# BEFORE A HEARINGS PANEL OF THE FAR NORTH DISTRICT COUNCIL

# I MUA NGĀ KAIKŌMIHANA MOTUHAKE O TE HIKU O TE IKA

**Under the** Resource Management Act 1991 (RMA)

In the matter of a request for rezoning of land in the Kerikeri-Waipapa area

under the proposed Far North District Plan

# STATEMENT OF EVIDENCE OF REECE BLACKBURN HILL IN SUPPORT OF SECTION 42A REPORT FOR HEARING 15D

**RURAL PRODUCTIVITY** 

10 September 2025



#### 1. INTRODUCTION

- **1.1** My full name is Reece Blackburn Hill.
- 1.2 I am an independent Soil Consultant and Director of BeatsonHill Limited trading as Landsystems. I have been full time in this position since April 2018.
- 1.3 I hold a Doctor of Philosophy in Soil Science (2000) and a Master of Applied Science in Soil Science (1994) from Lincoln University; and a Bachelor of Science from the University of Waikato (1988) with a double major in Biological and Earth Sciences. My additional qualifications include a Correspondence Certificate in Wine from the Eastern Institute of Technology and the Advanced Sustainable Nutrient Management FLRC Short Course from Massey University.
- 1.4 I have over 28 years of experience in soil science, encompassing soil characterisation, soil mapping, land use capability (LUC) assessment, regional soil policy, soil quality, and catchment and land management. My work experience includes mapping forest soils in Tasmania, serving as a soil scientist at Waikato Regional Council for 19 years, and my current full-time position as an independent soil consultant at Landsystems since 2018. As a consultant at Landsystems, I have conducted several hundred property-scale soil and land use capability assessments on properties from 1 to 200 hectares, many of which required evaluating high-class soils and highly productive land. My soil policy experience includes acting as the Lead Technical Writer for Chapter 14 (Soils) of the operative Waikato Regional Policy Statement (2016) and providing technical soils expertise for the Waikato District Plan (Stage 1) review (2020), which focused on subdivision rules and high-class soils.
- 1.5 I have been asked to provide evidence in relation to rural productivity, to support the evaluation report prepared under s 42A of the RMA.
- 1.6 I have not visited or undertaken an on-ground LUC assessment of the Kiwi Fresh Orange Company Limited land (KFO Site) or the alternative option sites (the Western Area, Southern Site, and Southeastern Site) mentioned in Mr Hunt's

Statement of Evidence. However, I have some familiarity of the soils and New Zealand Land Resource Inventory (**NZLRI**) mapped LUC units for the general area through my involvement with the proposed Horticulture Precinct and LUC mapping and expert evidence for ENV-2022-AKL-000165: *Neil Construction Limited v Far North District Council*.

- 1.7 I have read the evaluation report prepared in accordance with s 42A of the RMA. I have also read the evidence prepared by Mr Hunt on behalf of Kiwi Fresh Orange Company Limited (KFO) in support of its submission, including the report Kiwifresh Orange Company NPS-HPL Productivity Assessment AgFirst 2025 (AgFirst NPS-HPL Report) (Appendix A of Mr Hunt's evidence).
- 1.8 I have read and am familiar with the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023. I have complied with the Code of Conduct in preparing my evidence and will continue to comply with it while giving oral evidence before the Hearings Panel. I confirm that my evidence is within my area of expertise except where I state that I am relying on the evidence of another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed in my evidence.

# 2. SCOPE OF EVIDENCE

- 2.1 My evidence focusses on soil and LUC matters and their adequacy in relation to the National Policy Statement for Highly Productive Land (NPS-HPL). With regards to rural productivity, matters of productivity assessment using economics and policy are outside my area of expertise.
- **2.2** My evidence will cover the following matters:
  - (a) site description and the proposal;
  - (b) highly productive land status;
  - (c) site specific soil mapping;

- (d) rural productivity;
- (e) comparison with alternative sites;
- (f) effects on the district's overall productive capacity; and
- (g) conclusion.

## 3. SUMMARY OF EVIDENCE

- 3.1 My evidence, prepared in relation to rural productivity, supports the evaluation report under s 42A of the RMA. My evidence focuses on soil and LUC matters and the analysis of the KFO Site's productive capacity by Mr Hunt (including the AgFirst NPS-HPL Report).
- 3.2 The memorandum by Hanmore Land Management (HLM) provided with Submission #554 provides a more detailed (finer scale) LUC survey map of the KFO Site and description of the methods and findings (HLM Survey). While providing a preliminary on-ground assessment of the LUC units for the KFO Site, the HLM Survey possesses inherent limitations and a lack of methodological transparency that render it insufficient as a definitive basis for reclassifying land capability or challenging the broader NZLRI classification.
- **3.3** Based on soil and land characteristics alone, I maintain that the KFO Site, particularly its LUC 3s2 land, holds at least some potential for horticulture.
- 3.4 Furthermore, the comparative analysis of alternative sites in the AgFirst NPS-HPL Report suffers from an inconsistency in data granularity, relying on broad NZLRI data for the alternative sites while using the more detailed (albeit limited) site-specific LUC mapping provided by the HLM Survey for the KFO Site. It also has an inconsistent approach to identification of non-productive areas.

