

**BEFORE THE HEARING COMMISSIONER APPOINTED BY THE GREATER WELLINGTON  
REGIONAL COUNCIL**

**IN THE MATTER** of the Resource Management Act 1991 (**the Act**)

**AND**

**IN THE MATTER** of hearing of submissions on Proposed Change 1 to the  
Regional Policy Statement, Hearing Stream 5:  
Freshwater

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**INDUSTRY STATEMENT TO BE TABLED BY EMILY LEVENSON FOR  
HORTICULTURE NEW ZEALAND**

**2 November 2023**

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## **INTRODUCTION**

1. My name is Emily Levenson. I am an Environmental Policy Advisor at Horticulture New Zealand (HortNZ). I work within the Environmental Policy Team on national, regional, and district planning processes across New Zealand. I have been in this role since January 16, 2023.
2. I hold a Bachelor of Science in Urban Studies and Planning from the Massachusetts Institute of Technology (MIT).
3. I worked in urban planning research and environmental policy research for two years while a student at MIT, at Manaaki Whenua Landcare Research, and as an independent contractor assisting researchers at the Victoria University of Wellington and Scion.
4. I am an associate member of the Environmental Institute of Australia and New Zealand (EIANZ).
5. Since beginning my role at HortNZ, I have met with growers across New Zealand to better understand their horticultural operations and how resource management issues impact them.

### *Involvement in the proceedings*

6. When I joined HortNZ in January 2023, I took on the role of supporting Wellington RPS proceedings.
7. I have had meetings and conversations with planners and other advisors since April 2023 seeking information to support the HortNZ submission and evidence produced for this process.

## **PURPOSE AND SCOPE OF EVIDENCE**

8. This statement responds to the Section 42A report recommendations regarding Horticulture NZ's submission and further submissions on Change 1, specifically on Hearing Stream 5: Freshwater.

## **OVERVIEW OF HORTICULTURE NZ**

9. HortNZ is the industry body for the horticulture sector, representing growers who pay levies on fruit and vegetables sold either directly or through a post-harvest operator, as set out in the Commodity Levies (Vegetables and Fruit) Order 2013.
10. On behalf of growers, HortNZ takes a detailed involvement in resource management planning processes as part of its national and regional environmental policy response.

## RESPONSE TO SECTION 42A REPORT – TOPIC: FRESHWATER

### **Key issues and outcomes sought**

11. HortNZ seeks recognition that domestic food supply, especially supply of fresh fruits and vegetables, is a human health need and that water allocation should support low emissions activities.

### **Te Mana o Te Wai**

#### *The second obligation to human health*

12. Te Mana o te Wai establishes a hierarchy of obligations. The first priority is to the health and wellbeing of water bodies and freshwater ecosystems. The second priority obligation under the Te Mana o te Wai framework is the health needs of people (such as drinking water).
13. HortNZ believes the production of fresh produce for direct human consumption meets the ingestion test similar to that of drinking water. The freshwater requirements to cultivate, grow and pack fresh produce needs to be of a standard that is safe for human consumption.
14. HortNZ sees a distinction between the need for humans to eat fruits and vegetables for the health the ability of people to generally provide for their social, economic and cultural well-being.
15. Generally, food production and supply can fit within the third-tier priority. However, access to fresh fruits and vegetables is a fundamental requirement of a healthy population and human health needs and requirements, the same as access to safe drinking water.<sup>1,2</sup>
16. Most vegetables and many fruits, particularly summerfruit, are grown for the domestic market, meaning that they directly feed New Zealanders.
17. The Wellington region grows approximately 472 ha of brassicas (broccoli, cabbage and cauliflower), lettuces, other vegetables, apples, kiwifruit, summerfruit and berries.<sup>3</sup> For comparison, the Manawatū-Whanganui region, which currently supplies most of Wellington's vegetables, contains about 3,247 ha of horticultural production.<sup>4</sup> Wellington is highly dependent on other regions for its food supply, but future horticultural production within the Wellington region could support regional resilience should weather

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<sup>1</sup> <https://nutritionfoundation.org.nz/nutrition-facts/food-groups/vegetables-and-fruit/>

<sup>2</sup> <https://www.health.govt.nz/publication/eating-and-activity-guidelines-new-zealand-adults>

<sup>3</sup> Fresh facts 2023 <https://unitedfresh.co.nz/technical-advisory-group/fresh-facts>

<sup>4</sup> Ibid.

events, biosecurity incursions, or consenting rules from other authorities impact that inter-regional flow of produce.

