Appendix 13 – Soil and LUC Classification Assessment

Soil and Land Use Capability classification assessment

2025 Ohaupo Road, Te Awamutu 3800.

Prepared for:	Te Awamutu Developments Limited (TADL)
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Status:	FINAL
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Contents

Introductory statement 3
Code of Conduct 3
1 Introduction 4
2 Project description 4
3 LUC background 5
4 Waipa District Plan definition of high class soil 6
5 National Policy Statement for Highly Productive Land (NPS-HPL) 7
6 Modified soil and non-productive land 8
7 Soils and LUC classification according to NZLRI information (1:50,000 scale) 9
8 S-Map Online soil map information 10
9 NPS-HPL assessment based on regional map information 12
10 Regional scale map information limitations 14
11 On-site (property scale) soil and LUC classification assessment 14
12 Soil and LUC classification 14
13 Waipa District Plan defined high class soil 16
14 LUC limitations and productive potential 18
14.1 High class soil 18
14.2 Soil wetness 18
14.3 Slope and erosion 18
14.4 Non-productive land 18
15 Summary 18
Appendix 1: Overall Proposed Site Plan. 20
Appendix 2: Enlarged map images. 21

Introductory statement

My full name is Reece Blackburn Hill and I hold the position of Director/Principal Consultant at BeatsonHill Limited trading as Landsystems (**Landsystems**), an independent soil consultancy based in Hamilton. I have been full time as a Soil Consultant at Landsystems since March 2018, with 19 years' previous experience as a Soil Scientist at Waikato Regional Council, and prior to that three years mapping forest soils in Tasmania.

I hold a Doctor of Philosophy in Soil Science from Lincoln University (2000), a Master of Applied Science in Soil Science from Lincoln University (1994), and a Bachelor of Science with a double major in Biological Sciences and Earth Sciences from the University of Waikato (1988).

I specialise in soil characterisation, soil mapping, land use capability assessment, and regional soil policy. I have undertaken property-scale Land Use Capability assessments for resource consent applications across the Waikato region and other regions in New Zealand since March 2018.

I am a past President of the New Zealand Society of Soil Science (2014–2016) and a current member of the New Zealand Society of Soil Science, the New Zealand Association of Resource Management, and the New Zealand Institute of Agricultural and Horticultural Science.

Code of Conduct

I am familiar with the Code of Conduct for Expert Witnesses (Environment Court Practice Note 2023) and although I note this is a Fast Track Panel process, I agree to comply with this code. The information I will present is within my area of expertise, except where I state that I am relying on information provided by another party. I have not knowingly omitted facts or information that might alter or detract from opinions I express.

1 Introduction

A soil and Land Use Capability (LUC) classification assessment of 2025 Ohaupo Road, Te Awamutu 3800 (Lot 1 DPS 36696 and Part Lot 1 DP 35654), totalling 25.78 ha (~25.8 ha) as shown in **Figure 1**, was undertaken in order to comply with rules of the Waipa District Plan, in relation to the protection of high class soils and the National Policy Statement for Highly Productive Land (NPS-HPL). In this report the land subject to assessment is referred to as the Site; the same area is labelled the assessment area in the figures and tables, and the two terms are equivalent.