- 3.5 My re-evaluation of the Southeastern Site, based on more recent S-Map data indicating Ultic Soils, directly challenges the inferred horticultural potential in the AgFirst NPS-HPL Report, suggesting a lower productive capacity based on soil properties than it infers. It is therefore difficult to conclude that the KFO Site has a relatively lower productive capacity than the Southwestern Site.
- 3.6 More importantly, Mr Hunt's comparative analysis does not include the option of primarily providing for development capacity through intensification, which I understand to be the Proposed District Plan Recommendations Version (PDP-R) option outlined in the s 42A report. This would avoid the loss of productive capacity altogether.
- 3.7 While the KFO site *arguably* includes a relatively small proportion of the regional resource of highly productive soils, there are cumulative effects from the irreversible loss of productive soils to urbanisation. These should also be considered.

## 4. SITE DESCRIPTION AND THE PROPOSAL

- In the KFO Site, owned by KFO, is a rural property of approximately 199.2 hectares located between the townships of Kerikeri and Waipapa. Its boundaries are defined by the Kerikeri River to the north and east, State Highway 10 to the west, the Bay of Islands Golf Club to the southeast, and a dairy farm to the southwest. The topography is largely flat but includes steep vegetated slopes towards the Kerikeri River. A significant portion of the land is low-lying and subject to a flood hazard. Topography consists of a low-lying, mostly flat terrace landform, with some steep areas, at an elevation of about 70 metres above sea level.
- 4.2 The soils are a mix of old basalt volcanic soils and terrace soils, with the majority classified under the LUC system as LUC class 3 land, which is considered highly productive land under the transitional definition of the NPS-HPL. The site is an amalgamated drystock farm, currently used for dairy grazing, beef finishing, and rotational maize cropping, although the land was previously used for dairy farming.

4.3 KFO has submitted a proposal to the Far North District Council for the urban rezoning of approximately 197 hectares of land located between the Kerikeri and Waipapa townships. This submission (#554) relates to the Proposed Far North District Plan (PDP) in its entirety. The proposal seeks to change the current Rural Production zoning of the land to a mix of General Residential, Mixed Use, and Natural Open Space zones. In support of this, KFO has provided a comprehensive suite of documents, including a Structure Plan, a Precinct Plan, and a Section 32 report. The Precinct Plan outlines specific objectives and rules for the 'Brownlie Land Precinct', which would apply in addition to the underlying zone provisions to manage development in a comprehensive and integrated way. Key provisions within the precinct relate to the management of infrastructure, flood hazards, and retail floor space to ensure a well-functioning urban environment. Within the Structure Plan provided is a memorandum by HLM presenting a high-level assessment of the LUC units for the KFO Site. Evidence subsequently provided by Mr Hunt<sup>1</sup> includes (in Appendix A) the AgFirst NPS-HPL Report.

#### 5. HIGHLY PRODUCTIVE LAND STATUS

5.1 The distribution of LUC units for the KFO Site based on regional scale (1:50,000 scale) NZLRI-LUC map information has been provided in the AgFirst NPS-HPL Report

Statement of Evidence of Jeremy Hunt on behalf of Kiwi Fresh Orange Company Limited (Rural Productivity), 16 June 2025 (Hunt Evidence).

(Appendix A of Mr Hunt's evidence). For reference I have reproduced the map image in **Figure 1**.



Figure 1: NZLRI-LUC map for the KFO Site (map image reproduced Figure 5 from Appendix A of Mr Hunt's evidence).

- The NZLRI-LUC map information indicates that the LUC map units for the KFO Site are 3s2 (87.0 ha), 3w2 (76.1 ha) and 4e2 (36.1 ha).
- 5.3 My understanding is that the transitional definition of highly productive land under clause 3.5(7) of the NPS-HPL applies to the parts of the KFO site that were mapped as LUC 1, 2 or 3 on the NZLRI maps at the time the NPS-HPL came into force (17 October 2022).

Therefore, under clause 3.5(7) of the NPS-HPL, the KFO Site has 163.1 ha of highly productive land (approximately 81.9% of the 199.2 ha KFO Site area).

# 6. SITE SPECIFIC SOIL MAPPING

- 6.1 The HLM Survey provides a more detailed (finer scale) LUC survey map of the KFO Site and description of the methods and findings.
- 6.2 My understanding of Mr Hunt's evidence is that the HLM Survey is relied on to ascertain the productive capacity of land for land-based primary production, rather than to determine its status as highly productive land.
- 6.3 While I am unclear of the policy basis for this approach, I have responded below.