*Fruit and vegetable consumption is essential for human health*

18. Food, and in particular vegetables and fruit, is an essential human health need. Food falls under the first tier of Maslow's hierarchy of needs, alongside drinking water, shelter and air to breathe. Low vegetable and fruit consumption is associated with increased risk of developing some cancers, type 2 diabetes, cardiovascular disease, and obesity.<sup>5</sup>
19. Data from the New Zealand Health Survey indicates that in 2018/19 and 2019/20, only 33% of New Zealand adults met the combined fruit and vegetable intake guidelines (3+ vegetables, 2+ fruit servings per day), and this has not changed significantly since 2006/2007.<sup>6</sup>
20. Interviews with public health and nutrition experts found that "the price of meeting micronutrient requirements is very expensive in New Zealand compared to other countries. Without changing the land use, the situation is unlikely to get better, and could get worse."<sup>7</sup> Affordability is a key factor in why people eat less than the recommended intake of fruit and vegetables. If fruit and vegetable growing capacity cannot expand to meet the growing demand with an increased population, the reduced availability of vegetables and fruit and the resultant increased price would impact the health of the most vulnerable people.<sup>8</sup>
21. Otago University has recently modelled the potential health impacts of increased vegetable prices related to freshwater regulations preventing expansion of the vegetable growing area (due to grandparenting and/or pastoral nutrient allocation frameworks). This study found that an increase in vegetable prices of 43 - 58%, would result in a loss of 58,300 – 72,800 Health Adjusted Life Years and health costs of \$490 - \$610 million across the population.<sup>9</sup>

*Providing for the health of New Zealand under Te Mana o Te Wai*

22. We agree with the Section 42a author that the health needs of people is not limited to drinking water in the Te Mana o te Wai hierarchy of obligations and may be one of several matters under that designation.<sup>10</sup>

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<sup>5</sup> [www.health.govt.nz/system/files/documents/publications/adults-dietary-habits-oct22.pdf](http://www.health.govt.nz/system/files/documents/publications/adults-dietary-habits-oct22.pdf)

<sup>6</sup> [www.health.govt.nz/system/files/documents/publications/adults-dietary-habits-oct22.pdf](http://www.health.govt.nz/system/files/documents/publications/adults-dietary-habits-oct22.pdf)

<sup>7</sup> Moore, D., Barton, B., & Young, M. (2019). The value of local vegetable production. Sapere. (p. 15)

<sup>8</sup> Moore, D., Barton, B., & Young, M. (2019). The value of local vegetable production. Sapere. (p. 15)

<sup>9</sup> Cleghorn, Cristina. 2020. The health and health system costs of increasing vegetable prices over time. Wellington: University of Otago, 2020.

<sup>10</sup> S42a Hearing Report: Hearing Stream 5. Topic: Freshwater. (para 560)

