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NPS-HPL Assessment

Southern Links 1 - Residential

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Document Quality Assurance

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I am Jeremy Hunt, an Agribusiness Consultant with AgFirst. I hold a Bachelor of Science and have 8 years of professional experience in agricultural productivity and resource assessments. My qualifications and relevant experience are set out in further detail in my curriculum vitae - Appendix A to this report. While this report has not been prepared for an Environment Court proceeding, I confirm that I have read and understood the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023, and I agree to comply with it. I acknowledge that, as an expert, I have an overriding duty to assist the decision maker impartially on matters within my area of expertise. In preparing this report, I have exercised my independent professional judgement, and the opinions I express are my own. I understand that my duty as an expert is not to advocate for the interests of the applicant or any other party. I confirm that the matters addressed in this report are within my area of expertise, except where I expressly state that I am relying on information or opinions provided by another person. I have not omitted to consider any material facts known to me that might alter or detract from the opinions expressed in this report.		

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1 Executive Summary

This report assesses the proposed 46 ha Southern Links 1 - Residential development against the requirements of Clause 3.10 of the National Policy Statement for Highly Productive Land (NPS-HPL). It evaluates whether the proposed urban development site is economically viable and sustainable in land-based agriculture for the long term and therefore should be retained as part of the district's rural resources. The assessment integrates detailed site-specific soil mapping, land use capability (LUC) analysis, and economic modelling of a range of productive land use options.

Site-Specific Soil Mapping Findings

Detailed soil investigations undertaken by Landsystems (Dr Tanya O'Neill and Dr Reece Hill) significantly refine and improve upon the regional-scale NZLRI mapping. The NZLRI mapping classified approximately 97% of the site as LUC Class 2 soils and therefore Highly Productive Land (HPL) as defined by the NPS-HPL. However, detailed field investigations revealed that the site is considerably more heterogeneous than indicated by regional mapping and contains a much wider range of soil types, drainage conditions and productive limitations.

The site-specific assessment found:

- 75.5% of the site comprises LUC Class 2 land;
- 5.9% comprises LUC Class 3 land;
- 8.9% comprises LUC Class 4 land;
- 8.7% is non-productive land, including existing dwellings, races, drains, infrastructure and modified areas.

Importantly, the detailed survey demonstrates that only 13.6 ha (29.6%) of the Residential Site qualifies as High Class Soil under the Waipā District Plan definition. While large portions of the site retain a LUC Class 2 classification, much of this area comprises drained organic Motumaoho peaty soils that do not meet the District Plan definition of High-Class Soil.

Accordingly, the detailed assessment demonstrates that the extent of genuinely versatile, high-quality soils on the site is substantially less than suggested by regional NZLRI mapping. Rather than a cohesive block of elite productive land, the site contains a fragmented mixture of soil types with wetness, drainage and management limitations.

Productive Capacity and Long-Term Constraints

Productive capacity of the land is constrained by a combination of physical, operational and locational factors. These include:

- The Hamilton Southern Links designation, which removes essential dairy infrastructure and physically constrains the landholding.
- Waikato Region Proposed Plan Change 1 (PC1) regulations restrict the conversion of the drystock farm into dairy, thus resulting in an undersized and non-viable dairy farm – lacking infrastructure.
- Urban encroachment and reverse sensitivity effects from neighbouring residential development
- Elevated land values and holding costs associated with proximity to Hamilton.
- Internal fragmentation from streams, drains and non-productive areas
- Wetness limitations for intensive cropping
- Reliance on artificial drainage to maintain productivity
- Ongoing peat subsidence risks is cultivated continuously

Collectively, these constraints substantially reduce the versatility of the Residential Site and limit the range of sustainable land-based primary production activities that can be undertaken. The assessment concludes that pastoral farming is the highest and best reasonably practicable agricultural land use. More intensive options such as horticulture, commercial vegetable production and permanent cropping are either physically unsuitable for the land or economically unrealistic.

Economic Viability Assessment

A comprehensive economic assessment was undertaken across four potential land use scenarios:

- Dairy farming;
- Dairy grazing;
- Maize silage production;
- Mixed maize and dairy grazing.

The definition of economic viability used was published by Journeaux in 2025 and requires an economic unit to provide sufficient revenue to cover operating expenses, depreciation, the living requirements of a family, a reasonable interest burden and funds reinvestment in the business. Modelling shows that all options generate relatively low returns when assessed against the capital investment required, infrastructure replacement costs and prevailing land values. Key findings include:

- All options covered their operating expenditure.
- Return on capital invested ranges from only 0.39% to 2.20% under the land use options investigated. This is substantially below the average return available from low-risk 10-year Government bonds which average 4.07% over the last five years.

- Only the maize and mixed grazing/maize system were able to cover the interest on funds required to redevelop infrastructure lost as a result of the Hamilton Southern Links designation. However, the long-term sustainability of a maize cropping system on peat soils is questionable.
- Once living costs for a family were deducted the net cash position for all options was negative. This ranged from - \$47,000 for maize silage to -\$158,000 for dairy grazing. No agricultural land use option could provide for a family's living needs in addition to operating costs and redevelopment costs. Therefore, no funds were available for reinvestment in the business.

The analysis demonstrates that none of the reasonably practicable land use options can simultaneously cover operating expenses, service redevelopment debt, provide adequate returns to management to support the living requirements of a family, and generate sufficient surplus for reinvestment and business growth.

Accordingly, the Residential Site cannot be considered economically viable for long-term land-based primary production under accepted farm viability principles.

Assessment of Alternative Options under Clause 3.10

Clause 3.10 requires consideration of reasonably practicable alternatives that could overcome constraints while retaining productive capacity.

The assessment considered:

- Alternative farming systems, including commercial vegetable production and horticulture. The future viability for dairy farming is also non-viable due to the small size and lack of infrastructure.
- Improved drainage and land management.
- Alternative production strategies.
- Boundary adjustments and amalgamation.
- Lease arrangements to maintain productive use.

None of these options were found capable of overcoming the Residential Site's permanent or long-term constraints. Commercial vegetable production and horticulture are constrained by soil drainage, peat characteristics, reverse sensitivity effects and significant establishment costs. Improved drainage would require substantial investment with uncertain effectiveness. Amalgamation opportunities are limited and would not resolve the fundamental disconnect between productive earnings and inflated peri-urban land values that result in low commercial returns. Lease arrangements similarly fail because underlying productive returns are insufficient to provide returns to both landowner and operator.

The assessment therefore concludes that there are no reasonably practicable options available to retain productive capacity while achieving economic viability, satisfying Clause 3.10(2) of the NPS-HPL.

NPS-HPL Clause 3.10 Conclusions

AgFirst concludes that the Residential component of the project satisfies the requirements of Clause 3.10 because:

- The Residential Site is subject to permanent and long-term constraints that prevent economically viable primary production for at least the next 30 years.
- Detailed soil mapping demonstrates that only a relatively small proportion of the site comprises High Class Soil under the Waipā District Plan definition.
- The site is already heavily constrained by fragmentation, urban encroachment and infrastructure designations.
- The loss of productive capacity represents an insignificant proportion of the district-wide highly productive land resource.
- Reverse sensitivity effects of urban development on surrounding rural land are limited because of separation by the Hamilton Southern Links.
- The development site is already fragmented and causes no fragmentation of large cohesive productive areas, which is the aim of the NPS-HPL.
- There are no reasonably practicable options available to overcome the identified constraints.
- The environmental, social and economic benefits of urban development substantially outweigh the productive capacity lost.

Overall, while the Residential Site contains some highly productive soils, it does not function as a coherent, economically viable or versatile productive land resource. The detailed soil mapping materially reduces the extent of land that can be considered high class, while the economic analysis confirms that ongoing agricultural use is not sustainable in commercial terms. Consequently, urban development represents the most appropriate and efficient use of the land and is consistent with the intent and exemption framework of Clause 3.10 of the NPS-HPL.

2 Background

This report supports approval for a Substantive Application under the Fast-track Approvals Act 2024 for a comprehensively master planned and staged residential development.

The Southern Links 1 (SL1) Residential (the Residential Site) is the residential component of the wider Southern Links 1 listed project, and part of the wider SL1 Growth Cell, a circa 440 ha contiguous land area that stretches along the south-western edge of Hamilton and is bounded to the west by the Hamilton Southern Links designation – a road of national significance- as illustrated in Figure 1.

The Residential Site is on the outskirts of Hamilton City adjacent to Saxbys Road in Deanwell. The Residential Site comprises approximately 46 ha and is made up of three titles in single ownership and currently used for rural farming activities as part of a dairy farm. The Hamilton Southern links designation passes over the current site of the farm dairy and ancillary buildings resulting in the Residential Site effectively being a bare block.

AgFirst Waikato (2016) Ltd (AgFirst) has been engaged to provide an assessment that considers the proposed SL1 Residential urban development against the National Policy Statement – Highly Productive Land (NPS-HPL). This relates to an assessment of the Residential Site against the circumstances in which non-productive land activities may be undertaken, as set out in Section 3.10 of the NPS-HPL.

AgFirst is a suitably qualified agribusiness consultancy with proven experience in completing assessments relating to productive capacity, primary production and soil versatility. Our assessment should be read in conjunction with the other assessments which accompany the Residential Site's consent application, including the planning and economic analyses.

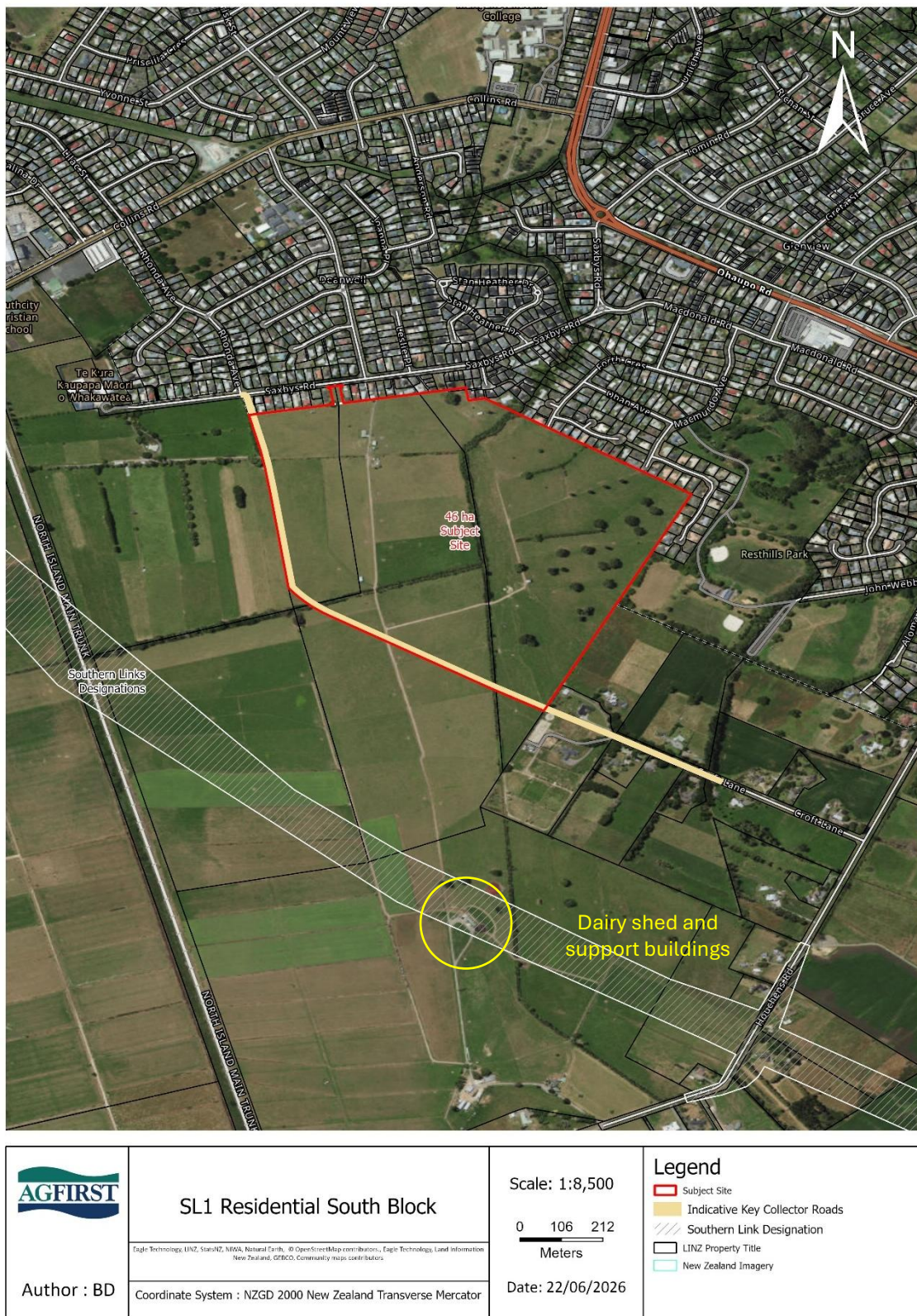


Figure 1. Proposed Residential Site

3 Property Summary and Existing Land Use

The Residential Site has a total area of approximately 46.0 ha and is zoned Rural within the Waipā District Plan and therefore subject to assessment under the NPS-HPL.

The site is identified for future urban development¹ and is a priority site for development in the North Waipā - South Hamilton development area of Waikato's published future development strategy, the Waikato Future Proof Strategy (2024-2054).

The Site and its boundaries are clearly identified in Figure 1.

The Site is located in the Waipā District and is zoned rural. It is annexed by the Southern Links Motorway designation to the west and adjoining urban area, zoned as General Residential and Sports and Recreation Open Space Zone in the Hamilton City Operative District Plan (2026)², while land to the south and west is zoned as Rural in the Waipā District Plan. The Residential Site and zoning overlay is presented in Figure 2.

The western and south-western boundaries of the Residential Site are formed by a proposed collector road in the SL1 Growth Cell, with town and lifestyle blocks on the other boundaries. The Site is bisected by the Mangakotukutuku Stream and related drains. The length of the stream and drains is approximately 1,000 m.

The area and properties subject to this assessment are legally described in Table 1 and presented in Figure 3.