# **HLM Survey findings**

- 6.4 The HLM Survey provides a LUC map of a 250 ha area encompassing the Site area, with the exception of a 3.34 ha area bounded to the north by Waitotara Drive and to the southeast by the Kerikeri River.<sup>2</sup>
- for the LUC units mapped, and a (finer than regional scale) LUC map based on the on-site soil and land observations made.<sup>3</sup> The LUC map is reproduced in **Figure 2**.
- 6.6 The brief statement of methods in the HLM Survey states that sufficient soil sample holes dug and site observations were made to give an overview of the LUC units present on the site, but notes that further detailed soil mapping is required to identify soil boundaries and exact areas of each LUC unit.
- The map legend includes the classification of versatile land for each of the LUC units, according to the definition of 'highly versatile soils' under the Northland Regional Policy Statement. Under Policy 5.1.1 of the Northland Regional Policy

<sup>2</sup> AgFirst NPS-HPL Report, Figure 2: Current titles of the Site.

<sup>3 &#</sup>x27;Investigation of the proposed site' in the Memorandum by HLM provided with Submission #554.

statement, 'highly versatile soils' include LUC classes 1c1, 2e1, 2w1, 2w2, 2s1, 3e1, 3e5, 3s1,3s2, 3s4 – as mapped in the NZLRI.

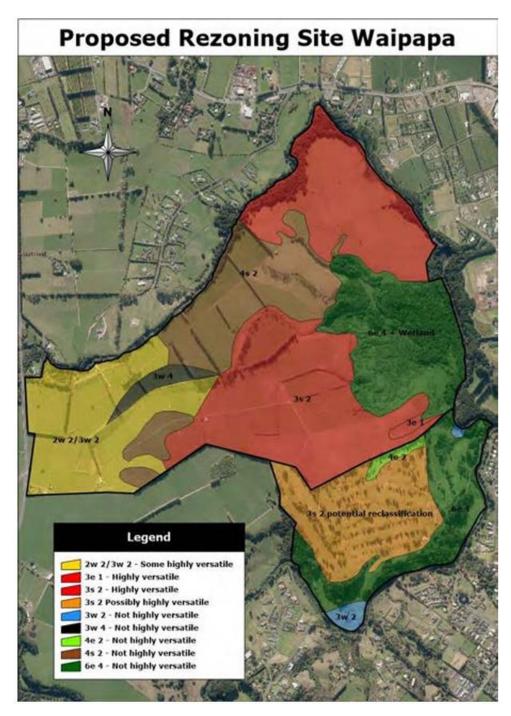


Figure 2: The HLM Survey LUC map.

6.8 The HLM Survey does not include a map of observation locations or the number of observations to support a given map scale and no indicative map scale is included on the map or in the report. I note that the AgFirst NPS-HPL Report in Appendix A

of Mr Hunt's evidence has revised this map and applied a scale of 1:10,000 (Figure 6, section 4.3).

- 6.9 The HLM Survey notes that the area in yellow mapped as 2w2 and 3w2 is a mix of highly versatile (LUC 2w2)<sup>4</sup> and non-highly versatile soils (LUC 3w2) and needs detailed soil mapping to delineate these areas. HLM further notes that the LUC 3s2 golf course area would, in its original, undisturbed state, be classed as highly versatile but that the course development may have altered the land/soil profile sufficiently to justify a reclassification into a less versatile unit, and that further investigation is needed to determine this.
- in the Northland region and applies this to the on-site LUC mapping to determine areas of highly versatile soil on the site. Estimated areas for these are provided in a table in the HLM Survey which I have reproduced in Figure 3.

LUC Unit	Highly versatile	Area (ha)	% of total site
3s 2 (red)	Yes	86	34.4
2w 2, 3w 2 (yellow)	Yes and no	36	14.4
3s 2 – golf course (orange)	Possibly	30	12.0
3w 2, 3w 4, 4e 2, 4s 2, 6e 4	No	98	39.2

Figure 3: Estimated areas of highly versatile land on the KFO Site as mapped in the HLM Survey.

Based on Figure 3, 86 ha (34.4%) of the Site's area is mapped as having highly versatile soil and up to 66 ha (26.4%) may include highly versatile soils.

## **HLM Survey limitations**

The mapping provided in general, and the classification of versatile land based on the LUC units mapped, look to be generally sound, however, I consider that the mapping undertaken, and the reporting are limited in detail. This is acknowledged by HLM – which states that the soil sample holes dug and site observations made were sufficient to give an overview of the LUC units present on the site and that

<sup>4</sup> Regional Policy Statement for Northland Putting Northland - May 2016, page 89 - Highly versatile soils are Land Use Capability Classes 1c1, 2e1, 2w1, 2w2, 2s1, 3e1, 3e5, 3s1,3s2, 3s4 - as mapped in the New Zealand Land Resource Inventory.

further detailed soil mapping would be required to identify soil boundaries and exact areas of each LUC unit.