23. HortNZ seeks that the production of vegetables and fruit for domestic supply are recognised within the second priority obligation of the Te Mana o te Wai hierarchy.
24. The best way to realise this is to amend the definition of 'health needs of people' newly proposed by the S42a author to include water used to enable the supply of fresh fruits and vegetables. This approach is in line with Clause 129 (g) of the Natural and Built Environment Act (NBEA), which directs that the National Planning Framework must provide direction on enabling the supply of fresh fruits and vegetables.<sup>11</sup>
25. Minister for the Environment Hon David Parker wrote to all regional councils in early 2023 to request information about how vegetable production will be provided for while implementing the NPS-FM. This letter described the importance of a wide geographic distribution of fresh vegetable production to allow New Zealanders continued access to healthy food options at a reasonable cost. The letter was interested in how councils are enabling crop rotation and expansion of vegetable growing area in their freshwater planning. Recognising the supply of vegetables (along with fruit) in the second hierarchy will help achieve this aim.
26. The S42a author writes, "In my opinion the Te Mana o te Wai hierarchy of obligations would place food production in the third priority of the hierarchy - the ability of people and communities to provide for their social, economic, and cultural wellbeing, now and in the future. As such, it would be inappropriate to include the amendment sought by the submitter in the list of health needs of people."<sup>12</sup>
27. HortNZ disagrees with this analysis. Food production is necessary for human nutrition, and fruits and vegetables provide essential nutrients not found in other food groups. People need food for their basic survival and for their health.
28. The recent high court decision relating to the Specified Vegetable Growing Area Policy in the NPSFM 2020 notes "Continuity of supply in fresh vegetables is important for national food security and human health".<sup>13</sup>
29. The value of domestic food supply in resource allocation decision making has been recognised within a series of policy instruments including:
  - (a) NPSFM specified vegetable growing areas;
  - (b) Waikato PC1 Policy 3;

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<sup>11</sup> Natural and Built Environment Act 2023. Clause 129 (g) Accessed online <https://www.legislation.govt.nz/act/public/2023/0046/latest/LMS847877.html>

<sup>12</sup> S42a Hearing Report: Hearing Stream 5. Topic: Freshwater. (para 565).

<sup>13</sup> *Muaūpoko Tribal Authority Inc V Minister for Environment* [2022] NZHC 883 [29 April 2022].

- (c) Horizons PC2 Policy 14-6; and
- (d) Canterbury PC7 section 42A reply, Policy 4.36A.

*Domestic food production is essential for New Zealand*

- 30. Food that is produced for domestic consumption is an essential lifeline to feed our population, while exported products of primary consumption may not directly contribute to human health in New Zealand.
- 31. Fresh produce is difficult and expensive to import to our country's geographic isolation. Imported vegetables are typically airfreighted to New Zealand due to their perishability, which causes greenhouse gas emissions. Airfreighting fresh produce has complex logistical considerations and constraints including "the geopolitical risk of relying on another nation for part of our basic food needs".<sup>14</sup> The higher logistic cost of importing produce also increases the price for consumers. Imported produce may not be subject to the same environmental or climate regulations as New Zealand, so exporting our demand may lead to climate leakage.
- 32. New Zealand's domestic food system relies on reciprocity between regions, and a responsible approach to the management of natural resources to provide for the health of the nation. Wellington is particularly vulnerable given its dependence on other regions for the supply of fresh fruits and vegetables to feed its major population centres.
- 33. Given the importance of fruit and vegetables to domestic health, HortNZ considers it appropriate to recognise fruit and vegetables within the second priority obligation of Te Mana o te Wai. This recognition would not negate the need for fruit and vegetable growers to manage their environmental effects through good management practices and to operate within the freshwater limits of their catchments.
- 34. Differentiating the health importance of fresh fruits and vegetables does not undermine the health of the environment because the health of the waterbody remains the first priority obligation.

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<sup>14</sup> AgriChain. *Sensitivity of domestic food supply in SVGAs*. 13 July 2023.

### *Water quality is essential to food safety*

35. Most streams and rivers in NZ are too contaminated with E. coli<sup>15</sup> to be safely used for irrigating vegetable crops that are eaten raw.<sup>16</sup> Commercial fruit and vegetable growers are required to meet Good Agricultural Practice (GAP) standards to sell to supermarkets or to export. These standards include regularly testing water used for production and harvesting for the risk of microbial, physical and chemical contamination to ensure the final production will meet food safety requirements.<sup>17</sup>
36. Given that drinking water and water for horticultural use have to meet similar requirements to ensure safety for human consumption, it is reasonable that they would fall under the same hierarchy of Te Mana o te Wai.