Table 1. Description of Parcels within the Development Site and zoning

Zoning	Legal Description	Valuation No.	Title area (ha)	Title area in Development site (ha)
Rural	Part Lot 2 DP 25668	045581/052.02	33.3	17.3
Rural	Lot 2 DP 589463	04581/051.05	22.2	21.2
Rural	Lot 3 DP 394366 and Lot 1 DP South Auckland 51518	04581/052.01	7.6	7.5
TOTAL			63.1 ha	46 ha

The Residential Site is currently part of a larger dairy farm, but due to the Hamilton Southern Links designation will be left without the infrastructure to carry on dairy farming. Current land use of the Residential Site and the surrounding area is illustrated in Figure 4.

¹ Identified for future urban development means: (a) identified in a published Future Development Strategy as land suitable for commencing urban development over the next 10 years; or (b) identified: (i) in a strategic planning document as an area suitable for commencing urban development over the next 10 years; and (ii) at a level of detail that makes the boundaries of the area identifiable in practice.)

² <https://hamilton.isoplan.co.nz/eplan/property/1806556/1792480/5825267/5806724/0/103>



Figure 2: Residential Site and zoning

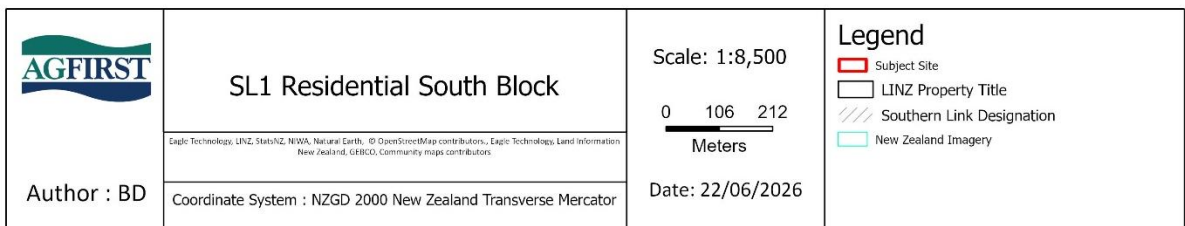
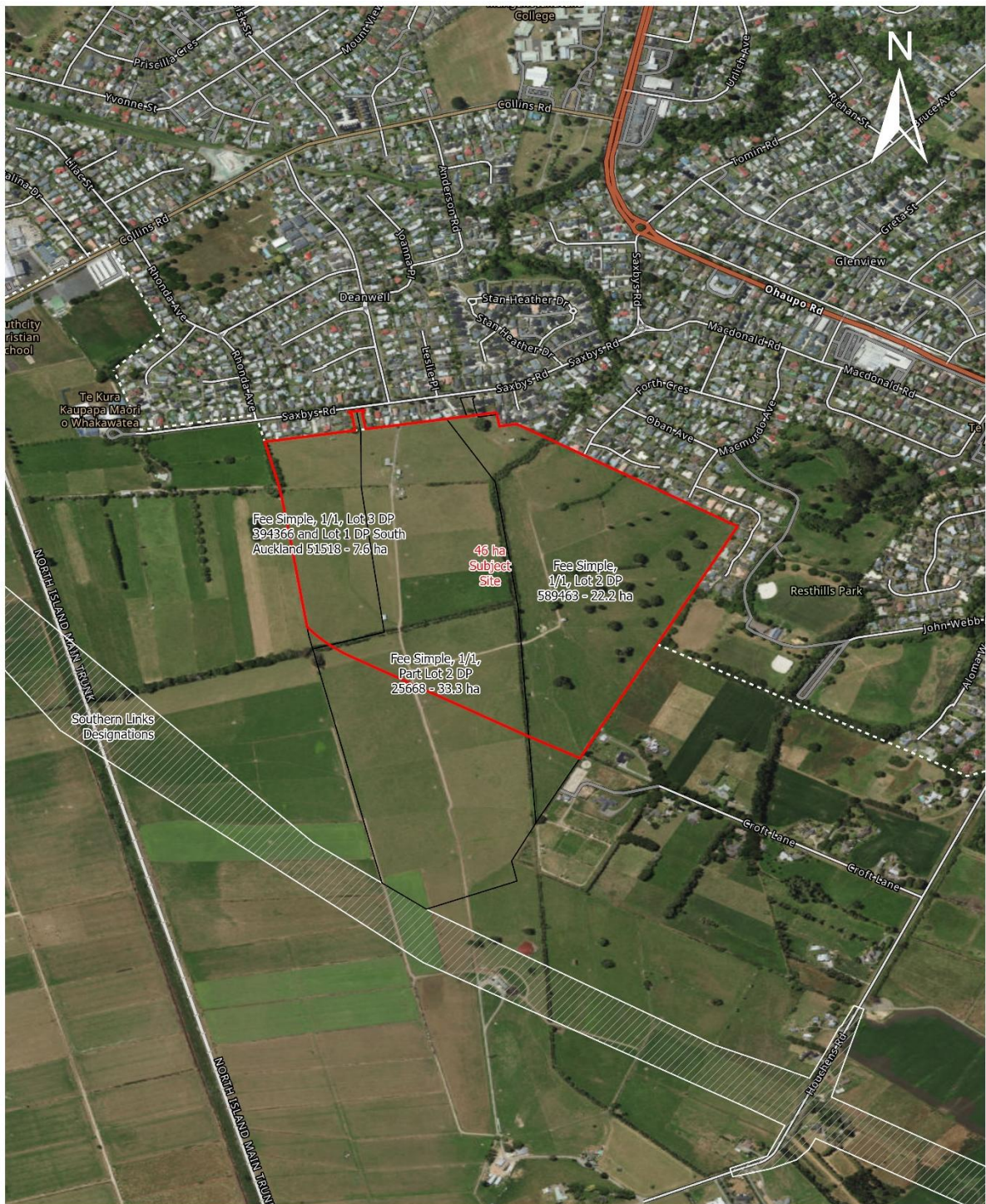


Figure 3: Land titles in the Residential Site

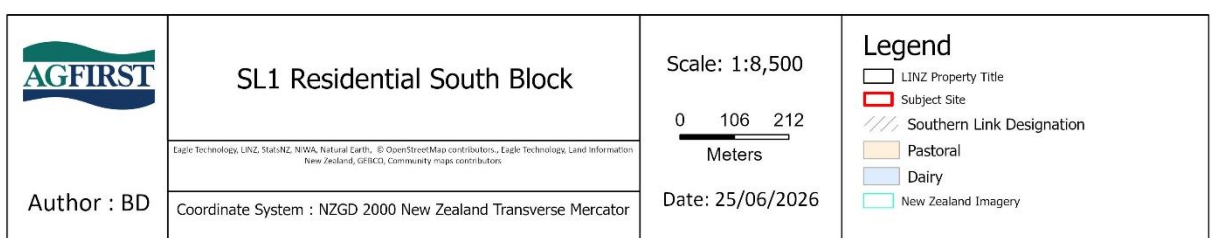


Figure 4: Current land use of the Residential Site and surrounding areas

4 National Policy Statement

4.1 Regulatory Framework for Highly Productive Land

The NPS-HPL came into effect on 17 October 2022 and establishes a nationally consistent framework for identifying and managing highly productive land (HPL). This policy is intended to protect HPL for use in land-based primary production, both now and for future generations. However, there are pathways for exemptions, including Clause 3.10, as outlined in this report.

The interim definition of HPL in Clause 3.5(7) was amended in December 2025, with the amendments coming into force on 15 January 2026. The amendments retained LUC 1 and 2 land within the interim HPL definition but introduced additional exclusions for certain LUC 3 land. In particular, LUC 3 land is no longer treated as HPL where a resource consent application for subdivision, use or development (other than rural lifestyle development) has been lodged on or after 17 October 2022. However, this amendment only applies to LUC 3 land identified through the interim New Zealand Land Resource Inventory (NZLRI) mapping provisions of Clause 3.5(7) and does not affect the HPL status of the Residential Site, as discussed below.

Clause 3.5(7) states: *(7) Until a regional policy statement containing maps of highly productive land in the region is operative, each relevant territorial authority and consent authority must apply this National Policy Statement as if references to highly productive land were references to land that:*

(a) Is:

- (i) zoned general rural or rural production at the commencement date; and*
- (ii) LUC 1, 2, or 3 land, but*

(b) Is not:

- (i) identified for future urban development at the commencement date; or*
- (ii) subject to a council initiated, or an adopted, notified plan change to rezone it from general rural or rural production to urban or rural lifestyle at the commencement date; or*
- (iii) subject to a resource consent application for subdivision, use or development on LUC 3 land for any activity other than rural lifestyle, where that consent has been lodged at or after the commencement date.*

LUC 1, 2, or 3 land is defined as LUC Classification 1, 2, or 3, as mapped by the NZLRI or by any more detailed mapping that uses the LUC classification.

Land-based primary production means *production from agricultural, pastoral, horticultural or forestry activities that are reliant on the soil of the land.*

Productive capacity, in relation to land, means *the ability of the land to support land-based primary production over the long-term and an assessment of:*

- (a) Physical characteristics (such as soil type, properties, and versatility); and*
- (b) Legal constraints (such as consent notices, local authority covenants, and easements); and*
- (c) The size and shape of existing and proposed land parcels.*

In summary, the NPS-HPL closely aligns with the Waipā Operative District Plan (ODP), where it identifies LUC Classes 1, 2, and 3 as being the most versatile land, with the fewest limitations on its use, and therefore HPL.

However, the ODP has a narrower definition of high-class soils, limiting them to:

- Those soils of Land Use Capability classes 1 and 2 (excluding Peat Soils), and;
- soils of Land Use Capability classes 3e1 and 3e5 classified as Allophanic Soils using the New Zealand Soil Classification.

Clause 3.7 of the NPS-HPL states “*Territorial authorities must avoid rezoning of highly productive land as rural lifestyle, except as provided in clause 3.10*”. The applicant is not seeking rural lifestyle rezoning, and therefore, pathway 3.7 is not applicable.

Clause 3.8 of the NPS-HPL provides a pathway for subdivision where the overall productive capacity of HPL is retained over the long term. As the proposed urban development would permanently remove the rural productive potential of the Residential Site, the project does not rely on Clause 3.8.

Clause 3.9 of the NPS-HPL states, “*Territorial authorities must avoid the inappropriate use of highly productive land that is not land-based primary production.*” The proposed development does not meet any of the exceptions specified in Clause 3.9, and therefore, Clause 3.9 has not been used to support the proposed urban use of the Residential Site.

Clause 3.10 sets out the exemptions for subdivision, use or development of HPL subject to permanent or long-term constraints to be used for non-productive purposes. The criteria that must be met to enable this exemption are listed in the following section.

4.2 NPS-HPL Clause 3.10 - Exemption for HPL subject to permanent or long-term constraints

For reference the NPS-HPL allows for exemptions under the following clause.

(1) Territorial authorities may only allow highly productive land to be subdivided, used, or developed for activities not otherwise enabled under Clauses 3.7, 3.8, or 3.9 if satisfied that:

- (a) There are permanent or long-term constraints on the land that mean the use of the highly productive land for land-based primary production is not able to be economically viable for at least 30 years; and*
- (b) The subdivision, use, or development:*
 - (i) Avoids any significant loss (either individually or cumulatively) of productive capacity of highly productive land in the district; and*
 - (ii) Avoids the fragmentation of large and geographically cohesive areas of highly productive land; and*
 - (iii) Avoids if possible, or otherwise mitigates, any potential reverse sensitivity effects on surrounding land-based primary production from the subdivision, use, or development; and*
- (c) The environmental, social, cultural and economic benefits of the subdivision, use, or development outweigh the long-term environmental, social, cultural and economic costs associated with the loss of highly productive land for land-based primary production, taking into account both tangible and intangible values.*

(2) In order to satisfy a territorial authority as required by Subclause (1)(a), an applicant must demonstrate that the permanent or long-term constraints on economic viability cannot be addressed through any reasonably practicable options that would retain the productive capacity of the highly productive land, including evaluating options such as (without limitation):

- (a) Alternate forms of land-based primary production*
- (b) Improved land-management strategies*
- (c) Alternative production strategies*
- (d) Water efficiency or storage methods*
- (e) Reallocation or transfer of water and nutrient allocations*
- (f) Boundary adjustments (including amalgamations)*
- (g) Lease arrangements*

(3) Any evaluation under Subclause (2) of reasonably practicable options:

- (a) Must not take into account the potential economic benefit of using highly productive land for purposes other than land-based primary production; and
- (b) Must consider the impact that the loss of the highly productive land would have on the land holding in which the highly productive land occurs; and
- (c) Must consider the future productive potential of land-based primary production on the highly productive land, not limited by its past or present uses.

(4) The size of a land holding in which the highly productive land occurs is not of itself a determinant of a permanent or long-term constraint.

(5) In this clause:

Landholding has the meaning in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020.

Long-term constraint means a constraint that is likely to last for at least 30 years.

The criteria of **Clause 3.10** is assessed in detail in the following sections of this assessment.

5 Assessment of Land Use Capability

5.1 Role and Limitations of Land Use Capability Mapping

The NZLRI provides a nationally consistent, regional-scale assessment of land capability. LUC mapping is primarily intended to inform strategic and regional planning and is typically undertaken at a scale not suited to site-specific assessment. While LUC classification identifies potential versatility of soils, it does not account for:

- site-specific constraints such as internal fragmentation, existing buildings, or modified soils;
- the functional availability of land for land-based primary production;
- economic viability or infrastructure requirements; or
- surrounding land use and opportunities for integration or expansion.

Accordingly, while LUC 3 mapping is relevant, it is not determinative of whether land functions as highly productive land in practice or whether it should be subject to the full application of NPS-HPL provisions.

5.2 NZLRI Land Use Capability Classification

The LUC classification system has been used in New Zealand to help achieve sustainable land development and management on farms. The purpose of the LUC classification is to assess the suitability of the land for primary production. Determining the presence of HPL as defined under the LUC classification requires consideration of a range of characteristics. The LUC classification categorises land areas or polygons into classes, subclasses and units according to the land's capability to sustain productive use. The LUC is based on an assessment of the physical factors (rock type, soil, slope, present type and severity of erosion, and vegetation), climate, the effects of past land use, and the potential for erosion. This is summarised in Figure 5 below.