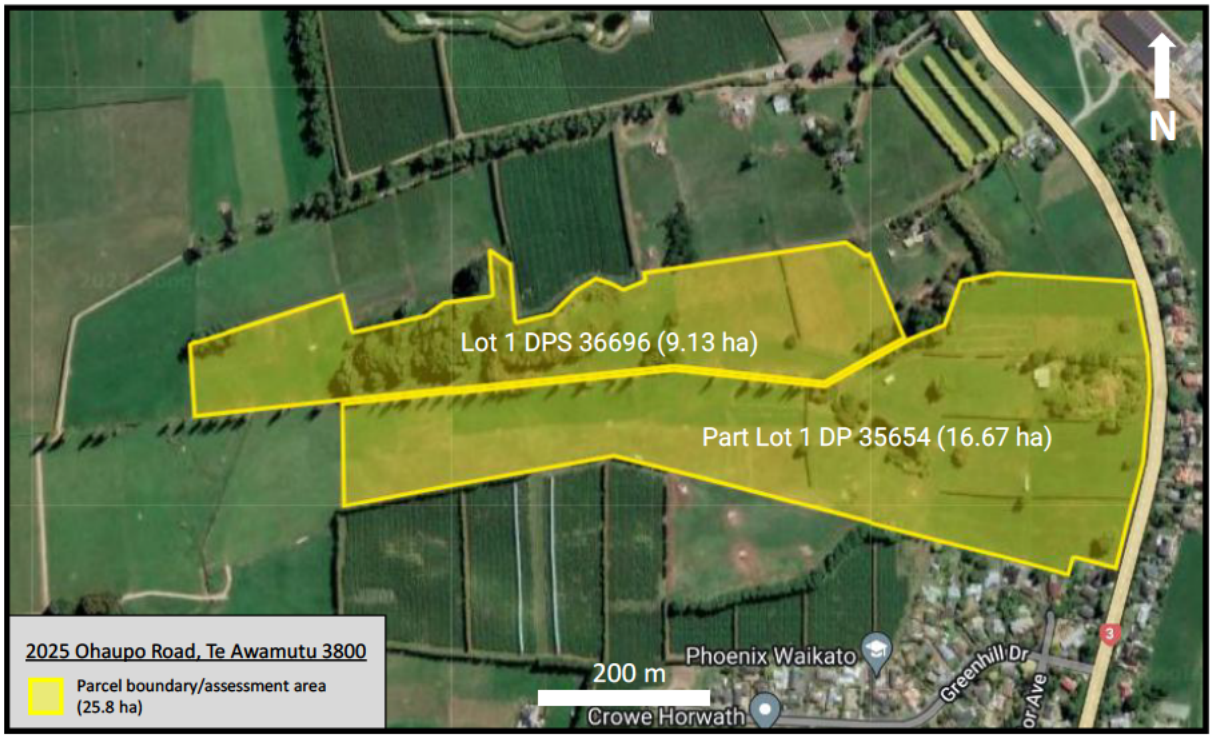


***Figure 1**. Assessment area, 2025 Ohaupo Road, Te Awamutu 3800.*

This report has been prepared on the basis of the NPS-HPL as amended in December 2025 (in force from 15 January 2026), which excludes LUC Class 3 land from the interim highly productive land definition where the land is subject to a resource consent application for subdivision, use or development for any activity other than rural lifestyle (clause 3.5(7)(b)(iii)), and which removes the urban rezoning restrictions in clauses 3.6(1) to (4) for LUC Class 3 land (clause 3.6(6)).

2 Project description

The Project is to enable the development of a community for senior living in Te Awamutu, providing approximately 414 dwellings/units (including single-storey houses, duplex units and apartments), and a 100-bed care facility. The development will also feature communal facilities and a neighbourhood centre, riparian planting, wetland restoration, three waters services infrastructure, and transport infrastructure. The project is designed to cater specifically to an ageing population, addressing a critical need for retirement housing and care capacity.

The development will proceed in alpha-numeric order as set out on the **attached plan**[1], notwithstanding that some downstream infrastructure that lies within latter stages will need to be constructed at the time that the earlier stages require it.

General construction timing is expected to be as follows:

- Stages 1A and 1B are programmed to commence earthworks and civils in Q1–Q2 2027.
- Subsequent stages are programmed at approximately nine-month intervals between stage commencements.

3 LUC background

LUC classification is the common method for assessing land in New Zealand; it uses the Land Use Capability System, which is part of the New Zealand Land Resource Inventory (NZLRI) as produced by the Water and Soil Division of the Ministry of Works, for the National Water and Soil Conservation Organization during the 1970s. In 2009 the 3rd Edition of the LUC Survey Handbook[2] was published and has been used for this assessment. The LUC uses a systematic arrangement of different kinds of land according to those properties that determine its capacity for permanent sustained production, where the word "capability" is used in the sense of "suitability for productive use" after taking into account the physical limitations the land may have.

The LUC classification is specifically designed to provide an index of versatility. There are eight land use capability classes (**Figure 2**) arranged in order of increasing degree of limitation or hazard to use; and a decreasing order of use, from Class 1 to 8.