- 6.13 The lack of assessment detail (in both the mapping and the reporting) creates some uncertainty as to the accuracy of the estimated areas of versatile land and the soil and land limitations of the site, which are referred to and relied upon by Mr Hunt in his statement of evidence.
- The HLM Survey also identifies a "complex" LUC unit (2w2-3w2) that required "more detailed mapping at a finer scale" for precise delineation. This indicates a remaining level of uncertainty regarding the exact extent of versatile land within this specific area. There is similar uncertainty noted by HLM for the (LUC 3s2) golf course area.
- As presented, and accepting the limitations of the assessment detail (which are acknowledged by HLM), I would expect a more detailed soil and LUC assessment for such a substantive proposal, to remove the uncertainty around soil and LUC classification.

# The AgFirst NPS-HPL Report

- 6.1 The AgFirst NPS-HPL Report (which Mr Hunt relies on) uses the HLM Survey as the foundational basis for revising the areas of highly productive land and assessing productive capacity. However, I understand from Mr Hunt's evidence that he has determined the land that meets the NPS-HPL transitional definition of highly productive land using the NZLRI maps.
- The first bullet point in section 4.3 of the AgFirst NPS-HPL Report states that "the LUC assessment has been undertaken in accordance with accepted guidelines (Milne et al., 1995, and Lynn et al., 2009)". However, the HLM Survey did not specifically state this.
- 6.3 As I have referred to previously in my evidence, the HLM Survey stated that more detailed mapping and investigation were necessary for a definitive assessment.

Additionally, no soil mapping or descriptions were provided for the LUC units mapped.

- I have not located a detailed soil and LUC assessment for the KFO Site only the HLM Survey provided with Submission #554. A detailed soil and LUC assessment should include soil and land descriptions for the on-site observations to confirm the LUC map units identified and mapped. As a minimum, the dominant soil type for each LUC unit should be identified and described. Therefore, I do not support Mr Hunt's description of this survey as "HLM soil and LUC assessment" and the stated adherence to Milne et al., 1995, and Lynn et al., 2009. I consider the HLM Survey to only be a 'preliminary' LUC assessment of the KFO Site. Comments in the HLM Survey acknowledge this.
- Report was a multi-step process that combined desktop research with on-site investigation (the HLM Survey). The AgFirst NPS-HPL Report undertook a desktop LUC assessment using regional scale NZLRI information, sourcing soil information from the Northland Regional Council. This was supplemented with contours derived from the LINZ LiDAR database, the HLM Survey (on-site mapped mapping of LUC units), and a rural productivity site visit by AgFirst. Section 4.3 of the AgFirst NPS-HPL Report describes the findings of the combined assessment.
- AgFirst NPS-HPL Report, (in section 4.3), notes that "observations made by AgFirst during the site visit are consistent with the observations made by Ian Hanmore". Section 2.2 of the AgFirst NPS-HPL Report notes that soil auger observations show consistent layers of heavy clay from 25 cm to beyond 80 cm depth. Other than these statements, there is no other on-ground soil information provided.
- 6.7 The soil information provided in the AgFirst NPS-HPL Report is predominantly based on soil information sourced from the Northland Regional Council. No soil information provided is from on-site soil observations and descriptions.

<sup>5</sup> Hunt Evidence at [25] and AgFirst NPS-HPL Report at section 4.3.

<sup>6</sup> HLM Survey, page 1.

- Although it is common practice to use regional LUC units (prescribed in the LUC Handbook<sup>7</sup>), for more detailed (finer scale) LUC mapping, the LUC units identified and mapped need to be supported by on-site observations and descriptions of the soils in each LUC map unit. This is essential as even for the same LUC unit, at a finer scale soil characteristics such as soil drainage and soil depth can vary from the generic soil descriptions provided by regional data. This variability can be site specific.
- Reliance on the generic soil data introduces uncertainty because it fails to capture site-specific soil characteristics like soil depth and drainage, which are critical for confirming soil limitations and productive capacity.
- Based on section 4.3 of the AgFirst NPS-HPL Report (which interpolates the HLM Survey), the KFO Site contains 130.2 hectares of LUC Class 3 land, along with LUC units 4s2 and 6e4, which includes a wetland. Of the Class 3 land, 89.7 hectares (LUC 3s2) are considered highly versatile under the Northland Regional Policy Statement. However, 40.5 hectares of the Class 3 soils (LUC units 3e1, 3w2, and 3w4) are not considered versatile. The HLM Survey also identified 14.4 hectares of a mixed-soil unit (LUC 2w2/3w2) that contains both highly versatile and non-highly versatile soils, noting that more detailed mapping is needed to accurately delineate these areas.