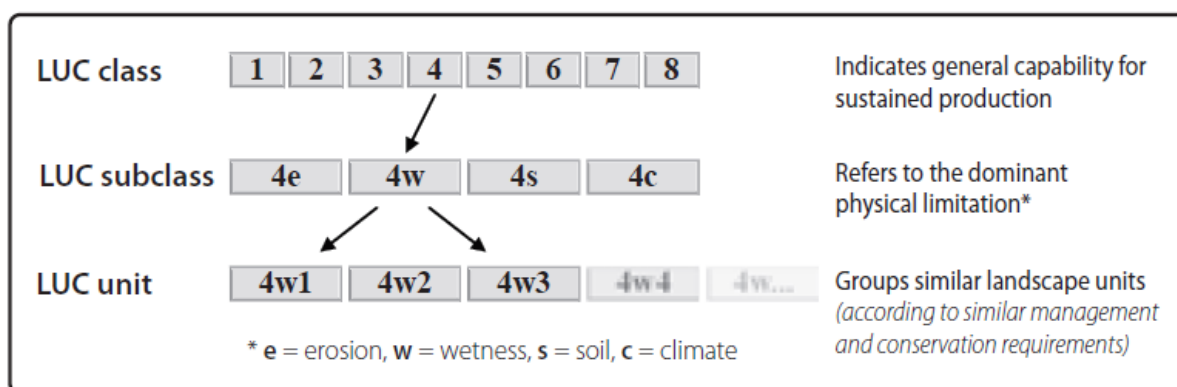


Figure 5. Components of the Land Use Capability Classification³

³ Lynn, I.H, Manderson, A.K, Page, M.J, Harmsworth, G.R, Eyles, G.O, Douglas, G.B, Mackay, A.D, Newsome, P.J.F. (2009). Land Use Capability Survey Handbook – a New Zealand handbook for the classification of land 3rd ed. Hamilton, AgResearch; Lincoln, Landcare Research; Lower Hutt, New Zealand. GNS Science.

The NZLRI maps are designed for use at a 1:63,000. This means that 1 cm² of published map covers 36.69 ha. Following the observation guidelines, this equates to, at most, one observation per 36.69 ha and at least one observation per 146.76 ha. Therefore, it should only be treated as an indicator for LUC at the site. The observation guidelines are in reference to one observation site per 1 cm² of published map, with a minimum acceptable limit of one site per 4 cm² of published map according to New Zealand soil mapping protocols and guidelines (Grealish, 2019).

The distribution of the NZLRI LUC soil across the Residential Site are summarised in Table 2 and illustrated in Figure 5.

Table 2. Description of NZLRI soil and LUC Classification within the Residential Site

Soil type (NZSC Soil Order)	Parent material	Soil drainage	Slope class	LUC unit (limitation)	Area of Site ha (%)
Kaipaki loamy peat or peaty loam (Organic Soil)	Peat & rhyolitic alluvium	Very poorly drained	A	2w2 (wetness)	34 (74)
Rukuhia peat (Organic Soil)	Peat	Very poorly drained	A	2s5 (soil)	10.3 (23)
Town	-	-	-	-	1.6 (3)
TOTAL					46

LUC classified soils on the Residential Site constitute 44.4 ha and 97% of the total area. The LUC units present are captured under the interim definition as HPL. However, these soils do not meet the definition of high-class soils under the ODP which excludes peat soils.

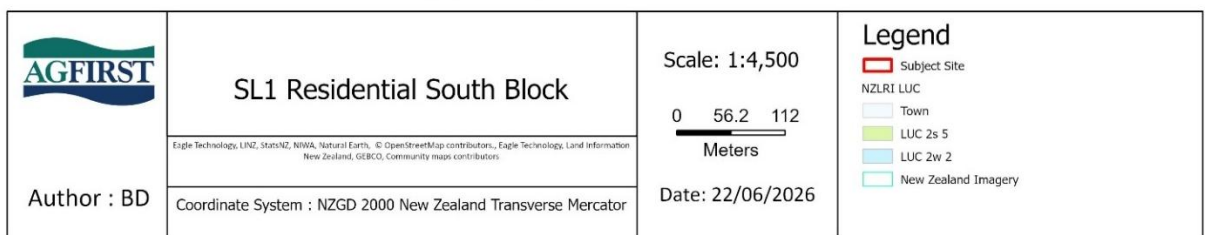


Figure 6. NZLRI Land Use Capability Classification Map

5.3 Manaaki Whenua Soil Maps

The soils have been reviewed using the Manaaki Whenua – Landcare Research S-Map and Land Information New Zealand (LINZ) database. While not sufficient to reclassify the soils as per the NPS-HPL, these maps, also designed for use at a 1:50,000 scale, have a finer resolution achieved by incorporating the best available spatial information from soil surveys or new mapping, and have a much wider range of soil properties⁴.

S-Maps indicates the Residential Site is predominantly comprised of deep, imperfectly to poorly drained peat and loamy peat soils deep, with smaller areas of moderately well and well drained rhyolitic soils. See Figure 7.

⁴ [S-map Online FAQ](#) | [S-Map Online](#) | [Manaaki Whenua - Landcare Research](#)



Figure 7. S-Maps soil classification of soils present in the Residential Site

5.4 Site Specific Soil Mapping and LUC Assessment

The NZLRI LUC maps are not intended for farm-scale interpretation. Therefore, Landsystems was engaged by SL1 Residential to undertake an assessment and review the LUC and soils of the Residential Site. This section presents the results and outcomes from these reports.

The key findings from the site-specific soil mapping are summarised as follows:

Regional Mapping Overestimated Organic Peat Soils: NZLRI mapping (see Table 2) classified almost the entire site as Organic Soils (Kaipaki peat and Rukuhia peat) and LUC Class 2 land. The detailed field survey found no ‘very poorly drained’ Rukuhia peat or Kaipaki peat soils on the Site, but a much more complex soil pattern, including:

- Horotiu–Te Kowhai soil complex (allophanic soils)
- Silverdale silt loam
- Motumaoho peaty silt loam
- Te Rapa peaty silt loam
- Te Kowhai silt loam
- Recent and modified soils.

The extent of these soils is outlined in the Residential Site is outlined in

Table 3 with a soils map presented in **Error! Reference source not found..**

Artificial Drainage Has Improved Soil Function: Many soils that would naturally be poorly or very poorly drained have been extensively modified by artificial drainage. As a result, large areas of peat and peaty soils now exhibit moderately well to imperfectly drained characteristics, resulting in higher productive capability than would be expected from regional mapping.

Non-Productive Areas Are Significant: Approximately 4ha (8.7%) of the site was mapped as non-productive land (see Figure 8), including:

- Existing houses and curtilage
- Sheds
- Farm races
- Drains and waterways
- Concrete storage areas
- Infilled sand pit areas.

LUC Class 2 Land Remains Dominant but is More Diverse: The detailed assessment identified:

- Two soil types within the LUC 2w2 designation with differentiated characteristics:
 - Motumaoho peaty silt loam, which is an organic soil moderately well to imperfectly drained which does not meet the Waipa District Council definition of a high-class soil.
 - Te Rapa peaty silt loam, a gley soil, imperfectly to moderately well drained which is a high-class soil
- Areas of previously unmapped LUC Class 3 and 4 land (see Figure 9). The reclassified areas of LUC 3 and LUC 4 cover 6.8ha, or 14.8% of the site.
 - **LUC 3w1 (5.9%)**
 - Te Kowhai silt loam found in lower-lying swales
 - Poorly drained and limited by wetness
 - **LUC 4w (1.5%)**
 - Flood-prone recent soils adjacent to waterways.
 - Limited by flooding and shallow soil depth.
 - **LUC 4s (7.4%)**
 - Modified soils associated with recent tree and shelterbelt removal.
 - Characterised by buried tree debris, loss of topsoil and disturbed profiles.
 - Considered to have reduced productive potential.

Extent of High-Class Soil is Much Lower Than Extent of LUC Class 2: Under the ODP definition only 13.6 ha (29.6%) of the site qualifies as High Class Soil. This comprises:

- LUC 2s1 Horotiu–Te Kowhai soils (9.8%)
- LUC 2e2 Silverdale soils (4.8%)

- LUC 2w2 Te Rapa soils (15%).

The remaining areas of the site are not High-Class Soil because they consist of:

- LUC 2w2 Organic Motumaoho soils (45.9%)
- LUC 3w1 Te Kowhai silt loams a non allophanic soil (5.9%)
- LUC 4 Recent and modified soils (8.9%)
- Non-productive land (8.7%).

The site-specific mapping demonstrates that the land is considerably more heterogeneous than indicated by regional NZLRI mapping. While the majority of the Residential Site remains LUC Class 2 land (77%), detailed field assessment identified substantial areas of lower capability soils, modified land, drainage-related limitations and non-productive areas. Most importantly, only 26% of the site meets the ODP definition of High-Class Soil, compared with the regional mapping impression that almost the entire site comprised highly productive Class 2 peat land.

Table 3: Soils identified within the Residential Site by Dr Hill (Landsystems)

Soil type (DSIR code+NZSC Soil Order)	Parent material	Texture profile	Slope class	Soil depth	Soil drainage	Dominant LUC unit (limitatio n)	% of Area
Horotiu-Te Kowhai complex, <i>Horotiu silt loam dominant</i> (Allophanic Soil)	Rhyolitic alluvial deposits of the 'Hinuera Formation'	Silt loam over silt or sand	A+B (0 -6°)	Deep (100+ cm)	Well to imperfectly drained	2s1 (soil)	9.8
Silverdale silt loam (Brown Soil)	Clayey alluvial material and fan deposits associated with the 'Hinuera Formation'	Silt loam over silty clay loam	B+A (0 -6°)	Deep (100+ cm)	Moderately well drained	2e2 (erosion)	4.8
Motumaoho peaty silt loam (Organic Soil, drained)	Decomposed peat on rhyolitic alluvial deposits of the 'Hinuera Formation'	Peaty silt loam over silt	A (0 -3°)	Deep (100+ cm)	Moderately well to imperfectly drained	2w2 (wetness)	45.9
Te Rapa peaty silt loam (Gley Soil, drained)	Decomposed peat on rhyolitic alluvial deposits of the 'Hinuera Formation'	Peaty silt loam over sandy loam over silty clay loam	A (0 -3°)	Deep (100+ cm)	Imperfectly to moderately well drained	2w2 (wetness)	15
Te Kowhai silt loam (Gley Soil)	Rhyolitic alluvial deposits of the 'Hinuera Formation'	Silt loam over silt or sand	A (0 -3°)	Deep (100+ cm)	Poorly to imperfectly drained	3w1 (wetness)	5.9
Unnamed recent soil (Recent Soil)	Recent flood deposits + areas of modified soil and gravel	Coarse sand or gravel over original soil	A (0 -3°)	Shallow to very shallow (< 45 cm)	Poorly drained	4w* (wetness)	1.5
Unnamed modified soil (Anthropic Soil)	Fill and subsoil material over original deposits associated with the 'Hinuera Formation'	Fill material, ground tree stumps and buried tree limbs over original silt loam soils; or truncated soil with subsoil at the surface	A+B (0 -6°)	Shallow to very shallow (< 45 cm)	Poorly drained	4s* (soil)	7.4
Non-productive land	Existing houses and curtilage, sheds, farm races, drains, concrete storage areas, and infilled sand pit.					-	8.7