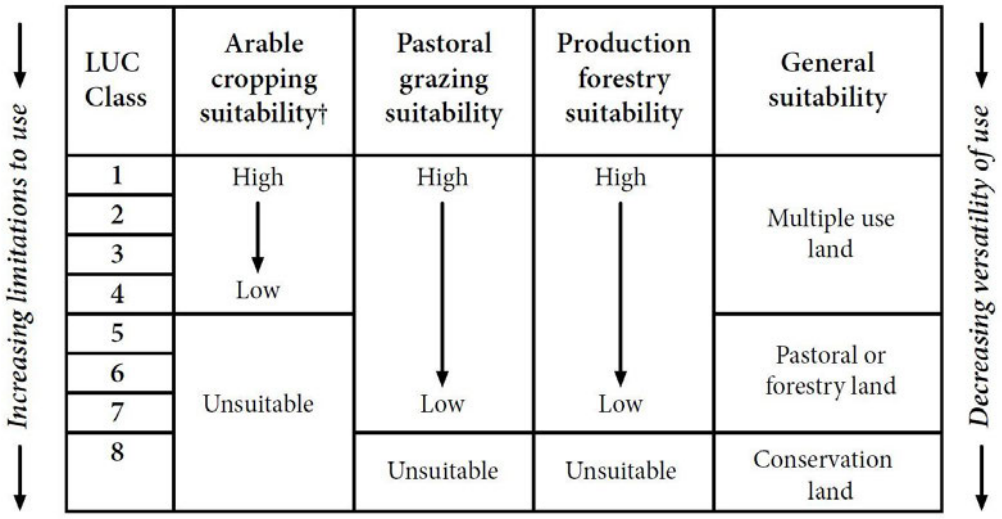


***Figure 2**. Increasing limitations to use and decreasing versatility of use from LUC Class 1-8.*

[1] Appendix 1: Overall Proposed Site Plan.

[2] Lynn IH, Manderson AK, Page MJ, Harmsworth GR, Eyles GO, Douglas GB, Mackay AD, Newsome PJF 2009. Land Use Capability survey handbook – a New Zealand handbook for the classification of land. AgResearch Hamilton; Manaaki Whenua Lincoln; GNS Science Lower Hutt, New Zealand.

Within each LUC Class the land is assigned a subclass according to the kind of limitation (e = Erodibility, w = Wetness, s = Soil limitations within the rooting zone, c = Climate). At the most detailed level LUC groups together those inventory units which respond similarly to the same management and which are suitable for the same kinds of crops, pasture, or forest species with the same potential yield and which require the application of the same conservation measures.

The LUC worksheets were compiled from all relevant databases of land resource documents available at the time, consequently some sheets suffered from a lack of information that only detailed soil and geological surveys could have provided. Therefore, there are **scale limitations**, which need to be considered, especially when interpretation is required at the individual property scale.

The LUC units displayed on the 1970s worksheets remain reasonably robust but are subject to change. For example, the second edition (1993) Northland region worksheets were mapped at the more detailed scale of 1:50 000, replacing the earlier first edition 1:63,360 maps. In the first edition, 69 LUC units were defined compared with 91 LUC units in the second edition; about 60 of the first edition classification units changed.

The average area for a map unit is 125 ha, however, at the 1:50 000 scale of mapping it is theoretically possible to delineate an unhooked inventory map unit (no vinculum) area of 60 ha (60 ha = 600 m by 1000 m) provided the geology, soil, vegetation, erosion and slope are uniform.

The **purpose of this background information** is to illustrate and emphasise that the NZLRI information provides excellent physical base data for planners (a planning tool) but is not fit for purpose as a plan (map) unless undertaken at the correct scale. This assessment fulfils that purpose.

4 Waipa District Plan definition of high class soil

The Waipa District Plan defines 'high class soil' as:

> *"… 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."*

The Waipa District Plan definition of high class soil relies on the Land Use Capability (LUC) classification and, for LUC Class 3e1 and 3e5, the New Zealand Soil Classification (NZSC).

Both the LUC classification and the NZSC can be applied at multiple scales. The Waipa District Council GIS viewer displays a high class soil layer derived from the regional scale (1:50,000) NZLRI mapping, which provides the default regional position. Property scale on-site mapping by a suitably qualified person, using the LUC Handbook and NZSC criteria, provides accurate identification of high class soils at the scale relevant to a specific site. This report presents the Waipa District Plan high class soil assessment first at the regional (NZLRI) scale in Section 7, and then refined at property scale from the on-site assessment in Section 13.

5 National Policy Statement for Highly Productive Land (NPS-HPL)

The National Policy Statement for Highly Productive Land 2022 (NPS-HPL) came into force on the 17th of October 2022. The NPS-HPL was amended in December 2025, with amendments taking effect from 15 January 2026 (Ministry for the Environment, 2025).

'Highly productive land' is defined as:

> *"…land that has been mapped in accordance with clause 3.4 and is included in an operative regional policy statement as required by clause 3.5 (but see clause 3.5(7) for what is treated as highly productive land before the maps are included in an operative regional policy statement and clause 3.5(6) for when land is rezoned and therefore ceases to be highly productive land)."*

Landsystems understands that NPS-HPL clause 3.5(7) applies because maps produced in accordance with clause 3.4 have not yet been included in an operative regional policy statement as required by clause 3.5. Under the December 2025 amendments, the deadline for regional councils to undertake this mapping was extended to 31 December 2027 (clause 4.1(2)).[3] Clause 3.5(7) says:

> *(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.*

The NPS-HPL includes the following definition of LUC 1, 2, or 3 land:

> "*LUC 1, 2, or 3 land means land identified as Land Use Capability Class 1, 2, or 3, as mapped by the New Zealand Land Resource Inventory, or by any more detailed mapping in place at the commencement date that uses the Land Use Capability classification."*

The December 2025 amendments to the NPS-HPL (which came into force on 15 January 2026) added two specific provisions affecting how LUC Class 3 land is treated under the NPS-HPL.