# 7. RURAL PRODUCTIVITY

- 7.1 Mr Hunt explicitly agrees with the HLM Survey's findings on the KFO Site's soil and LUC limitations.<sup>8</sup> This forms the technical basis for his conclusion that drystock grazing is the highest and best productive use for the site.
- 7.2 Mr Hunt highlights the "wet and heavy soils" leading to "moderate to low pasture production" and management challenges, the major limiting factor of wetness causing prolonged soil saturation and restricting crop selection, and the flood risk

<sup>7</sup> Lynn, IH, Manderson, AK, Harmsworth, GR, Eyles, GO, Douglas, GB, Mackay, AD, Newsome PJF. 2009. Land Use Capability Handbook - a New Zealand handbook for the classification of land 3rd Ed. Hamilton, AgResearch; Lincoln, Landcare Research; Lower Hutt, GNS Science 163pp.

<sup>8</sup> Hunt Evidence at [25].

preventing capital investment.<sup>9</sup> These physical constraints, as identified by the LUC units mapped by HLM, underpin Mr Hunt's assessment of the KFO Site's limited productive capacity for intensive land-based primary production.

- 7.3 The KFO Site is primarily used for dairy grazing and beef finishing. <sup>10</sup> Historically, the KFO Site supported dairy farming. While this suggests the land once supported more intensive pastoral use, Mr Hunt notes that the existing dairy sheds and infrastructure are derelict and non-compliant, lacking effluent consents (para 29). <sup>11</sup> Reinstating dairy would necessitate "significant capital expenditure". <sup>12</sup>
- 7.4 Although the specific reason for the cessation of dairy farming is unknown, the current physical limitations of the soils, particularly their wetness, would pose challenges for dairy operations (especially during winter and flood events), on at least part of the KFO Site, without considerable investment in off-paddock infrastructure.<sup>13</sup>
- 7.5 However, similar land in the area, such as the Southern Site addressed by Mr Hunt, is currently used for dairy farming. The key difference is that operational dairy infrastructure exists on that site. 15
- 7.6 This highlights that the current lack of compliant infrastructure is the main reason for dairy land use not being considered for the KFO Site, rather than inherent soil and land limitations.
- Relying on the revised LUC map for the Site provided in Figure 6 of the AgFirst NPS-HPL Report, 16 the KFO Site contains three areas of LUC 3s2 land totalling 89.7 ha. The total area of LUC 3s2 is slightly greater than the 86 ha estimated in the HLM Survey, partially because it includes an area not mapped in the HLM Survey.

9 Hunt Evidence at [31(b)].

<sup>10</sup> Hunt Evidence at [27].

<sup>11</sup> Hunt Evidence at [29].

<sup>12</sup> AgFirst HPS-HPL Report at section 2.2

<sup>13</sup> AgFirst NPS-HPL Report at section 5.3.

<sup>14</sup> AgFirst NPS-HPL Report at section 7.2.1.

<sup>15</sup> AgFirst NPS-HPL Report at section 7.2.2.

<sup>16</sup> Section 4.3.

**7.8 Figure 5** shows the revised LUC map provided in section 4.3 of the AgFirst NPS-HPL Report.

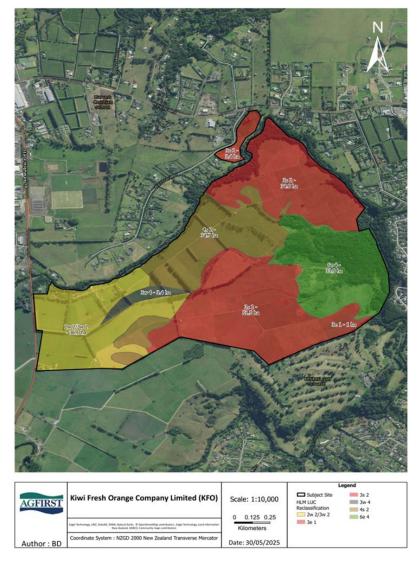


Figure 5: The revised LUC map provided in the AgFirst NPS-HPL Report (reproduced Figure 6, section 4.3).