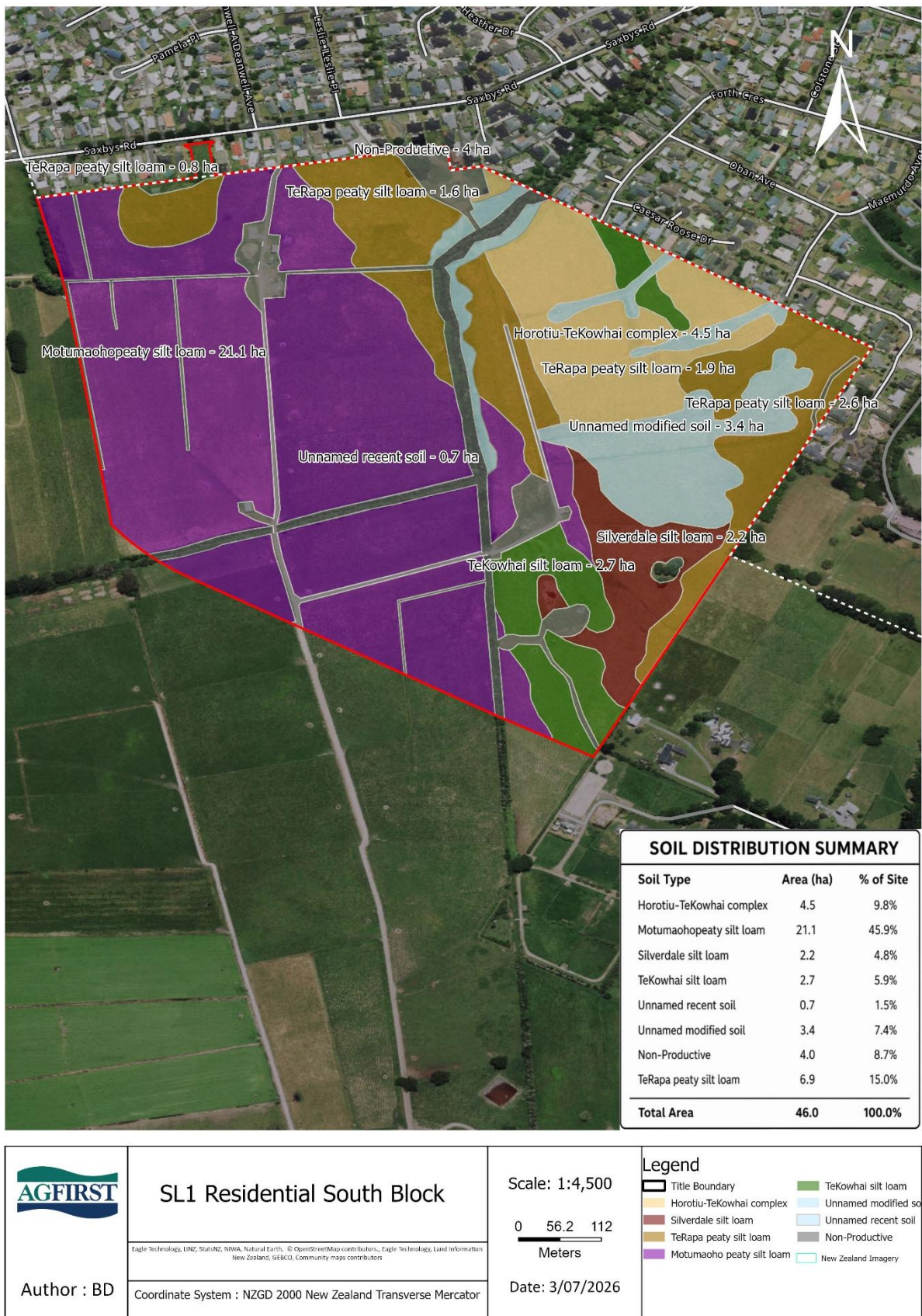


Figure 8: Site specific soil map created by Landsystems

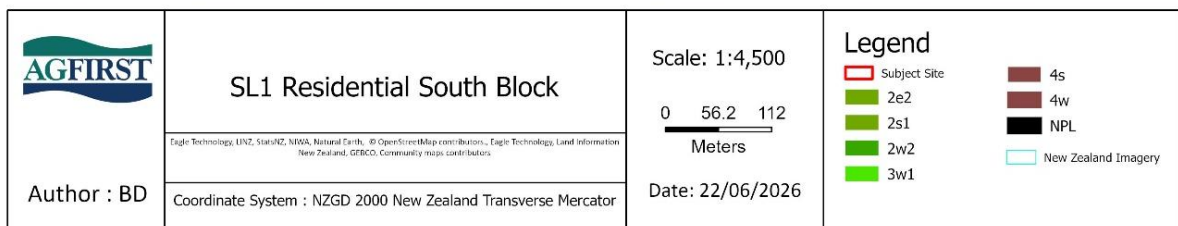
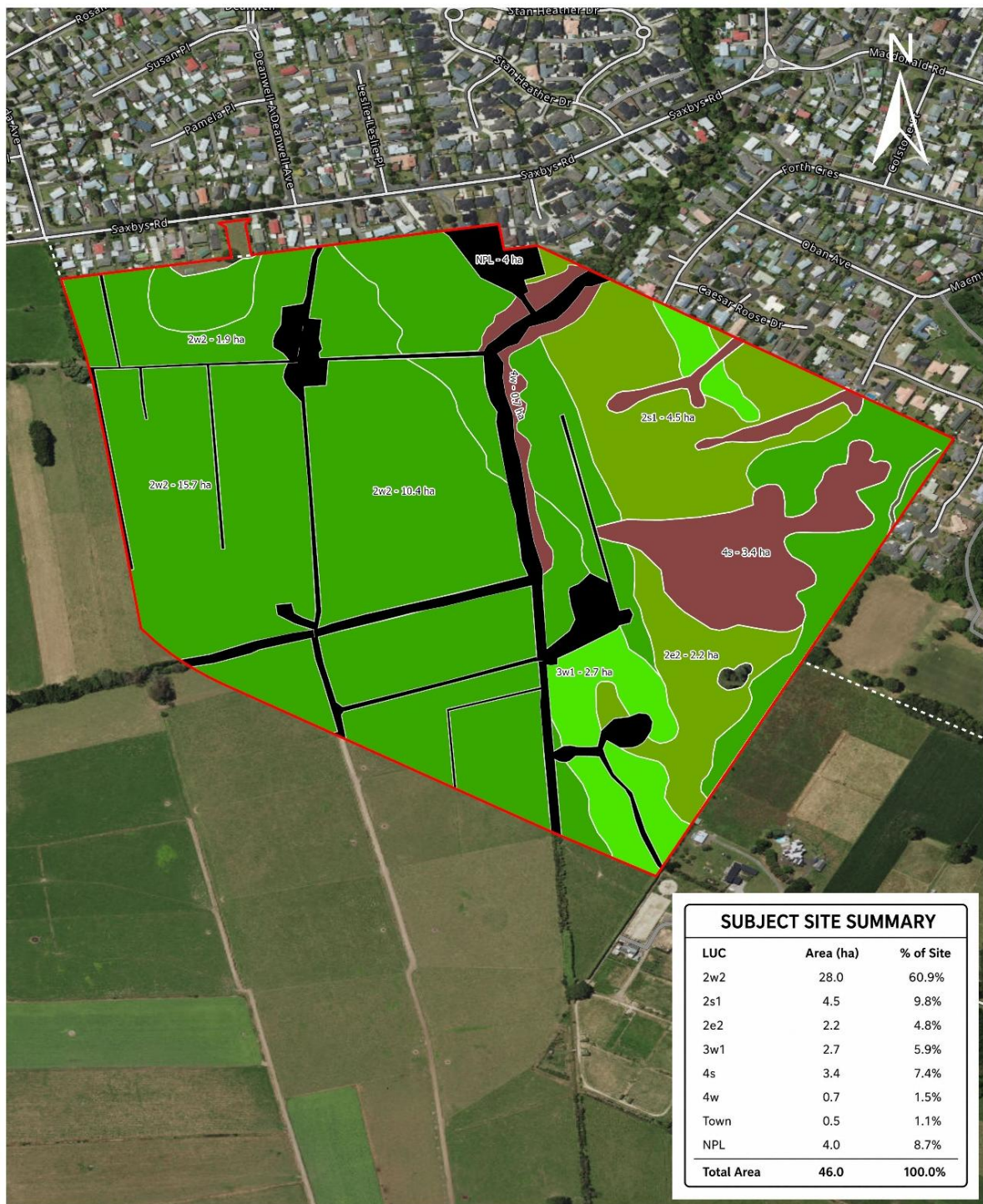


Figure 10: Site-Specific LUC mapped by Landsystems

5.5 Land Use Capability Summary

Landsystems provide the following summary of land use capability:

Applying the NPS-HPL clause 3.5(7) interim definition to the NZLRI LUC map information, 44.3 ha of the Site is highly productive land (LUC Class 2), while the 1.3 ha 'Town' area is not highly productive land.

Regional scale NZLRI and NZFSL map information showed 74% of the Residential Site was mapped as LUC 2w2 (very poorly drained moderately decomposed Kaipaki loamy peat or peaty loam on flat to gently undulating slopes), and 23% of the Residential Site as very poorly drained, weakly decomposed Rukuhia peat on flat to gently undulating slopes with an LUC classification of 2s5. Both soils are classified as Organic Soils under the New Zealand Soil Classification. The balance of the Residential Site, or 3%, was classified as “town”.

Detailed on-site mapping showed discrepancies in the extent and drainage status of LUC class 2 land, the extent of Organic Soils, and regional scale NZLRI map information did not include the occurrence of LUC class 3 and 4 land.

On-site mapping showed 75.5% of the land as LUC class 2 land, ranging from well drained to imperfectly drained mineral and organic soils. These included well to imperfectly drained LUC 2s1 land (9.8% of the Site), moderately well drained LUC 2e2 land (4.8% of the Site), moderately well to imperfectly drained LUC 2w2 land (45.9% of the Site), and imperfectly to moderately well drained LUC 2w2 land (15% of the Site). Organic Soils comprised 45.9% of the area assessed. There were isolated areas of poorly drained soils (LUC 3w1), accounting for 5.9% of the Site. On-site mapping showed the remainder comprising 8.9% LUC class 4 land (LUC 4w and 4s), which have soil depth (lack of topsoil or very shallow soil) and frequent flooding limitations.

Non-productive land and modified soil areas make up 8.7% of the total area. This includes existing houses and their curtilage, sheds, farm races, drains, concrete storage areas, and infilled sand pits. These areas are excluded when assessing productive land (i.e. they are non-productive land).

Discrepancies between regional scale NZLRI delineated LUC maps and detailed field mapping within the Residential Site and summarised in Table 4 (% of LUC class in descending order for comparative purposes)

Table 4: Cross referenced LUC designation under NZLRI and site-specific mapping by Landsystems

	Regional scale LRI/LUC:	Detailed LUC mapping
LUC 2	LUC 2w2 and 2s5 - 97%	LUC class 2 – 75.5% • 51% LUC 2w2-Motumaoho Series • 14% LUC 2w2-Te Rapa Series • 8% LUC 2s1 • 4% LUC 2e2
LUC3		LUC class 3 – 5.9% • LUC 3w1
LUC4		Total LUC class 4 – 8.9% • 6% LUC 4s • 2% LUC 4w
Non-Productive		Total – 8.7%
Not assessed	Town - 3%	

Detailed on-site assessment showed 29.6% of the Residential Site as high class soil (LUC 2s1, 2e2, 2w2-Te Rapa Series) under the ODP definition for high class soil. The balance of productive area, 61.7% of the Site, was LUC 2w2-Motumaoho Series (Organic Soil), LUC 3w1, LUC 4w, and LUC 4s, which are not high-class soil under Waipa definitions. Non-productive areas (8.7% of the site) including mapped areas of existing houses and curtilage, sheds, farm races, drains, concrete storage areas, and infilled sand pit, are not high-class soil. This is summarised below in Table 5.

Table 5. High class soils within the Development Site.

	Soils	Area
High Class Soils	• LUC 2s1 Horotiu-Te Kowhai soils • LUC 2e2 Silverdale soils • LUC 2w2 Te Rapa soils	13.6 ha (29.6%)
Not High-class soils	• LUC 2w2 Organic Motumaoho soils • LUC 3w1 Te Kowhai silt loams a non allophanic soil • LUC 4 Recent and modified soils	28.6 ha (61.7%)
Non-productive area		3.8ha (8.7%)
		46 ha

The future productivity of the Residential Site is constrained by the confirmed Hamilton Southern Links designation along its western boundary, which (together with the loss of the existing milking shed to the designation footprint) limits the practical productive potential of the wider farm operation.

6 Assessment against the NPS-HPL

AgFirst concludes that the Residential Site satisfies the Clause 3.10 exemption pathway. The evidence demonstrates that the land is subject to permanent and long-term constraints that prevent economically viable land-based primary production for at least 30 years, that development would not result in a significant district-wide loss of productive capacity or fragmentation of large cohesive HPL areas, and will not raise reverse sensitivity effects. Further, the environmental, social and economic benefits of urban development outweigh the long-term costs associated with the loss of the Residential Site from productive use.

- **Clause 3.10(1)(a) – permanent or long-term constraints on economic viability:** The Residential Site is constrained by its small effective area and impeded drainage of the dominant peat-based soils which limits use to pastoral agriculture. Additionally, the loss of core dairy infrastructure through the Southern Links designation requires significant reinvestment to return the land to an operable farming unit. These physical and operational constraints are compounded by the Residential Site's proximity to Hamilton City, which results in elevated land values and rates, and sensitivity effects on adjoining residential and rural-residential development that precludes many activities required for intensive agriculture.

AgFirst considers that the highest and best use of the Residential Site for land-based primary production is pastoral grazing. Economic modelling shows that the reasonably practicable land uses assessed—dairy farming, dairy grazing, maize silage and mixed maize/dairy grazing—do not provide a commercially viable long-term return once operating costs, depreciation, redevelopment costs, interest, family living requirements and reinvestment needs are considered. Returns on capital range from 0.39% to 2.20%, which is significantly below the five-year average 10-year Government bond return of 4.07%. A rational investor would not reasonably develop or retain the Site as a stand-alone farming business on that basis.

- **Clause 3.10(1)(b)(i) – significant loss of productive capacity:** Although the Residential Site contains land mapped as HPL, detailed soil and LUC assessment demonstrates that its actual productive capacity is materially less than regional mapping suggests. Only 13.6 ha, or 29.6% of the Site, qualifies as High Class Soil under the ODP Plan definition. The balance comprises organic Motumaoho soils, LUC 3 and LUC 4 land, modified soils, waterways, drains, infrastructure and other non-productive areas. The mapped HPL affected by the Residential Site represents just 0.04% of the Waipā District HPL resource and therefore does not materially impact district-wide productive capacity.
- **Clause 3.10(1)(b)(ii) – fragmentation of large geographically cohesive HPL:** The proposal would not fragment a large, cohesive productive land resource. The

Site is already divided across three titles, and is internally fragmented by drains, waterways, and non-productive areas. It will also be physically separated from other rural land by the Southern Links designation. Surrounding land is already influenced by Hamilton's urban fringe, rural-residential activity and lifestyle ownership patterns. The land therefore does not function as part of a large, contiguous and versatile productive block of the type the NPS-HPL seeks to protect.

- **Clause 3.10(1)(b)(iii) – reverse sensitivity effects:** The existing productive use of the Residential Site is already constrained by sensitive receptors on adjoining residential and rural-residential land, public open space and the Hamilton urban boundary. Activities such as cultivation, fertiliser application, effluent management, agrichemical spraying, vehicle movements, dust, odour, and noise are increasingly difficult to undertake without potential conflict with urban populations. Urban development of the Residential Site is unlikely to materially increase reverse sensitivity effects on surrounding land-based primary production because the Southern Links designation provides separation from the wider rural zone.
- **Clause 3.10(1)(c) – benefits outweigh costs:** The long-term cost of losing the Site from land-based primary production is limited because its productive potential is physically constrained, economically marginal and small in a district context. In contrast, the proposed urban development is expected to deliver substantial social, economic and environmental benefits, including housing supply, employment during construction, ongoing local economic activity, open space, ecological restoration, improved stormwater management and reduced agricultural nutrient and greenhouse gas losses relative to continued dairy use. On balance, these benefits outweigh the limited productive capacity that would be lost.
- **Clause 3.10(2) – reasonably practicable options:** The assessment has considered the full range of reasonably practicable options identified in Clause 3.10(2). More intensive agriculture such as commercial vegetable production or horticulture are not reasonably practicable due to impeded drainage, peat soil characteristics, water requirements, and regulatory constraints under PC1 that preclude intensification.

Improved drainage and land management would be costly and unlikely to overcome the fundamental limitations. Alternative production systems do not materially improve profitability. Water storage is not relevant to the highest and best pastoral land uses and would not overcome soil and economic constraints.

Amalgamation and boundary adjustment opportunities are limited by surrounding ownership, elevated land values, the Southern Links designation and freshwater planning constraints. Leasing would not overcome the underlying

lack of productive return because insufficient surplus exists to provide an adequate return to both landowner and operator.

- **Clause 3.10(3) – evaluation requirements:** The assessment has not relied on the potential economic benefit of urban development to determine whether productive use is viable. It has assessed productive options on their own merits. Even when assessed as a consolidated productive unit and under the highest and best reasonably practicable productive uses, the Site remains unable to sustain economically viable land-based primary production over the long term.
- **Clause 3.10(4) – size not determinative:** The conclusion is not based on the size of the landholding alone. Rather, it reflects the combined and enduring effects of physical soil limitations, loss of productive infrastructure, fragmentation, reverse sensitivity, elevated land values, constrained amalgamation opportunities and poor economic returns. These constraints are believed to be permanent or long-term and are likely to persist for at least 30 years.