### *The third obligation to social, cultural and economic wellbeing*

37. The third hierarchy of the Te Mana o te Wai is the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.
38. Except for food produced for the domestic market, most food production and primary production more generally is managed within the third priority obligation of Te Mana o te Wai.
39. Enabling communities to provide for their social, economic, and cultural wellbeing in a manner consistent with the NPSFM, requires that second and third priority obligation activities are differentiated.

### **Horticulture is a low emissions land use**

40. HortNZ sought an amendment to Method 48 (i) as follows: "land use change to **lower emissions or** more climate resilient uses is promoted".
41. The S42a author responded, "I disagree with Hort NZ's relief sought in relation to clause (i), to include a reference to land use change that lowers emissions. It is unclear what is intended by this amendment. While I agree there is likely a need for land use change to lower emissions, I do not consider this relates to how water is allocated and this is better addressed through the climate change provisions of the RPS which were the subject of Hearing Stream 3."<sup>18</sup>

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<sup>15</sup> Stats NZ. "River water quality: Escherichia coli". 14 April 2022. Accessed online <https://stats.govt.nz/indicators/river-water-quality-escherichia-coli/>.

<sup>16</sup> Ministry for Primary Industries. *Discussion Document Update: Pathogens in Fresh Fruit and Vegetables in New Zealand*. March 2020. Accessed online <http://www.mpi.govt.nz/dmsdocument/40956/direct>.

<sup>17</sup> NZ GAP. "New Zealand GAP Checklist. GLOBALG.A.P. Equivalent V6.2". [https://www.nzgap.co.nz/NZGAP\\_Public/Growers/Checklists/NZGAP\\_Public/Growers/Checklists](https://www.nzgap.co.nz/NZGAP_Public/Growers/Checklists/NZGAP_Public/Growers/Checklists)

<sup>18</sup> S42a Hearing Report: Hearing Stream 5. Topic: Freshwater. (para 597).

42. On the contrary, water allocation is essential to promote land use change. Horticulture is a low-emissions land use. Domestically produced fruits and vegetables have far lower lifecycle emissions than processed foods, which are often imported, and New Zealand-produced animal products.<sup>19</sup>
43. The NBEA establishes three criteria to guide future allocation of freshwater – sustainability, efficiency and equity.<sup>20</sup> In our view, water allocation decisions should defer to these principles, rather than first-in first-served. Greenhouse gas emissions should be considered under all three criteria.
- (a) Sustainability: Lower emissions activities are more sustainable for the planet because they will reduce warming, thus slowing negative environmental consequences of climate change.
  - (b) Efficiency: Lower emissions activities are more carbon efficient, using less of New Zealand's emissions budget.
  - (c) Equity: Climate change mitigation avoids passing the burden of warming down to future generations. This is a more equitable approach for our children and their children.
44. Horticulture is recognised as a low emissions land use in *Ināia tonu nei: a low emissions future for Aotearoa*, the Climate Change Commission's first advice to Government on climate action in Aotearoa. The advice assumes a 2,000 ha land use conversion to horticulture per year from 2025 to meet our domestic climate targets. It says, "We expect that this could increase in the future if barriers – such as **water availability**, labour, supply chains and path to market – are addressed"<sup>21</sup> (emphasis added).
45. One of the Climate Change Commission's report's "critical outcomes" is "Opening up opportunities for more conversion to lower emissions production systems and land uses, including horticulture."<sup>22</sup> The water availability barrier and enabling of low emissions production can be addressed through Method 48.
46. The need for water allocation to enable horticulture is well-established. A report commissioned to investigate the benefits of a Wairarapa Water

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<sup>19</sup> Drew, J, Cleghorn, C, Macmillan, A and Mizdrak, A, 2020. Healthy and climate-friendly eating patterns in the New Zealand context. *Environmental health perspectives*, 128(1), p.017007. Database accessed online: [ghg-emissions-associated-with-nz-foods-database-840619.xlsx](https://www.epa.gov/ghg-emissions-associated-with-nz-foods-database-840619.xlsx) (live.com)