- 7.9 According to the description for LUC IIIs2 (the roman numeral equivalent of 3s2) in Land Use Capability classification of the Northland Region, the land has moderate limitations for arable use due to the highly variable characteristics of the Ōkaihau gravelly clay 'ironstone' soils. Despite these limitations, LUC 3s2 land is considered potentially suitable for a wide range of crops, including horticulture.
- 7.10 The suitability of this land for horticulture is contingent on specific management practices. To manage the moderate limitations, it is recommended to use contour cultivation and minimum-tillage practices to prevent soil degradation. Due to the

spatially complex nature of the soils, which include a mix of high- and low-fertility areas, and the potential for varying drainage characteristics, site specific application of fertiliser and management of water is critical. Seasonal irrigation may be required in some areas, particularly for horticultural crops, to manage soil moisture levels. Additionally, shelterbelts are recommended to minimise wind erosion and help maintain soil moisture.<sup>17</sup>

7.11 Excluding the isolated 3.4 ha area, land parcels of lesser area with the same LUC unit (3s2) commonly support intensive horticulture elsewhere in the district. Figure
6 shows the mapped distribution of the Ōkaihau gravelly clay soils (symbol OK) cover much of the horticulture land in the Waipapa area.<sup>18</sup>



Figure 6: Mapped distribution of the  $\bar{O}$ kaihau gravelly clay soils (brown shading and symbol 'OK') in the Waipapa area (the location of the KFO Site is indicated by the yellow star).

<sup>17</sup> Harmsworth GR (1996). Land Use Capability classification of the Northland region. A report to accompany the second edition New Zealand Land Resource Inventory. Landcare Research Science Series 9. Lincoln, Manaaki Whenua Press.

<sup>18</sup> https://nrcgis.maps.arcgis.com/apps/webappviewer/index.html?id=fd6bac88893049e1beae97c3467408a9

7.12 Mr Hunt acknowledges that LUC 3s2 land is versatile.<sup>19</sup> For the reasons above, I consider that the larger areas of LUC 3s2 land on the KFO Site have at least some potential for horticulture (from a soil and LUC perspective).

## 8. COMPARISON WITH ALTERNATIVE SITES

- 8.1 Mr Hunt undertakes a comparative analysis of other options for rezoning rural land to residential in the Kerikeri and Waipapa vicinity.<sup>20</sup> I understand that this assessment is for the purposes of clause 3.6(4)(b) of the NPS-HPL which requires there are no other reasonably practicable and feasible options for providing the required development capacity.
- 8.2 Mr Hunt concludes that rezoning of the KFO Site meets the requirements of clause 3.6(4)(b) insofar as there are no other reasonably practicable and feasible options which are better suited in terms of impacts on productive land for providing additional urban development capacity in Kerikeri and Waipapa. This is based on his evaluation of three alternative areas including the expansion of the adjoining land to the south of the Site (Southern Site), the expansion of the Waipapa township to the west of the Site (Western Site), and a site on the Southeastern fringe of Kerikeri (Southeastern Site).<sup>21</sup>
- 8.3 For comparison, based on the NZLRI-LUC units and their respective areas (as provided in Appendix A of Mr Hunt's evidence and my assessment of the NZLRI LUC data), the highly productive land status for the KFO Site and the alternative sites is summarised in Figure 7.

Alternative site (Figure in Appendix A – for reference)	Site Area (ha)	Qualifying LUC units (area in ha)	Area of highly productive land (ha)	Highly productive land as a percent of site area (%)
KFO Site (Figure 5)	199.2	3s2 (87.0), 3w2 (76.1)	163.1	81.9
Western (Figure 15)	174.3	3w2 (148.4)	148.4	85.1
Southeastern (Figure 17)	46.3	2s1 (0.34)	0.34	0.7

<sup>19</sup> Hunt Evidence at [24(a)].

<sup>20</sup> Hunt Evidence at [41]-[49].

<sup>21</sup> Hunt Evidence at [49].

1 177.9	v2 (42.6), 2 (53.7) 96.3	78.4
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Figure 7: Highly productive land status for the KFO Site and the alternative sites (Western, Southeastern and Southern sites).

- 8.4 Based on the data in Figure 7, and based on hectares (ha) alone, all alternative sites have less highly productive land than the KFO Site. Based on percentage area alone, the Western site has a greater proportion of highly productive land than the KFO Site, the Southern Site slightly less than the KFO Site, and for the Southeastern site less than 1% is highly productive land.
- 8.5 Importantly, Mr Hunt's comparative analysis does not include the option of providing for development capacity through intensification. This is addressed in the evidence of Mr McIlrath and Mr Lindenberg, and the s 42A report of Mr Wyeth. Mr Hunt also does not assess the option of urban expansion to the north of Waipapa, and the South of Kerikeri as set out in the Spatial Plan.
- 8.6 In my evidence, I do not comment specifically on whether clause 3.6(4)(b) of the NPS-HPL is satisfied by the KFO proposal. This is a planning matter for Mr Wyeth. While I have commented on the sites identified by Mr Hunt for completeness, my evidence should not be taken as acceptance that any of those sites should be considered for additional development capacity.