6.1 Economic Viability

The definition and methodology to determine economic viability were presented at the New Zealand Agricultural and Resource Economics Society Conference in 2024⁵ and published in the New Zealand Institute of Rural Professionals (NZIRP) journal. In the article Journeaux sets out the following conditions for economic viability:

The income from the farm needs to be sufficient to cover:

- Operating costs, e.g. wages, animal health, fertiliser, repairs and maintenance, etc Fixed costs such as rates, insurance, administration.
- Depreciation
- Living costs for the family
- Debt servicing and debt repayment
- A surplus then available for the future development of the farm business

This is a more comprehensive and complex assessment than simply having the ability to generate positive gross margin, EFS (Economic Farm Surplus), or EBITRm (Earnings before interest, tax, rent and wages to management).

Ultimately, a viable farming operation in the real world must be one that an objectively reasonable person would choose to undertake having weighed up the costs and benefits.

The following section sets out the analysis to determine the economic viability of the Development Site.

6.2 Economic Analysis

The following economic analysis has been undertaken to determine the likely economic viability of the Development Site relative to the criteria outlined in Section 6.1 under various land use options.

6.2.1 Approach

The following economic analysis steps through:

- The options considered
- Available land area
- A capital budget to determine the investment required to achieve the proposed land uses
- Expected performance parameters

⁵ [Journeaux - Definition of Farm Economic Viability.pdf](#)

- Operational budgets
- Return to the operator
- Return on capital invested

Underpinning the analysis are several key assumptions, including:

Single land use: The productive potential of the Residential Site has been assessed as a single unit of 46 ha with farm system imposed over the entire area.

Reasonably practicable land uses have been considered based on the quality and capability of the soils and land resources, and the effective area available for production. Constraints across the Residential Site, including wetness limitations, fragmentation caused by the Southern Links Designation and proximity to the town boundary, have caused intensive cropping and horticulture to be discounted as options.

Land and rating valuations: Property information was obtained from the Waikato Regional Council⁶ and Waipā District Council⁷. Both land value and rates have been apportioned on a pro-rata per hectare basis as proxies for site specific values.

District council valuations do not consider future potential and are a suitable proxy for land value. Subclause 3.10(3)(a) of the NPS-HPL states:

“(3) Any evaluation of Subclause (2) of reasonably practicable options:

*(a) Must not take into account the **potential** economic benefit of using highly productive land for purposes other than land-based primary production.”*

The word ‘potential’ is emphasised as this is defined as: *“able to develop into something in the future when the necessary conditions exist⁸”* In its current state, the Residential Site comprises pastoral grazing land utilised as part of a dairy system.

It can be argued the rating valuations, which place the average land value at \$96,972/ha are well in excess of the productive value and do account for some potential to be derived from future change in land use. However, the NPS-HPL has been in force since October 2022 (amended December 2025). The most recent rating valuations were assessed as of 1 August 2025 by Waipā District Council. On this basis it can reasonably be expected that this potential is not included in the valuation as Waipā District Council would be aware this land was subject to the NPS-HPL. This information for the properties is summarised in Table 6.

Table 6. Property valuations and ratings

⁶ <https://waikatomaps.waikatoregion.govt.nz/Viewer/?map=55b8257996464fda923a6fa3c8a9115e>

⁷ <https://www.waikatodistrict.govt.nz/services-facilities/rates/rates-information-database/property/1006063>

⁸ <https://dictionary.cambridge.org/dictionary/english/potential>

Property ID	Valuation #	Title Area (ha)	Rating Land Value (\$/ha)	Title Area in Development Site	Pro-rata Land Value (\$)
61879	04581/052.01	7.597	169,804	7.50	1,273,529
72898	04581/051.05	22.1092	85,032	21.20	1,802,688
61880	045581/052.02	59.978	80,029	17.30	1,384,508
Total				46.00	4,460,725
Average Land Value (\$/ha)					96,972

These valuations are not representative of a hypothetical or potential future value, but rather an estimate of the current market value, strongly influenced by the site's proximity to Hamilton City. Therefore, the use of council land valuations as proxy market values does not, in AgFirst's opinion, contravene Clause 3.10(3)(a) of the NPS-HPL.

Interest rates have been assumed as a long-term average of 7%⁹.

Principal repayments have not been included in the analysis.

Redevelopment costs have been estimated by sourcing estimates from the market and resources such as the Lincoln Farm Budget Manual.

Housing is seen to be an essential part of operating the farm system, especially the livestock systems due to the need to be regularly monitoring animal feeding and health. This requirement is also present when grazing winter cows in the maize silage system. Housing has therefore been included in the redevelopment cost.

6.2.2 Options analysis

The subject property is currently operated as part of a dairy farm, however the motorway designation results in the dairy shed, effluent system, and water supply being demolished and the block being stranded without housing and other ancillary farm buildings. To reestablish the farm as a productive unit the following options have been evaluated:

Dairy farming

This is assumed to be feasible as an existing land use. The analysis is based on a typical Waikato farm system as described the DairyNZ Econ Tracker and includes a stand-off facility to help address the wetness limitations of the soils. While the existing land use is dairy farming and Rural, there is a likelihood that the

⁹ Exchange rates and Wholesale interest rates - Reserve Bank of New Zealand - Te Pūtea Matua (rbnz.govt.nz) 1993-2023 years with a 2.2% bank margin applied to the 90-day bank bill monthly average yield

farming operations have been moderated and managed to avoid reverse sensitivity effects due to the proximity of the urban boundary.

As depicted in Figure 4, the Hamilton Southern Links highway designation also leaves only 46ha (42.2 ha effective) of land remaining as a dairy farm. Due to the Waikato Region Proposed Plan Change 1 (PC1) land use change regulations¹⁰, the surrounding drystock farmland would not be able to change land use. This leaves the dairy platform being of an unviable size, particularly when new infrastructure is required.

Dairy grazing

This is a simple R2 heifer grazing system with stock coming on in May at 9 months and leaving 12 months later. It utilises a high stocking rate reflecting the contour and fertility of legacy land use.

Maize silage

This is based on the owner contracting cultivation and selling maize standing. Annual ryegrass is planted following the crop, with cows coming in for 6 weeks, and cut for silage and sold standing prior to cultivation for the next maize crop. It is questionable as to whether this is a sustainable system in the long term due to the soil wetness and likely loss of peat soils under continued cultivation as described by Manaaki Whenua¹¹.

Mixed dairy grazing/maize system (75% maize)

This land use incorporates livestock into the maize system to provide a break in the cropping rotation and manage the long-term sustainability of maize.

Intensive cropping or horticulture have not been considered due to:

¹⁰ Set out the Waikato Regional Council PC1 is Policy 2 (c) relating to this land use change “Generally not granting land use consent applications for changes in land use that involve a material increase in the intensity of the use of land compared to the land uses as at 22 October 2016, unless it can be demonstrated that this would result in a positive contribution to the health and wellbeing of the Waikato and Waipā river catchments in accordance with Policy 5” Policy 5 refers to the overall reduction in diffuse discharges.

¹¹ Pronger, J. (2024). Peatland/peat soils subsidence control. In: Lohrer, D., et al.

- Wetness limitations in the soil types that are likely to prevent timely crop husbandry. This is also a possibility with maize silage.
- Reverse sensitivity created through practices such as horticultural spraying that would not be acceptable adjacent to the town boundary.

6.2.3 Land Area

A considerably reduced land area is available, with the Residential Site comprising 46 ha, of which 3.8 ha is unproductive, leaving a maximum effective area of 42.2 ha. This compares to the average size of a Waikato dairy farm at 130 effective hectares and a sheep and beef operation at 349 effective hectares.

As part of the redevelopment various areas will also be taken out to provide for infrastructure development. Table 7: Effective area under different land use options. contains the details for the total area within the Residential Site that is suitable for these land uses:

Table 7: Effective area under different land use options.

Land use	Dairy	Maize	Dairy Grazing	Maize/ Grazing
Total Land Area (ha)	46.0ha	46.0ha	46.0ha	46.0ha
Less:				
Existing non-productive areas	3.8	3.8	3.8	3.8
Allowance for farm dairy / shedding	0.5	0.05	0.05	0.05
Allowance for driveway and raceways	0.35	0.01	0.2	0.2
Allowance for housing	0.25	0.25	0.25	0.25
Effective Area (ha)	41.1	41.89	41.70	41.70

It should also be noted that under proposed setback requirements in Waikato Regional Plan Change 1 that would apply to the Mangakotukutuku Stream unproductive area may be increased by up to 1-2 ha. This has not been factored into the analysis at this point.

6.2.4 Capital Budget

A capital budget (see **Error! Reference source not found.**) to reestablish each operation has been estimated based on discussion with providers. All land use options require:

- Housing for the owner
- Farm storage sheds
- Services such as power and fibre to the building sites
- Water supply, including well drilling, for stock and/or washdown
- Fencing

This core infrastructure does vary slightly between options but is approximately \$910,000 as reflected in the maize budget.

The dairy farming land use is the most expensive proposition due to the need for a dairy shed and effluent system (\$710,000). Due to wetness limitation on these soils, a standoff facility has also been budgeted to enable consistent production and long-term sustainability.

The dairy grazing option includes cattle handling facilities (\$65,000) in addition to the to the core budget, which is also required for the mixed grazing / maize option.

It is noted the dominant soils on the property are of peat origin, with wetness limitations. This may complicate development of infrastructure, for example requiring additional siteworks to establish firm foundations. As a result, AgFirst believes these are conservative estimates.

Table 8: Redevelopment costs for land use options

	Dairy	Dairy Grazing + Mixed	Maize
Dairy Shed - 14 aside herringbone			
Tanker Track	37,500		
Building, yards and concrete	\$280,000		
Plant & equipment	\$280,000		
Effluent system	\$150,000		
Site works/consents	\$100,000		
Services (power, fibre)	\$50,000	\$50,000	\$50,000
Water bore, Tanks and pumps	\$60,000	\$60,000	\$60,000
Other (water supply, fencing, raceways and shedding)	\$150,000	\$100,000	\$50,000
Stand-off / Barn (\$2,800/cow)	\$327,978		
Owner's housing incl surrounds, driveway and services	\$750,000	\$750,000	\$750,000
Cattle Yards		\$50,000	
Cattle Crush		\$15,500	
Redevelopment costs	2,185,478	1,025,500	910,000

6.2.5 Performance Parameters

The performance parameters for the operational budgets are summarised in Table 9: Overview of system parameters and prices for lands use options. The performance is intentionally conservative given the wetness limitations of the soil types present on the

block and very small scale for dairy and grazing systems. For example, maize silage yields are pitched at 18 tDM/ha, rather than a district average of 20 tDM, to allow for the fact that ground conditions will hamper both planting and harvesting dates on a regular basis, compromising yield potential.

Table 9: Overview of system parameters and prices for lands use options

	Dairy		Dairy Grazing		Maize		Maize/ Grazing	
Effective area	41.1	ha	41.79	ha	41.89	ha	31.3	ha Maize
							10.4	ha Grazing
							41.7	ha
Stocking rate	2.85	Cows/ha	24	su/ha			24	su/ha
Stock nos	117	Cows	196	Heifers	222	winter cows (6wks)	165	winter cows
							49	Heifers
Yield	1,083	kgMS/ha			18	tDM/ha	18	tDM/ha
	380	kgMS/cow			348	bales		
Prices	9.00	\$/kgMS	15.00	\$/hd/wk	0.35	\$/kgDM Standing	0.35	\$/kgDM Standing
					28.00	\$/hd/week Winter Cows	28.00	\$/hd/week Winter Cows
					45.00	\$/Bale Standing ¹²	45.00	\$/Bale Standing
							15.00	\$/hd/wk Hfrs

¹² Annual silage is typically sold as standing grass and baled. The grower is paid per bale – the equivalent of 180 - 200 kgDM, which equates to 22.5 to 25 c/kgDM.

6.2.6 Operational Budget

AgFirst has created operational budgets utilising benchmark data from DairyNZ's Econ Tracker for Waikato Owner Operators, Beef+LambNZ's(B+L)¹³ Economic Survey and Pioneer' Growing and harvest Cost Guide to estimate return on investment for the four potential land uses. Acknowledging that commodity cycles and other factors in the business environment cause fluctuations in returns and costs the budget uses five-year averages, unless more reliable information is available. These operational budgets are summarised in Table 10.

Table 10: Summary of operational returns to proposed land use options

	Dairy	Dairy Grazing	Maize Silage	Maize/ Dairy Grazing
Revenue	483,505	153,064	322,164	278,708
<i>Expenditure</i>				
Operating Expenses	197,670	65,952	151,720	129,729
Other Expenses	152,036	65,452	50,827	65,437
Total Expenses	349,705	131,404	202,546	195,166
EBITRm	133,800	21,659	119,618	83,542
EBITRm/Hectare	3,255	527	2,856	2,003

While AgFirst do not consider it to be viable due to the restricted scale (42.2 ha) and infrastructure development required, dairy farming is the most profitable land use, followed by maize. The budgeted performance compares poorly to industry averages on an EBITRm/ha basis (-20 to 30%)¹⁴. Waikato dairy farmer owner operators have averaged \$4,100/ha over recent years while sheep and beef finishing farms have averaged \$780/ha. The performance of the proposed land uses is held back by diseconomies of scale, particularly in capital development, administrative and insurance expenses, as well as high levels of rates, being \$218/ha compared to \$150/ha for dairy operations and \$55 for sheep and beef in rural Waikato.

Expanded cash flows for each land use option are provided in Table 11 to Table 14.