<sup>20</sup> Natural and Built Environment Act 2023. Clause 156. Accessed online <https://www.legislation.govt.nz/act/public/2023/0046/latest/LMS847921.html>

<sup>21</sup> Climate Change Commission. *Ināia tonu nei: a low emissions future for Aotearoa*. 31 May 2021. Accessed online <https://www.climatecommission.govt.nz/public/Inaia-tonu-nei-a-low-emissions-future-for-Aotearoa/Inaia-tonu-nei-a-low-emissions-future-for-Aotearoa.pdf> (p. 119)

<sup>22</sup> Climate Change Commission. *Ināia tonu nei: a low emissions future for Aotearoa*. 31 May 2021. Accessed online <https://www.climatecommission.govt.nz/public/Inaia-tonu-nei-a-low-emissions-future-for-Aotearoa/Inaia-tonu-nei-a-low-emissions-future-for-Aotearoa.pdf> (p. 131)

Storage Scheme found that the Wairarapa's industries "rely strongly on access to a good, secure water supply" (p. 5).<sup>23</sup>

47. It continued that the Wairarapa may face dents in primary sector employment because of more stringent environmental regulation, including freshwater regulation.<sup>24</sup> The report states, "Better and more productive use of water for existing agriculture and horticulture businesses, including the potential for food-based value-added business, could help off-set some of these long-term impacts [on employment], e.g., Wairarapa being the food basket of the region." (p. 6) The vision of Wairarapa as a food basket that can supplement food supply for the region's population centres will build local resilience. Fulfilling that vision requires sufficient water allocation to support an expansion in horticulture.
48. The AgriBusiness Group conducted economic modelling of three case studies in the Wairarapa, where sheep, beef, dairy and cropping farms are considering irrigating part of their land to diversify to viticulture (a lower emissions production system similar to perennial horticulture) or irrigated cropping. The modelling found significant economic potential for this switch, as well as reduced greenhouse gas emissions. For instance, a traditional sheep and beef farm that switched to a diverse land mix with dryland beef and sheep, grapes and cropping would see a 14% decrease in emissions under the model.<sup>25</sup> This diversification of land use is economically viable and environmentally sustainable but requires sufficient water resources to make it happen.
49. If the Wellington region is to produce more of its own fruits and vegetables for resilience of local food supply and to transition to a low emissions economy, water allocation is one tool to support horticultural businesses.

#### *Method 48*

50. It is unclear how the "climate resilient uses" mentioned in Method 48 (i) differ from the "climate change adaptation" mentioned in sub-part (j). Climate resilient uses could be interpreted as a broader way of saying uses with less impact on the climate and more resilience to climatic effects. This meaning could be clarified with the phrase "Lower emissions or more climate resilient uses".

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<sup>23</sup> Utility. *Wairarapa Water Limited: The value of a resilient raw water supply to a community*. 18 December 2020. (p. 5)

<sup>24</sup> Utility. *Wairarapa Water Limited: The value of a resilient raw water supply to a community*. 18 December 2020. (p. 6)

<sup>25</sup> AgriBusiness Group. "Wairarapa Land Use Opportunities: On farm economic and environmental modelling." November 2023. Prepared for Leftfield Innovation Ltd.

## **Conclusion**

51. HortNZ continues to seek recognition of the domestic supply of fresh fruits and vegetables in the second hierarchy of Te Mana o te Wai. New Zealanders need to eat fresh produce for their health and wellbeing, and water allocation to support the supply of fresh fruits and vegetables will build regional resilience and align with national direction.
52. Low emissions activities should be recognised in the water allocation framework to support the overall goals of the Plan Change to reduce regional emissions. Water is essential to enable land use change to lower emissions uses.

**Emily Levenson**

**2 November 2023**