## Mr Hunt's methodology

- 8.7 A key inequity in the AgFirst NPS-HPL Report's comparative analysis of the KFO Site and the alternative sites is the absence of equally detailed, site-specific soil and LUC assessments for the alternative sites. While the productive capacity of the KFO Site was assessed using the more detailed, site-specific LUC units of the HLM survey, the alternative sites are evaluated using broader NZLRI data and general desktop observations. This lack of comparable data makes it difficult to make accurate comparisons from a soil and LUC perspective.
- **8.8** The comparative analysis of the KFO Site and alternative urban development options using the more detailed HLM Survey LUC map information for the KFO Site

only, and broader scale NZLRI data and general desktop observations for the alternative urban development options, creates an imbalanced comparison.

8.9 An overlay of the unproductive (non-productive) areas is presented in AgFirst NPS-HPL Report, Figures 8 and 9, for the KFO Site and the data is summarised Table 4 (reproduced in **Figure 8** for reference). Based on the data presented, 53.0 ha of the KFO Site has been remapped as non-productive, of which 15.0 ha (on the LUC class 3 land) is highly productive land.

LUC Unit	<b>A</b>	Non-Productive	Productive areas	
	Area		HPL	Non-HPL
3s2	89.7	13.7	76	-
3w2 & 3e 1	40.8	1.3	39.5	-
4s2 & 6e 4	68.6	37.9	-	30.7
Total	199.2	53.0	115.5	30.7

<sup>\*</sup> Note the areas vary slightly from the survey areas due to measurement methods

Figure 8: Areas available for productive use across the KFO Site (ha).

8.10 I agree with the removal of non-productive areas and the use of the mapped LUC units provided by the HLM Survey for an accurate assessment of productive capacity. However, there has been no similar removal of non-productive areas for the alternative sites, adding to the lack of equitable comparison between the KFO Site and the alternative sites.

# Overview of Mr Hunt's alternative sites

# Western Site

that current land use is drystock grazing and dairy support block with some annual maize crops. A large-scale dairy farm with upgraded infrastructure is on the western boundary of this site. He also identifies the land's potential use as "drystock and dairy support land," and mentions that it could "facilitate growth for both of these industries" (para 46). This suggests that the land is perceived as having value and potential for dairy-related activities and possibly horticulture. Although the Western Site has no dairy infrastructure, I presume the assumption is that it could be integrated into the adjoining dairy farm and utilise that existing infrastructure.

# Southeastern Site

- 8.12 The Southeastern Site is distinct primarily due to its soil, land, and surrounding land uses. Based on the NZLRI information, the site's soil is predominantly derived from greywacke rock, which contrasts with the volcanic and alluvial soils of the KFO Site and Southern Site. Its LUC class is primarily Class 4, with a small areas of classes 2 and 6. While Mr Hunt believes its highest and best use is drystock farming, he also notes its proximity to "high value horticulture" and suggests that the flat western areas could "offer an opportunity for intensive horticulture".<sup>22</sup>
- 8.13 The AgFirst NPS-HPL Report noted that S-Map soil map information was not available for the Northland region.<sup>23</sup> Therefore, soil information for the analysis was sourced from the Northland Regional Council. This is not entirely correct. S-Map soil map information has been available for parts of the Northland region since the last update in August 2024.<sup>24</sup>
- 8.14 S-Map soil map information is not available for the KFO Site and the Western and Southern alternative sites but is available for the Southeastern site and the area surrounding this site (Figure 9).

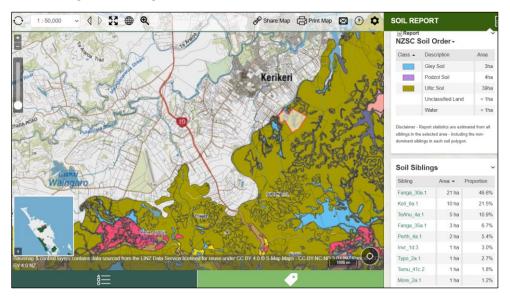


Figure 9: S-Map Online screenshot showing the soil map information (soil classification) for the Southeastern site and surrounding area.

<sup>22</sup> AgFirst NPS-HPL Report at section 7.4.2.

<sup>23</sup> AgFirst NPS-HPL Report at section 4.0.

<sup>24</sup> https://lris.scinfo.org.nz/layer/119602-s-map-a-soil-spatial-information-system-for-new-zealand-current/

- 8.15 The soil map information indicates Ultic soils (green colour) dominate the Southeastern site, as well as the land surrounding the site. This soil map information is considered spatially and contextually more accurate than soil map information provided by the NZLRI. Both sources of information map the Southeastern Site and the surrounding area as Ultic soils, which provides increased confirmation of their presence on the site and the surrounding area.
- 8.16 In contrast to the Oxidic soils (volcanic soils) which are considered versatile and suitable for horticulture on flat to rolling slopes, Ultic soils on the same slopes have moderate to severe limitations that make them unsuitable for horticulture. S-Map maps the soils as Ultic soils for most of the site. Therefore, I do not agree that this site has horticulture potential and consider drystock farming more likely based on the physical capabilities of the soil.