¹³ [northern-north-island-class-5-finishing.xlsx](#)

¹⁴ DairyNZ Econ Tracker

Table 11: Dairy Farming Cash Budget

PHYSICAL CHARACTERISTICS	Comparative Basis	5 Year Industry Average	Development Site
Effective hectares			41.1
Stocking rate (cows/ha)	Farm	2.85	2.85
Peak cows milked	Calculate		117
Milksolids sold per cow	Farm	384	380
Milksolids sold per hectare	Calculate		1,083
Kg milksolids sold			44,511
DAIRY CASH INCOME			
PAYOUT RECEIVED: \$/kg MS sold	Farm	9.04	9.00
Milk sales (net of dairy levies)			400,602
Net livestock sales (sales - purchases)	\$cow	218	82,903
Other dairy cash income			
Net dairy cash income			483,505
CASH FARM WORKING EXPENSES			
Operating Expenses			
Wages	\$cow	263	2,000
Animal health	\$cow	127	14,915
Breeding & herd improvement	\$cow	75	8,824
Farm dairy	\$cow	36	4,158
Electricity	\$cow	56	6,560
Net feed made, purchased, cropped	\$ha	1,938	79,666
Calf rearing (excluding labour)	\$cow	25	2,909
Young & dry stock grazing	\$cow	99	11,635
Winter cow grazing	\$cow	2	195
Fertiliser (incl Nitrogen)	\$kgMS	0.51	22,552
Regrassing	\$ha	93	3,822
Weed & pest	\$ha	45	1,836
Vehicles	\$cow	77	9,058
Fuel	\$cow	25	2,948
Repairs & maintenance - land & building	\$ha	387	15,919
Repairs & maintenance - plant & equipment	\$ha	174	7,138
Freight & general	\$cow	30	3,534
Total Operating Expenses			197,670
Other Expenses			
Administration	Farm	23,850	23,850
Insurance	Farm	16,210	16,210
ACC	\$cow	15	1,698
Rates - District Council			7,800
Rates - Regional Council			2,228
Depreciation			100,249
Total Expenses			349,705
EBITRm			133,800
\$/ha			3,255
\$/cow			1,142

Table 12: Dairy Grazing Cash Budget

PHYSICAL CHARACTERISTICS	Comparative Basis	5 Year Industry Average	Development Site
Effective Area (Hectares)		300	41.7
Total Labour Units		2	0.56
Total Stock Units at Open		3,347	1,000
Stock Units per ha		11.6	24
Head			196
Head/ha			4.71
REVENUE			
Dairy Grazing	Rate/hd/wk	15	153,064
Gross Revenue			153,064
EXPENDITURE			
Operating Expenses			
Wages	Other		0
Animal Health	\$/SU	5.18	5,186
Weed & Pest Control	\$/ha	26	1,100
Fertiliser	Other		24,645
Lime			0
Seeds	\$/ha	60	2,517
Vehicle Expenses	\$/SU	4.72	4,728
Fuel	\$/SU	4.73	4,734
Electricity	\$/SU	1.22	1,223
Feed & Grazing	\$/SU	7.78	7,784
Cultivation & Sowing	\$/ha	29	1,201
Cash Crop Expenses	\$/SU	2.85	
Repairs & Maintenance	\$/SU	12.32	12,334
Cartage	Other		500
Total Operating Expenses			65,952
Other Expenses			
Administration Expenses	Farm	14,828	14,828
Insurance	Farm	8,918	8,918
ACC Levies	\$/LU	900	915
Rates			
Waipa District	Site		7,800
Waikato Regional	Site		2,228
Depreciation	Cap budget		\$30,763
Total Farm Expenditure			131,404
EBITRm			21,659
\$/ha			519
\$/stock unit			21.64

Table 13: Maize Silage Cash Budget

PHYSICAL CHARACTERISTICS	Industry Average	Development Site
Effective Area (Hectares)		41.9
Total Labour Units		0.20
REVENUE		
Maize		
Yield TDM/ha	18	
Price (\$/kgDM standing)	0.35	263,970
Winter Grazing		
Cows/ha for 6 weeks	5.3	
Price (\$/hd/week)	28	37,244
Grass Silage		
Yield (bales/ha)	11.1	
Price (\$/bale standing)	45	20,950
Gross Revenue		322,164
EXPENSES		
Operating Costs		
Maize	\$/ha	
Soil test	10	419
Spray out	90	3,771
Cultivation	505	21,160
Base Fertiliser	620	25,978
Planting	250	10,475
Seed - dressed	880	36,872
Starter Fertiliser	350	14,665
Pre-emergent spray (applied)	130	5,447
Nitrogen Side dressing (applied)	370	15,503
Annual		
Seed	114	4,777
Planting	130	5,447
Nitrogen (applied)	172	7,207
Total Operating Costs		151,720
Other Costs		
Administration Expenses	Grazing	14,828
Insurance	Grazing	8,918
ACC Levies	Grazing	902
Rates		
Waipa District	Site	7,800
Waikato Regional	Site	2,228
Depreciation	Cap Budget	16,150
Total Farm Expenditure		202,546
EBITRm		119,618
\$/ha		2,855

Table 14: Mixed Cropping /Dairy Grazing Cash Budget

PHYSICAL CHARACTERISTICS			Development Site
Effective Area (Hectares)			41.7
Proportion in maize			75%
Total Labour Units			0.14
Total Stock Units at Open			250.2
Stock Units per ha			24
Head			49
Head/ha			4.71
REVENUE	Unit		
Dairy Grazing	\$/hd/wk	15	38,266
Maize/Graze/Silage	\$/ha	7,688	240,442
Gross Revenue			278,708
EXPENDITURE	Unit		
Operating Expenses			
Dairy Grazing	\$/ha	1,581	16,482
Maize/Graze/Silage	\$/ha	3,621	113,247
Total Operating Expenses			129,729
Other Expenses		Source	
Administration Expenses		Grazing	14,828
Insurance		Grazing	8,918
ACC Levies		Grazing	900
Rates			
Waipa District		Site	7,800
Waikato Regional		Site	2,228
Depreciation		Cap Budget	\$30,763
Total Farm Expenditure			195,166
EBITRm			83,542
\$/ha			2,003

6.2.7 Return to the Operator

Return to the operator has been assessed in on the basis of the cashflow's ability to cover the cost of redevelopment from debt and provide a suitable return to the owner for living costs and principal repayments. These are provided in Table 15.

Table 15: Summary of redevelopment costs and return to the operator under proposed land use options

	Dairy	Dairy Grazing	Maize	Maize/ Dairy Grazing
Redevelopment cost	2,185,478	1,025,500	910,000	1,025,500
Interest (7%)	152,983	71,785	63,700	71,785
Funds available for living, tax and principal repayments	-19,184	-50,126	55,918	11,757

Both dairy and dairy grazing fail to cover the interest cost associated with the redevelopment of the site. The maize land use is the most positive option but at \$55,000 it is approximately 50% of the median national annual household income¹⁵ and only 40% of the mean household income.

After tax, this is equivalent to \$44,638 per year. It is unlikely that this is sufficient to provide a family with a sustainable level of drawings and would necessitate additional income, thereby making the unit unsustainable by definition. It is also highly unlikely that an investor capable of developing this site, which requires a minimum of \$5.5 million, would accept this comparatively low level of earnings.

Table 16: Mean and median annual household income in New Zealand

Income source	Mean annual household income		Median annual household income	
	Dollars	Relative sampling error	Dollars	Relative sampling error
Year ended June 2025				
Total gross income	139,111	1.2	109,556	1.5
Total taxes and levies paid	32,080	1.8	21,053	1.9
Total disposable income	108,329	1.1	89,685	1.3

¹⁵ [household-income-and-housing-cost-statistics-year-ended-june-2025-corrected.xlsx](#)

It should also be noted that continual long-term cropping of maize silage is not a sustainable land use, with the land requiring a rotation into pasture to rebuild structure and organic matter.

It is acknowledged that drawings and wages for management are not the same thing, and that scale and income dictate ability to take drawings. However, for reference the average Waikato dairy farmer had \$140,000 drawings and the average finishing farmer had \$89,000 according to DairyNZ and Beef+LambNZ respectively.

The Federated Farmers Remuneration Survey details total package values for dairy sheep and beef and arable at between \$100,000 and \$108,000 per annum. This market rate has been used to pro-rate a wage to management based on the proportion of an FTE required to run the operation. It should be noted the pro-rated wage to management is not sufficient to support a family and would require additional income in all but the dairy farming land use.

Table 17: Estimated wage to management

	Dairy	Dairy Grazing	Maize Silage	Maize/ Dairy Grazing
Commercial package	101,726	108,603	103,345	105,000
Proportion of Full Time Equivalent	1.00	0.55	0.30	0.50
Pro-rated wage to management	101,726	59,732	31,004	52,500

The impact of applying this wage to management to the 'Funds available for living, tax and principal repayments' in Table 15 is illustrated below. As can be seen, the proprietor is unable to reinvest in the business in all but the maize silage land use. This is primarily due to the relatively low labour input for the system which is based on contract services.

Table 18: Funds available to reinvest in the business after wages to management are deducted

	Dairy	Dairy Grazing	Maize	Maize/ Dairy Grazing
Funds available for living, tax and principal repayments	-19,184	-50,126	55,918	11,757
Funds available for investment after deducting pro-rated wage to management	-120,910	-109,858	24,914	-40,743
Funds available for investment after deducting full wage to management	-120,910	-158,729	-47,427	-93,243

At a management wage of \$31,004, or even \$59,732, this is still unlikely to be sufficient to support an average family, requiring additional income. If a full average wage to management is deducted no land use has funds available to reinvest.

6.2.8 Return on Capital Invested

‘Commercially viable’ also implies a fair rate of return for the capital invested in the business. Dairy is the most capital-intensive option at \$6.53 million with maize and dairy grazing having approximately \$5.5 million invested.

Table 19: Summary of capital invested for each land use

Capital Invested	Dairy	Dairy Grazing	Maize
Non-depreciable assets			
Land	4,460,222	4,460,222	4,460,222
Stock	336,880		
Owner’s housing	750,000	750,000	750,000
Other	137,500	\$50,000	
Depreciable Assets at Average Value	846,861	246,298	230,000
Total Capital Invested	6,531,464	5,506,520	5,440,222

The largest part of the capital value is in land which has been valued using the Waipa District Council’s rateable value as a proxy.

Table 20: Determination of land value from rateable value

Property ID	Valuation #	Title Area (ha)	Land Value (\$/ha)	Area in Development Site	Pro-rata Land Value (\$)
61879	04581/052.01	7.597	169,804	7.50	1,273,529
72898	04581/051.05	22.1092	85,032	21.20	1,802,688
61880	045581/052.02	59.978	80,029	17.30	1,384,508
			Total	46.00	4,460,725

The return on capital invested (EBITRm/Total Investment) ranges between 0.39% and 2.2%. This is significantly lower than the 10-year Government bond rate¹⁶, which has averaged 4.07% over the last 5 years.

¹⁶ [Wholesale interest rates \(B2\) - Reserve Bank of New Zealand - Te Pūtea Matua](#)

Table 21: Summary of return on investment under proposed land use options

	Dairy	Dairy Grazing	Maize	Maize/ Dairy Grazing
EBITRm	133,800	21,659	119,618	83,542
Total Investment	6,531,464	5,506,520	5,440,222	5,506,520
Return on Capital	2.05%	0.39%	2.20%	1.52%

Government bonds are generally considered to be the safest available investment and over the last five years have returned on average double the available return from the proposed land uses. This suggests that a rational investor would not see the development of agricultural systems as a viable farming proposition for the Development Site.

6.3 Assessment of Economic Viability

As described by Journeaux (2024) the income from the farm needs to be sufficient to cover operating costs, depreciation, living costs for the family, debt servicing and debt repayment, and a surplus available for the future development of the farm business. As a pre-requisite the system must be sustainable in the long term based on land resources. The proposed land use's ability to meet these criteria is illustrated in Table 22 below.

Table 22: Summary assessment of economic viability for land use options

	Dairy	Dairy Grazing	Maize Silage	Mixed System
Sustainable system based on land resources	Unlikely	Yes	Unlikely	Yes
EBITRm	133,800	21,659	119,618	83,542
<i>Return on capital (EBITRm/Capital Value)</i>	<i>2.05%</i>	<i>0.39%</i>	<i>2.20%</i>	<i>1.52%</i>
<i>less: Interest on redevelopment costs</i>	152,983	71,785	63,700	71,785
Funds available for living, debt and reinvestment	-19,183	-50,126	55,918	11,757
<i>less: Living costs for the family</i>	101,726	108,603	103,345	105,000
CASH POSITION (Funds available for debt and reinvestment)	-120,909	-158,729	-47,427	-93,243

This demonstrates that no system generates a positive level of funds after covering operating expenses, depreciation, the interest cost of redevelopment, and a household income. All systems deliver a negative cash position and leave no avenue to repay debt or further invest in the business.

The return on capital invested is modelled at a maximum of 2.2% before deducting a reward to management and interest costs. This compares poorly to a low-risk investment in Government 10-year bonds which have yielded an average return of 4.07% over the last 5 years.

A reasonable investor would not consider development of the site into a dairy farm to be a viable business proposition. This result is primarily due to the combined effects of small scale, land use change restrictions that would not allow expansion across non-dairy land, and elevated land values influenced by the proximity of Hamilton City.

Accordingly, AgFirst concludes that the Development Site is not economically viable for land-based primary production and that there are no reasonably practicable options available to overcome these constraints.

6.4 Permanent or Long-Term Constraints

The Development Site is subject to a number of long-term constraints:

- Small scale and non-economic returns
- Existing title fragmentation that could result in the sale of the development site in small non-economic blocks to maximise value.
- Proximity to the town boundary resulting reverse sensitivities limiting land use
- Inability to amalgamate
- Waikato Regional Plan Change 1 restrictions that would require a resource consent to amalgamate the dry stock land with the dairy farm¹⁰.

Economic returns

The economic viability assessment presented in Section 6.2 demonstrates that land values and associated rating obligations combined with small scale means that the practicable land use options are not commercially viable.

AgFirst believe there are no current technologies or land use options on the horizon that will significantly change the economic outcomes for the Residential Site.

Existing Fragmentation

The Residential Site is currently divided into three titles. There are no certainties that this block will be maintained as a productive unit. Selling the titles as lifestyle blocks is the most likely way to maximise value on the owners meaning the land would likely revert to extensive pastoral use. Figure 11 shows the surrounding urban areas in relation to the Residential Site.

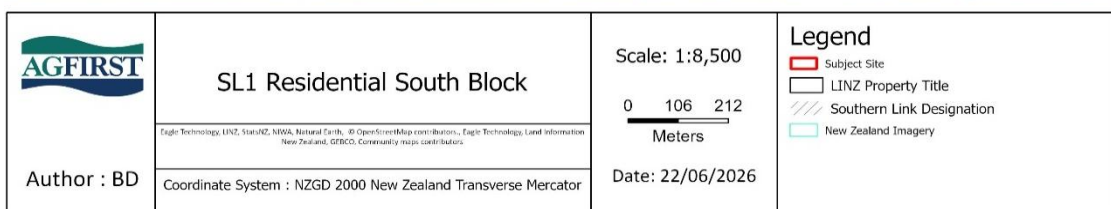


Figure 11: Encroachment of urban areas on Residential Site

Town Boundary

The Residential Site is extensively bordered to the north and north-east by medium-density residential development, resulting in a substantial increase in the number of sensitive receptors adjacent to the land. Lifestyle holdings constrain the Residential Site to the southeast and road designation to the west.