1. Under clause 3.5(7)(b)(iii) (new transitional provision), LUC 3 land is excluded from the interim highly productive land definition where it is subject to a resource consent application for subdivision, use or development for any activity other than rural

[3] "…regional councils are not required to undertake mapping of highly productive land in regional policy statements as required under clause 3.5 prior to 31 December 2027."

lifestyle, where the consent has been lodged on or after the NPS-HPL commencement date of 17 October 2022.

2. Under clause 3.6(6) (new exemption), the restrictions on urban rezoning of highly productive land in clauses 3.6(1)–(4) do not apply to urban rezoning of LUC 3 land.

The clause 3.5(7) amendments were applied in the Arataki decision (FTAA-2506-1083, February 2026). The Expert Consenting Panel recorded at paragraphs 268 to 269 that LUC 3 land subject to a non-rural-lifestyle subdivision, use or development consent is now exempt from the highly productive land definition, and that the Arataki Site (a 171-lot residential subdivision at Havelock North on LUC 3 land) accordingly "clearly falls outside" the definition and was "not subject to the requirements of the NPS-HPL".

The amended definition of LUC 1, 2, or 3 land sets two sources for identifying LUC status: the New Zealand Land Resource Inventory, or any more detailed mapping in place at the commencement date (17 October 2022). The Landsystems on-site LUC assessment for the Site was undertaken on 20 October 2022, three days after the commencement date. On a strict reading of the amended definition the on-site mapping is not "in place at the commencement date" and so does not qualify as more detailed mapping for the purposes of clause 3.5(7). The NZLRI accordingly remains the operative LUC mapping for the threshold highly productive land question, and the on-site mapping cannot be used to determine highly productive land status under the NPS-HPL for this Site.

The on-site LUC mapping is presented later in this report. It supports the Waipa District Plan high class soil assessment, which uses a different definition to the NPS-HPL. The on-site LUC assessment can also be used to inform a more accurate assessment of the assessment area's productive capacity, if a detailed land productivity assessment is required.

Applying the amended NPS-HPL to the Site: the proposed activity is a senior living development under the Retirement Villages Act 2003, which is an activity other than rural lifestyle. Clause 3.5(7)(b)(iii) therefore excludes the LUC Class 3 land from the interim highly productive land definition once the consent application is lodged. The interim highly productive land for the Site is therefore confined to LUC Class 1 and 2 land. The NPS-HPL assessment is set out in Section 9.

6 Modified soil and non-productive land

For an accurate assessment of LUC classification for a property, the assessment should be based on the current condition of the area (i.e. mapped in current state). This is important because some land management practices (e.g. the placement of tracks, excavation of drains, and general earthworks) result in irreversible changes to the soil (i.e. changes other than those that can be remediated by management practices and return the soil to its intrinsic state). These areas are referred to as non-productive land. Examples of non-productive land include native vegetation, wetlands and riparian areas, tracks, and buildings and curtilage.

Non-productive land can include areas where the soil has been modified by truncation, placement of fill or extensive mixing. Where these areas do not resemble a functioning soil, the areas are not considered to be available for primary production (i.e. they are non-productive land). Where these areas do resemble a functioning soil (such as the

reinstatement of a soil profile following gravel extraction) the land can be assigned a LUC classification.

For this assessment the productive area of the Site (to which the LUC classification can be applied) is the assessment area excluding non-productive land.

7 Soils and LUC classification according to NZLRI information (1:50,000 scale)

The distribution of soils and LUC units according to NZLRI information is shown in **Figure 3** (a larger map is provided in **Appendix 2**). **Table 1** summarises the soils and LUC units identified for the assessment area.

