being taken and diverted to other water bodies for hydroelectric generation? The consultation information states that 94.2% of water is allocated for hydroelectricity generation and some of the hydro schemes in the Horizons region take water from a waterbody in one catchment and divert it to another. We believe this is fundamentally problematic and would like better clarity and understanding how this impacts other users of freshwater – particularly those involved with primary production and horticulture. We understand this has impacted on horticultural consent applications for freshwater. As one grower stated, “there is no use turning the lights and the stove on if you have nothing to cook.”

Particularly for catchments that are over-allocated or nearing overallocation, it is important to understand what is the paper allocation vs the actual use as this is important for understanding the necessary plan response to addressing over allocation, as the NPSFM requires. We believe there needs to be a greater conversation with Council about horticulture and how water is used in the production of fresh fruit and vegetables.

Water in horticultural operations is used for both irrigation and post-harvest washing of produce as well as hygiene purposes. Irrigation water is used to support a crops water demand requirements when there is insufficient rainfall. The demand for irrigation water is less than that for post-harvest washing of produce. This is similar to that in other industries such as dairy production, where water is used for washing and hygiene purposes as well as irrigation of pasture.

Growing a marketable yield requires sufficient water to meet crop demand. Over-watering a crop can be as problematic as under-watering a crop. It can lead to

¹⁷ [Resource Management Act 1991 No 69 \(as at 13 April 2023\), Public Act 14 Restrictions relating to water - New Zealand Legislation](#)

increased pest and disease as well as crop failure. This is similar to nutrient and fertiliser application. These need to be matched to crop demand based on the stage the crop is in its growth cycle and is a defining difference between horticultural production and other types of primary production.

Horticulture is a significant employer and economic contributor in the Horizons region. An operation may provide employment to 50 people in a small rural area. This is both significant in terms of the viability and survival of smaller rural communities and speaks to the wider role horticultural business play in supporting these communities.

3.3. Reasonable and efficient volumes for people

What do you think about Horizons' water allocation framework's approach to current volumes for people and growing districts?

HortNZ believes there is an imbalance between freshwater needed to meet peoples' domestic needs and the needs of horticultural production of fresh fruit and vegetables to support the population.

What is reasonable to one individual may be unreasonable to another. Household allocations and water metering help provide guidance and accountability to an individual for their use of freshwater.

HortNZ consider that there is a need to be mindful, when providing water for domestic use, of not invertedly prioritising commercial and industrial uses (due to often being supplied by the same Council networks) where provisions for municipal water are applied too generally.

HortNZ also consider that water for people's domestic use (drinking water, sanitation etc.) is included in the second priority of the Te Mana o Te Wai hierarchy (the health needs of people), however other municipal users which may be commercial or industrial users, are third priority in the Te Mana o te Wai framework.

How can Horizons prioritise the health and the mauri of the regions waterways whilst reasonably and efficiently meeting the domestic needs of our community?

The council could consider installation of water meters and establishing a household allocation akin to that rural properties have - 90m³ per quarter. A user-pays approach could be taken for any additional water used over the household allocation.

Water can be harvested and stored at higher flow times to meet municipal needs. This is another way to reduce pressure on water ways during times of low-flow.

3.4. Water takes for hydroelectricity generation

What are your thoughts on the issues raised about hydroelectricity generation in the Horizons region?

We note that 94.2% of water is allocated for hydroelectricity generation and some of the hydro schemes in the Horizons region take water from a waterbody in one catchment and divert it to another. We believe this is fundamentally problematic

and would like better clarity and understanding of how this impacts other users of freshwater – particularly those involved with primary production and horticulture. We understand this has impacted on horticultural consent applications for freshwater recently and are interested to understand this further.

Electricity and production of electricity through renewable methods, such as hydroelectricity are important to growers and the community at large. There is a distinct difference and impact of water stored, used for generation and returned to the same water source and water taken from one catchment to another. We do not believe this is a good practice to support the mauri of a waterbody.

Fundamentally we believe water for horticultural production and to support the domestic food supply in New Zealand should be treated the same as water for hydroelectricity and domestic use. These are important pillars that support our communities. We believe being second hierarchy doesn't absolve that activity of responsibility to help achieve the well-being of water, so these activities still need to operate at good management practice and may need to consider other ways they can positively contribute to a waterway under pressure, including consideration of storage of water.

Minister Parkers letter, the Select Committee report and the SVGA all provide clear justification to elevate horticulture in the Water Allocation Framework. We believe freshwater needs for horticultural production should be on par, with the recognition given to hydroelectricity in the Water Allocation Framework.