The proximity of residential dwellings, public open spaces such as Resthills Park, and associated recreational users creates additional operational constraints for land-based primary production. Activities commonly associated with productive rural land use, including cultivation, grazing, fertiliser application, effluent application, agrichemical use, vehicle movements, dust generation and noise, are likely to be subject to increased scrutiny and potential reverse sensitivity effects.

There are limited physical buffers between the Residential Site and the surrounding residential development. While isolated shelterbelts and amenity planting provide some screening, large areas of the Residential Site remain exposed to neighbouring properties and public viewing areas constraining ability to undertake productive farming activities without potential effects on neighbouring amenity values.

These constraints are likely to become more pronounced as urban development continues to intensify around the area.

Amalgamation

Amalgamation with adjoining properties could theoretically improve operational efficiency, with the maximum land aggregation available being up to 101ha. However, this is not considered a realistic solution:

- The surrounding landholdings are relatively small with high land values that are unlikely to be economic to incorporate into the operation. They are more likely to maximise value as lifestyle blocks.
- The most financially feasible option is dairying, which requires considerable investment in infrastructure that is not easily added to. Incorporating additional area would require the owner to site the farm dairy and make it of sufficient size to cope with up to three times as many cows in the hope they can purchase the land. The same applies to stand off facilities.
- Land use change restrictions also restrict conversion of non-dairy land into dairy farms¹⁰

AgFirst considers that the constraints affecting the Residential Site are permanent or long-term in nature and cannot reasonably be overcome. The combination of physical land limitations, elevated land values and rates, surrounding residential development and reverse sensitivity effects, significantly restricts the productive potential and economic viability of the Residential Site.

6.5 Avoidance of Significant Loss, Fragmentation and Reverse Sensitivity

The Residential Site is located immediately adjacent to Hamilton City and is bound to the north and east by extensive rural-residential development, and to the west by the Hamilton Southern Links highway designation which annexes the area from other pastoral land. This causes a highly fragmented pattern of land use that is fundamentally different from the large geographically cohesive areas of productive land that the NPS-HPL seeks to protect.

Productive capacity is defined as the ability of land to support land-based primary production over the long term. The combination of physical limitations, fragmentation (both cadastral and internally), reverse sensitivity effects, urban encroachment and economic constraints significantly reduce the ability of the land to function as a productive and versatile land resource.

While the proposal would remove an area mapped as HPL, it is AgFirst's view that enabling urban development of the Site would not result in a significant loss of productive capacity for the Waipa District based on the following rationale:

- The area of HPL affected is a maximum of 37.4ha (81.4% of the site) under NZLRI mapping, which represents a very small proportion (0.04%) of the approximately 77,449 ha of HPL identified within the Waipa District.

Table 23: Summary of Land Use Classification within the Waipa District

Name	Area (ha)	LUC %	HPL Area (ha)	HPL %
LUC Class 1	8,971	6.1%	8,971	12%
LUC Class 2	47,197	32.1%	47,197	61%
LUC Class 3	21,281	14.5%	21,281	27%
LUC Class 4	24,137	16.4%		Not HPL
LUC Class 6	37,867	25.8%		Not HPL
LUC Class 7	4,289	2.9%		Not HPL
LUC Class 8	904	0.6%		Not HPL
Unclassified/other	2,359	1.6%		Not HPL
Total	147,000	100%	77,449	100%

- The presence of large areas organic peat soils within the Residential Site means that despite being LUC 2 class, the Waipa district plan does not recognise them as high class soil. Only 13.6 ha or 29.6% of the Site area is recognised as high class soils under the ODP.

- The land is already subject to permanent and long-term constraints that limit its sustainable productive capacity. Wetness limitations, fragile peat soils and reverse sensitivities created under horticultural use, due to proximity to the town boundary, restrict the Site from adopting more intensive uses.
- The Residential Site is not economically viable for land-based primary production when assessed under its highest and best reasonably practicable productive use, which in this case is pastoral dairy farming or dry stock and arable mixed farming systems.
- There is no significant economic loss to the region because of further fragmentation under residential development. The Residential Site is currently fragmented across three titles of 7.5ha, 21.2ha, and 17.3ha. Based on the consolidated site being assessed as economically unviable, it is reasonable to assume that these smaller parcels will not be viable. It is more likely the title will remain in underperforming rural residential land holdings.
- The Site is geographically constrained by the town boundary and the Southern Links designation. A maximum possible amalgamation of land would reach 101ha, however the high land values due to the proximity to town means that there is no rational economic driver to aggregate them for pastoral production.
- Urban development will not materially increase reverse sensitivity effects on surrounding land-based primary production activities, largely due to separation by the Hamilton Southern Links highway.

Consequently, the Residential Site does not make a meaningful contribution to the long-term productive capacity of the district, and its development would not materially affect the availability of productive land resources within the wider Waipā region.

6.6 Net Benefits from Urban Development Proposed on the Site

6.6.1 Environmental

As the productive capacity is constrained across the Residential Site, with fragmentation, wetness limitations and constraints due to the proximity of residential dwellings preventing higher productive land uses, the net change will be minimal. Key changes include:

○ **Reduced Nutrient Loss**

The current dairy farming land use high rates of nutrient loss to the environment, with nitrogen lost to groundwater, and phosphorus to waterways through overland flow in association with sediment. Such losses to ground and surface waters should reduce under urban development with reduced contamination due to the removal of stock and containment of stormwater and sewerage in municipal systems.

○ **Reduced Greenhouse Gas Emissions**

Dairy farming as a sector produces 25% of all greenhouse gasses that contribute to climate change through biogenic methane production from cows and nitrous oxide production from soils resulting from nitrogen fertiliser and effluent application.

○ **Urban development over rural**

Within the planned growth cell are wetland development plans and ecological restoration initiatives. Together with stormwater management measures and sediment detention and contaminant the change in land use to urban is likely to provide improved water quality, biodiversity and flood attenuation outcomes relative to the existing land use.

6.6.2 Social

In contrast to the current land use, which supports relatively little employment, the proposed development will provide substantial and enduring social benefits to the Waipā District and wider Hamilton urban area as outlined in further detail in the Economic Assessment by Insight Economics.

The proposal will also create a well-planned community incorporating open spaces, ecological restoration, neighbourhood services and supporting infrastructure as outlined in the Substantive Application. These features will provide benefits that extend beyond future residents and contribute to the wider social wellbeing of the surrounding community.

In addition, the development is expected to support significant employment during the construction phase and facilitate ongoing economic activity through future residential and commercial uses as addressed by the Economic Assessment.

When compared to the limited productive capacity, constrained economic viability and low employment generated by the existing land use, the social and community benefits arising from the proposed development are substantial.

6.6.3 Cultural

A Cultural Values and Effects Assessment (CVA) has been prepared for the Residential Site by Pouwhenua Consultancy Limited. The CVA identifies both potential adverse effects arising from the change in land use and opportunities for positive cultural outcomes, particularly through freshwater and ecological restoration, protection and enhancement of wetlands and waterways, integrated stormwater management, and recognition of cultural values within the design and development of the Residential Site.

The CVA concludes that positive cultural outcomes can be achieved where its recommendations are appropriately incorporated into the development, including continued involvement of mana whenua and integration of cultural values and maatauranga Maaori through detailed design, construction and long-term management. Accordingly, the CVA identifies the potential for the Residential Site to provide cultural and environmental benefits alongside the proposed change in land use.

6.6.4 Economic

The Residential Site will generate significant economic benefits when compared with the existing land use, as assessed by Insight Economics. Currently, the Residential Site supports land-based primary production as part of a dairy farming operation, with relatively limited employment and economic output attributable to the land. Insight Economics estimates that continuation of dairy farming could theoretically generate approximately \$4.5 million in GDP (NPV) over a 50-year period, together with approximately 65 FTE-years of employment.

In contrast, the Residential Site, comprising approximately 938 dwellings, together with a neighbourhood centre and supporting infrastructure, represents an estimated \$523 million of project investment. Under the baseline scenario assessed by Insight Economics, development of the Residential Site is estimated to generate approximately \$232 million in GDP, \$114 million in wages and salaries, and approximately 1,830 FTE-years of employment over the indicative nine-year development period. The neighbourhood centre is also expected to provide ongoing economic activity and employment once established.

Of particular relevance to Clause 3.10(1)(c), Insight Economics has assessed the economic benefits and costs associated with the Residential Site over a 50-year period. This assessment estimates total economic benefits of approximately \$274 million (NPV), compared with approximately \$8 million of quantified costs, including forgone rural production, loss of ecosystem service values, and option and bequest values associated with the loss of rural land. This results in an estimated net economic benefit of approximately \$266 million (NPV). Insight Economics therefore concludes that the economic benefits substantially outweigh the economic costs associated with the loss of the Residential Site from primary production.

These quantified benefits are complemented by broader benefits identified by Insight Economics, including increased housing supply and choice, improved housing affordability and land market competition, and support for coordinated infrastructure and well-functioning urban development. When considered alongside the demonstrated physical and economic constraints affecting the Residential Site, the economic assessment identifies substantial benefits relative to the continued use of the land for primary production.

6.6.5 Will the benefits outweigh the costs?

Overall, AgFirst considers that the benefits associated with the proposed urban development outweigh the loss of productive capacity associated with the Development Site. While the proposal will result in the loss of approximately 44.4 ha of mapped HPL, the significance of that loss is reduced by the substantial physical, economic and locational constraints affecting the Site, including wetness limitations, reduced land use versatility, fragmentation, reverse sensitivity effects and a demonstrated lack of economic viability for land-based primary production.

In contrast, the proposal will deliver significant economic, social and environmental benefits, including approximately 938 dwellings, employment opportunities, public open space, ecological restoration and infrastructure improvements. Given the limited productive capacity currently available from the Site and its inability to sustain economically viable land-based primary production, AgFirst considers that the benefits of the proposed urban development outweigh the productive benefits currently derived, or reasonably capable of being derived, from the Residential Site.

6.7 Reasonably Practicable Options to Overcome Constraints and Economic Viability

AgFirst has assessed all reasonably practicable options to demonstrate that the permanent or long-term constraints on economic viability cannot be addressed to retain productive capacity, as required under Clause 3.10(2).

6.7.1 Alternative options to retain productive capacity

This assessment includes addressing alternative forms of land-based primary production to overcome the permanent long-term constraints on economic viability. These alternative options include:

- Commercial Vegetable Production
- Horticulture

Landsystems has LUC mapped the Residential Site, this highly detailed report assists in understanding the physical limitations for land-based primary production. The highest and best land use assesses reasonably practicable options for alternative production systems and suitability of these operations based on physical characteristics of the land and requirements of the various productive systems.

The following section discusses the alternative forms of land-based primary production and whether they will overcome the constraints.

To overcome some of the fragmentation constraints due to property boundaries and small scale, AgFirst has undertaken economic analysis with the Residential Site operated as a contiguous block. This optimised approach does not overcome the

constraints on economic viability of the Residential Site, primarily due to the small scale of the Site and relatively homogenous land use capability limiting options to pastoral production. The findings are outlined in detail in Section 6.2.

6.7.2 Commercial Vegetable Production

As discussed in Section 5.5, the soil types across the majority of the Residential Site do not lend themselves to commercial vegetable production (**CVP**) land uses. AgFirst does not consider that CVP is a reasonably practicable option for the Development Site due to:

- There are greater regulatory restrictions for vegetable growers. Under the PC1 rules, the expansion of any CVP in this region will require a discretionary activity consent. Consent will only be granted if the land for which consent is sought must be located entirely within the designated sub-catchments and on LUC 1 and/or LUC 2 land. The entirety of the Site is located in the Middle Waikato Freshwater Management Unit, within Sub-Catchment 30 – Mangakotukutuku. Rule 3.11.4.8, Table 1, does not identify Sub-Catchment 30. Therefore, additional expansion of CVP on the Site is a non-complying activity under the PC1 requirements.
- Peat soils are not recognised commercial vegetable growing soils within the Waikato region.
- Water for irrigation of CVP crops is not readily available, with the total required (4,000m³/ha/annum) being approximately 23 times more than allowed for the current dairy farming land use (170m³/ha/annum).
- Land and soil with impeded drainage will limit both yield and suitability.
- The proximity to neighbouring receptors and Hamilton City would be an elevated risk of causing off-site nuisance dust, noise and spray drift effects.
- None of the properties would be sought after for established CVP operations, due to the land not being suitable, and distance from existing operations.
- There are no other nearby CVP operations that the Development Site could provide expansion opportunities for.

6.7.3 Horticulture

AgFirst does not consider high-value horticulture as a reasonably practicable option to overcome the economic and land constraints within the Residential Site due to:

- The LUC on the Residential Site does not have horticulture as a potential sustainable land use. Kiwifruit needs well-drained, aerated soils. Cold, windy and wet sites are particularly susceptible to PSA disease¹⁷.
- Horticulture requires well-drained soils with deep rooting depth, whereas the Development Site has poorly drained anaerobic soils and shallow rooting due to poor soil drainage and high-water table.
- Lack of available water is likely to be an insurmountable constraint with horticulture requiring 40-60m³/ha/day or 4,400m³/ha/year.

The development costs involved for establishing a horticulture operation, such as kiwifruit, are estimated as \$150,000 - \$400,000 per ha¹⁸ (including irrigation, plants, frost protection, trellis infrastructure and shelter) in addition to license fees, which have been up to \$700,000 per ha for Sun-Gold. Other horticulture options, such as pip fruit, are not suitable for the soil and topography limitations on the Residential Site¹⁹. It would be impractical to make this level of investment in the small areas that are in proximity to sensitive receptors.

With horticulture operations, there are issues with sprays and noise from frost protection. This location, next to Hamilton City and surrounding lifestyle blocks, has too many sensitive receptors that would restrict the operation or risk-adverse off-site effects.

Alternative greenfield developments with better soils, less fragmentation and significantly lower costs are more suitable for conversion into horticulture.

6.7.4 Improved land management strategies

AgFirst does not consider improved land management strategies a practicable option to overcome the economic and versatility constraints within the Residential Site due to the constraints of irreversible land fragmentation and small scale not being able to be overcome by land management strategies.

While small improvements would be feasible, e.g. in the dairy option analysis a stand-off facility was included, there are no alternative options that would be significant enough to lift profitability to an economic level.

6.7.5 Alternative production strategies

The constraints of soils, irreversible land fragmentation and small scale cannot be overcome by alternative production strategies. There are also no feasible or suitable options for alternative production strategies.