## Southern Site

8.17 Mr Hunt states that the soils and land for the Southern Site are similar to those of the KFO Site and that the site is currently used as a dairy farm.<sup>25</sup> The LUC classification shows LUC 3w 2 and 3s 2 across the majority of the Site, with 4e 2 on the strongly sloping land towards Puketotara Stream on the eastern boundary. Mr Hunt also notes that its current use as a dairy farm is "likely the highest and best use of the land" because the necessary infrastructure is already in place.<sup>26</sup>

# Comparison to the KFO Site

- 8.18 Mr Hunt's assessment purports to show that the KFO site has a relatively lower productive capacity than the alternatives, making it more suitable for urban rezoning.
- 8.19 If the NZLRI and S-Map soil map information are accepted as being correct, it is difficult to conclude that the KFO Site has a relatively lower productive capacity than the Southwestern Site. The Southwestern Site includes Ultic soils which are suited to drystock grazing (and not horticulture), while the KFO site is currently

<sup>25</sup> Hunt Evidence at [44].

<sup>26</sup> Hunt Evidence at [45].

used for drystock grazing but I have concluded above that it holds at least some potential for horticulture.

8.20 However, I should point out that does not necessarily mean that the Southwestern Site is suitable for urbanisation. That requires a complex planning evaluation which involves much more than soil and productive capacity.

8.21 As noted above, Mr Hunt's comparative analysis does not include the option of primarily providing development capacity through intensification, which I understand to be the PDP-R option. This would avoid the loss of productive capacity altogether. Intensification has not been considered and there may well be other sites that have not been omitted also.

## 9. EFFECT ON THE DISTRICT'S OVERALL PRODUCTIVE CAPACITY

9.1 The proposed urbanisation seeks to rezone 199.2 ha of land, of which 163.1 ha is currently defined (using the NZLRI) as highly productive land under the NPS-HPL transitional provisions.<sup>27</sup> Mr Hunt argues that the conversion of this KFO Site from land-based primary production to urban use would have "minimal effects" on the district's overall productive capacity, primarily due to the site's low productivity for agriculture.<sup>28</sup>

- 9.2 The AgFirst NPS-HPL Report, states that "The total combined area of HPL within a property, according to the NZLRI, is 163.1 ha, which is 0.34% of the available HPL within the district. This area is not considered a significant proportion of lost HPL within the district, particularly as it does not meet the economic viability test for rural production."<sup>29</sup>
- 9.3 While the KFO site arguably includes a relatively small proportion of the regional resource of highly productive soils, there are cumulative effects from the irreversible loss of productive soils to urbanisation. These should also be considered.

<sup>27</sup> Hunt Evidence at [21].

<sup>28</sup> Hunt Evidence at [40] and [52].

<sup>29</sup> AgFirst NPS-HPL Report, section 7.1.

## 10. CONCLUSION

- 10.1 My evidence, prepared in relation to rural productivity, supports the evaluation report under s 42A of the RMA. My conclusions focus on soil and LUC matters in relation to the NPS-HPL.
- The HLM Survey, while a useful preliminary on-ground assessment, is insufficient as a definitive basis for reclassifying land capability or challenging the broader NZLRI classification due to its inherent limitations and lack of methodological transparency. Mr Hunt's description of this survey as a "detailed soil and LUC assessment" is not supported by the report itself, which called for further detailed mapping to delineate more accurate LUC unit boundaries.
- 10.3 The KFO Site, particularly its LUC 3s2 land, holds at least some potential for horticulture. Based on the AgFirst NPS-HPL Report, the site contains an estimated 89.7 hectares of versatile LUC 3s2 land. This land is considered potentially suitable for a range of crops, including horticulture, with appropriate management practices.
- 10.4 Mr Hunt's comparative analysis of the alternative sites is flawed due to an inconsistency in data granularity and identification of non-productive areas.
- The inferred horticultural potential for the Southeastern Site in the AgFirst NPS-HPL Report is directly challenged by more recent S-Map data, which was not included in the report's analysis. This data indicates that Ultic soils, which are unsuitable for horticulture, and dominate the site and the surrounding area. It is therefore difficult to conclude that the KFO Site has a relatively lower productive capacity than the Southwestern Site.
- More importantly, Mr Hunt's comparative analysis does not include the option of primarily providing for development capacity through intensification, which I understand to be the PDP-R option. This would avoid the loss of productive capacity altogether.

10.7 While the KFO site arguably includes a relatively small proportion of the regional resource of highly productive soils, there are cumulative effects from the irreversible loss of productive soils to urbanisation. These should also be considered.

Reece Blackburn Hill 10 September 2025