¹⁷ [Commercial kiwifruit growing NZ: statistics and guidance](#)

¹⁸ [kiwifruitFactsheet \(1\).pdf](#)

¹⁹ [Commercial apple and pear \(pipfruit\) growing NZ: statistics and guidance](#)

The highest and best production use across the Residential Site has been evaluated as intensive pastoral agriculture. There are no proven alternative cropping options or strategies that would improve on this sufficiently to lift profitability to an economic level.

6.7.6 Water efficiency or storage methods

While water efficiency or storage methods is a requirement for horticulture and CVP, the Residential Site is not suitable for conversion to these land uses. Therefore no feasibility study for water availability or storage has been undertaken. Water is required for stock drinking and dairy shed operation, however, this is assumed to be available due to the current land use as a dairy farm. Pastoral grazing does not require freshwater irrigation.

6.7.7 Boundary adjustments (including amalgamation)

This assessment has reviewed the contiguous HPL areas within and surrounding the Residential Site, which are suitable for primary production.

The Residential Site is constrained in terms of amalgamation opportunities to the north and east due to existing urban development. Opportunities for amalgamation exist to the west within the area annexed by the Hamilton Southern Links highway designation. S-Map shows that the soils on the adjoining sites are largely comparable to those of the Residential Site, meaning there is no option for diversified high value agricultural land use.

The increased scale provided by amalgamation is unlikely to lead to economic viability as these titles are characterised by elevated land values (see Table 24).

Table 24: Land Values Surrounding the Development Site

Property ID	Valuation #	Area	Land Value	Land Value \$/ha
61880	045581/052.02	59.978	4,800,000	80,029
9955	04581/054.00	29.2648	2,480,000	84,743
10011	04581/040.00	69.1027	5,390,000	78,000
Aggregate		158	12,670,000	80,015

Market research conducted by Colliers shows the average price of dairy farmland in the Waikato to be \$39,310/ha in 2025²⁰. Assuming this reflects the productive valuation, it can be argued the land values adjoining the Residential Site, which average \$80,000 per hectare are well in excess of a reasonable market price and therefore unlikely to be economic or attractive to a rational investor. This demonstrates that a core constraint for this block is land values that are disproportionate to the productive earning potential of the land.

²⁰ [Colliers | New Zealand Dairy Property Market Report 2025 | Colliers Rural Valuation](#)

Neither is there any guarantee that the landowner will sell or when they will sell. In the case of dairy farming this has significant impact on infrastructure requirements such as the size and location of the farm dairy, scale of subdivision, water systems etc.

Potential amalgamation for a more intensive land use is also unlikely to be possible under Waikato Regional Council's Regional Plan Change 1, which seeks to reduce loss of agricultural contaminants to waterways from intensive farming.

Increasing the scale of a pastoral farming system would not materially improve economic viability, nor could the constraint be reasonably overcome through improved management practices or alternative land-based primary production uses.

6.7.8 Lease arrangements

The economic viability assessment demonstrates that the areas available for land-based primary production within the Residential Site are unable to generate sufficient returns to provide a viable economic return for an owner operator and therefore it will be unable to provide a return on capital to the owner as well as a wage to management and a risk premium to a potential lessee.

Based on current and reasonably foreseeable productive returns, leasing does not overcome the permanent or long-term constraints affecting the Residential Site.

6.7.9 Summary

The Residential Site is constrained by a combination of poor drainage, wetness limitations, land fragmentation, limited versatility due to regulatory constraints, reverse sensitivity effects, elevated land values and rates, and proximity to Hamilton City.

AgFirst has assessed all reasonably practicable options available to overcome the permanent and long-term constraints affecting the Residential Site, including alternative land-based primary production systems, improved land management strategies, alternative production methods, water storage and efficiency measures, boundary adjustments and amalgamation, and lease arrangements.

While minor productivity gains may be achievable through management interventions, there are no reasonably practicable options that would enable the Site to achieve a level of profitability sufficient to overcome these constraints.

Accordingly, AgFirst considers that the constraints affecting the Residential Site are permanent or long-term in nature and that the Site cannot sustainably support a more intensive to provide an economically viable form of land-based primary production.

6.8 Evaluation of Reasonably Practicable Options

With respect to Clause 3.10(3)(a): AgFirst has assessed a range of reasonably practicable options to overcome the permanent and long-term constraints affecting the Residential Site. These options included alternative forms of land-based primary production, improved land management practices, alternative production systems, water management measures, boundary adjustments and amalgamations, and lease arrangements. Consistent with Clause 3.10(3)(a), these options have been assessed independently of any economic benefit that may arise from using the land for purposes other than land-based primary production.

In considering whether an option is reasonably practicable, AgFirst has applied a real-world assessment of what a farming business would reasonably have to undertake. The assessment demonstrates that none of the identified options are capable of overcoming the physical and economic constraints affecting the Residential Site.

While amalgamation could theoretically increase the landholding area, the Residential Site would remain constrained by wetness limitations, reverse sensitivity effects, fragmented ownership patterns, elevated land values and proximity to Hamilton City. Furthermore, the economic viability assessment demonstrates that neither the individual properties nor the Site as a whole can sustain economically viable land-based primary production, even when assessed under their highest and best productive use.

Accordingly, AgFirst concludes that there are no reasonably practicable options available to overcome the identified constraints.

With respect to Clause 3.10(3)(b): AgFirst has considered the impact that the loss of HPL would have on the landholding in which the HPL occurs. The assessment concludes that the primary constraints affecting the Residential Site are long-term and irreversible, including wetness and drainage limitations, fragmented ownership, urban encroachment, reverse sensitivity effects and economic viability.

While the proposal will result in the loss and fragmentation of approximately 44.4 ha of mapped HPL under NZLRI, the significance of this loss is reduced by the constrained nature of the land resource and its limited productive capacity. The Site is unable to sustain an economically viable land-based primary production, and the proposed development will not materially affect the productive capacity of any remaining HPL areas.

With respect to Clause 3.10(2)(c): AgFirst has considered the future productive potential of the Residential Site without being limited by its current or historical use. The assessment concludes that the highest and best reasonably practicable land-based primary production use of the Residential Site is pastoral grazing and dairy farming, with limited opportunities for cropping on the better-drained areas.

However, even under this scenario, the Residential Site remains constrained by wetness, drainage limitations, reduced land use versatility, fragmented landholdings and elevated holding costs. There are no additional reasonably practicable land management strategies capable of materially improving productive capacity or economic viability. Accordingly, AgFirst concludes that the Residential Site is subject to permanent and long-term constraints that cannot reasonably be overcome.

7 Summary

Land-based primary production across the Residential Site is currently limited intensive pastoral grazing under dairy farming, dairy heifer grazing or maize production as part of a dairy grazing rotation.

Having regard to the physical characteristics of the land, soil limitations and economic viability, AgFirst considers that dairy farming represents the highest, best, and most reasonably practicable land-based primary production use of the Site.

Overall, while a reasonable proportion of the Residential Site is classified as HPL under the NPS-HPL, the ability of the land to support economically viable and versatile land-based primary production is substantially constrained by a combination of permanent and long-term factors, including:

- Non-reversible land fragmentation of the Residential Site and surrounding land uses
 - Adjacent to Hamilton City and sensitive receptors.
 - Fragmentation throughout the Residential Site is compounded by internal fragmentation through extensive drainage networks.
- Soil conditions
 - Large areas of imperfectly drained soils that limit the productive capacity and versatility.
 - Drains and non-productive areas.
- Lack of expansion or alternative forms of land-based primary production options
 - PC1 regulatory restrictions for converting the drystock land into dairy, thus being stranded with an under sized dairy farm.
 - No opportunity for improved or alternative land management and production strategies.
 - Physical boundaries and amalgamation opportunities.
 - No close by intensive primary production systems to leverage from.

Given the constraints identified above, AgFirst believes that the proposed urban use of the Residential Site meets the NPS-HPL exemption tests in Clause 3.10 and therefore can be subdivided, used or developed for urban activities and does not need to be preserved for productive purposes.

In particular:

- Based on the assessment of the Residential Site, there are permanent and long-term constraints on the land that mean the use of the highly productive land for land-based primary production is not able to be economically viable for at least 30 years.

- Removing the Residential Site from productive use will cause no significant loss of highly productive land or productive capacity in the district, due to the long-term constraints outlined above and throughout this assessment.
- Due to the existing fragmentation of the Residential Site and surrounding area, the urban use of the Residential Site will not cause significant further fragmentation of large and geographically cohesive, highly productive land.
- The assessment has considered all reasonably practicable options that would retain the productive capacity of the highly productive land.

Due to the physical limitations of the Residential Site, together with increasing input costs and elevated land values, the economic returns available from land-based primary production are expected to continue to decline relative to holding and operating costs.

While there may be limited opportunities to increase productive output, these do not materially overcome the identified constraints or improve economic viability.

AgFirst concludes that the Residential Site will not be economically viable for land-based primary production over the next 30 years. Furthermore, there are no reasonably practicable options, including alternative land uses, land management strategies, boundary adjustments or amalgamations, that would materially improve the productive capacity or economic performance of the Residential Site.

From a productive land-use perspective, the Residential Site is better suited to urban development than continued agricultural use. Given its proximity to Hamilton City, the existing pattern of surrounding urban development, and the significant physical and economic constraints affecting the land resource, development of the Site represents a more appropriate outcome than the loss of less constrained and more productive greenfield land elsewhere within the Waipā District.

Appendix A: Qualifications and Experience

Jeremy Hunt

- Director | Agribusiness & Environmental Consultant
- BSc (Environmental Science)
- Member – New Zealand Institute of Rural Professionals (NZIRP)

Professional Profile

Jeremy Hunt is a Director and Agribusiness and Environmental Consultant with AgFirst Waikato, specialising in rural land resource assessment, agricultural productivity, farm systems and agricultural economic analysis.

Jeremy regularly undertakes assessments of the productive capacity and economic viability of rural land to support resource consent, subdivision and land use change applications. This includes assessments under the NPS-HPL, where he evaluates soil and land capability, property scale and configuration, topography, drainage, surrounding land use and other factors to identify permanent or long-term constraints affecting land-based primary production.

Drawing on his agricultural and farm systems expertise, Jeremy identifies production systems that are realistically suited to the land resource and practicable within its physical and operational constraints. He then applies an economic lens to assess the performance of those systems and determine whether the land is capable of supporting an economically viable primary production enterprise.

Jeremy has experience across pastoral, dairy and dairy support, arable and forage cropping, and horticultural systems. He also undertakes soil and land resource assessments, including interpretation of NZLRI LUC mapping, S-Map soil information and site-specific land resource information, supported by GIS and spatial analysis.

Jeremy has extensive experience providing technical advice and evidence through statutory planning processes, including numerous Council hearings and Environment Court proceedings. More recently, he has prepared a range of technical assessments for substantive applications under the Fast-track Approvals Act, including assessments of productive land resources, agricultural productivity and economic viability.

His broader work includes farm system analysis, nutrient management, farm environment planning, wastewater and effluent management, and technical assessments supporting resource consent and planning processes.

Prior to joining AgFirst in 2018, Jeremy worked for NIWA and subsequently in environmental consulting and project management roles with URS and AECOM. He also spent two years operating a System 3–4 dairy farm as a contract milker, providing practical experience in the operation and management of a commercial farming enterprise. Jeremy became a Director of AgFirst Waikato in 2020.

Areas of Expertise

- NPS-HPL productive capacity and economic viability assessments
- Rural productivity and land use assessments
- Agricultural and horticultural enterprise economic analysis
- Farm systems analysis
- Land Use Capability and soil resource assessments
- Assessment of constraints affecting land-based primary production
- GIS and spatial land resource analysis
- Resource consent and AEE technical support
- Technical evidence, Council hearings, Environment Court and Fast-track processes

Qualifications

- Bachelor of Environmental Science – University of Canterbury
- Advanced Certificate in Sustainable Nutrient Management – Massey University
- Advanced Soil Conservation Course – Massey University
- Land Use Capability Certification – Simon Stokes Consulting
- NZ Certificate in Agriculture (Dairy Farming), Level 4 – DairyNZ
- Project Management Certification – AECOM
- Certified Dairy Effluent Warrant of Fitness Assessor – DairyNZ

Geoff Taylor

- Director | Agribusiness Consultant | Project Manager
- BAgSc (Hons), MBA (Dist)
- Member – New Zealand Institute of Rural Professionals (NZIRP)

Professional Profile

Geoff Taylor is an experienced food and fibre sector leader with more than 30 years' experience spanning agribusiness consulting, farming, research and development, strategy, investment management, and governance. He has a proven track record of working with industry leaders, government agencies, research organisations, and producers to develop practical, evidence-based solutions that deliver measurable outcomes.

He is working with AgFirst as an agribusiness consultant focussed on building profitable, productive and sustainable agricultural systems that deliver benefits for the business owner and New Zealand Inc. Geoff has experience in farm system analysis, nutrient management, and farm environment planning and applies this expertise across pastoral, dairy, dairy support, forage cropping, and vegetable production systems.

Prior to joining with AgFirst in 2025 Geoff worked for DairyNZ in research and development project and management roles, including strategy development and evaluation. He also spent four years as a variable order sharemilker. Geoff has also held a number of directorship roles in industry related organisations including the Southern Dairy Hub Research and Demonstration Farm and Muka Tangata, the Food and Fibre Workforce Development Council.

Areas of Expertise

- Farm systems analysis and optimisation
- Economic analysis
- Farm Planning

Qualifications

- MBA (Distinction) – University of Waikato
- Bachelor of Agricultural Science (Hons) – Massey University
- Advanced Certificate in Sustainable Nutrient Management – Massey University
- Project Management Certification – DairyNZ

The "OUR WHAT" graphic is a large circle with a black outline. The text "OUR WHAT" is in a large, bold, black sans-serif font. To the right of the text, inside the circle, is a smaller line of text: "Leading a smarter, sustainable, high performing primary sector".

OUR WHAT

Leading a smarter, sustainable, high performing primary sector

The "OUR HOW" graphic is a large circle with a dark blue outline. The text "OUR HOW" is in a large, bold, dark blue sans-serif font. To the right of the text, inside the circle, is a smaller line of text: "Using the best people and greatest ideas for the benefit of our clients".

OUR HOW

Using the best people and greatest ideas for the benefit of our clients

The "OUR WHY" graphic is a large circle with a green outline. The text "OUR WHY" is in a large, bold, green sans-serif font. To the right of the text, inside the circle, is a smaller line of text: "We believe in creating a vibrant future for the primary sector".

OUR WHY

We believe in creating a vibrant future for the primary sector



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