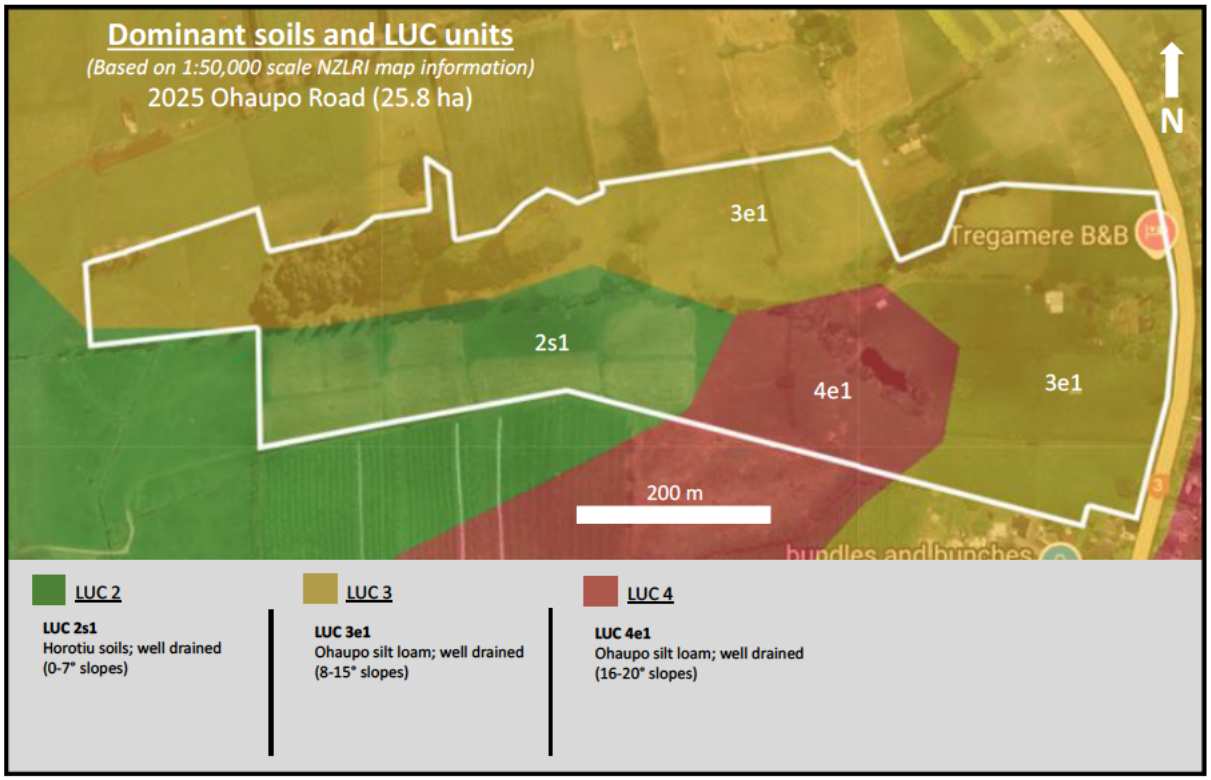


Figure 3. *The distribution of soils and LUC units according to (1:50,000 scale) NZLRI information for the assessment area, 2025 Ohaupo Road.*

Table 1. *NZLRI soils and LUC units identified for the assessment area, 2025 Ohaupo Road.*

Soil type	Parent material	Slope class	Soil drainage	LUC Unit	Area (ha and %)
Horotiu soils	Hinuera Formation alluvium	A+B (0-7°)	Well drained	2s1	5.7 (22%)
Ohaupo silt loam	Younger ashes over 'Hamilton ashes'	C (8-15°)	Well drained	3e1	16.4 (64%)
Ohaupo silt loam	Younger ashes over 'Hamilton ashes'	D (16-20°)	Well drained	4e1	3.7 (14%)

Based on the available NZLRI map information[4] the soils for the assessment area are Horotiu sandy loam or silt loam (Horotiu soils) on flat to undulating slopes with a LUC classification of 2s1, Ohaupo silt loam on rolling slopes with a LUC classification of LUC 3e1, and Ohaupo silt loam on strongly rolling slopes with a LUC classification of LUC 4e1.

Applying the high class soil definition in the Waipa District Plan, LUC 2s1 and 3e1 are high class soil and LUC 4e1 is not high class soil. The total estimated area of high class soil in the assessment area is 22.1 ha (86%). The NPS-HPL assessment based on this NZLRI mapping is set out in Section 9.

8 S-Map Online soil map information

S-Map soil map information is sourced from S-Map Online[5]. S-Map uses soil siblings to differentiate different soils at the most detailed level. S-Map Soil Order, soil sibling and soil drainage distributions for the assessment area are shown in **Figure 4**.

[4] https://lris.scinfo.org.nz/layer/48076-nzlri-land-use-capability-2021/; https://lris.scinfo.org.nz/layer/48136-fsl-north-island-all-attributes/
[5] https://smap.landcareresearch.co.nz/

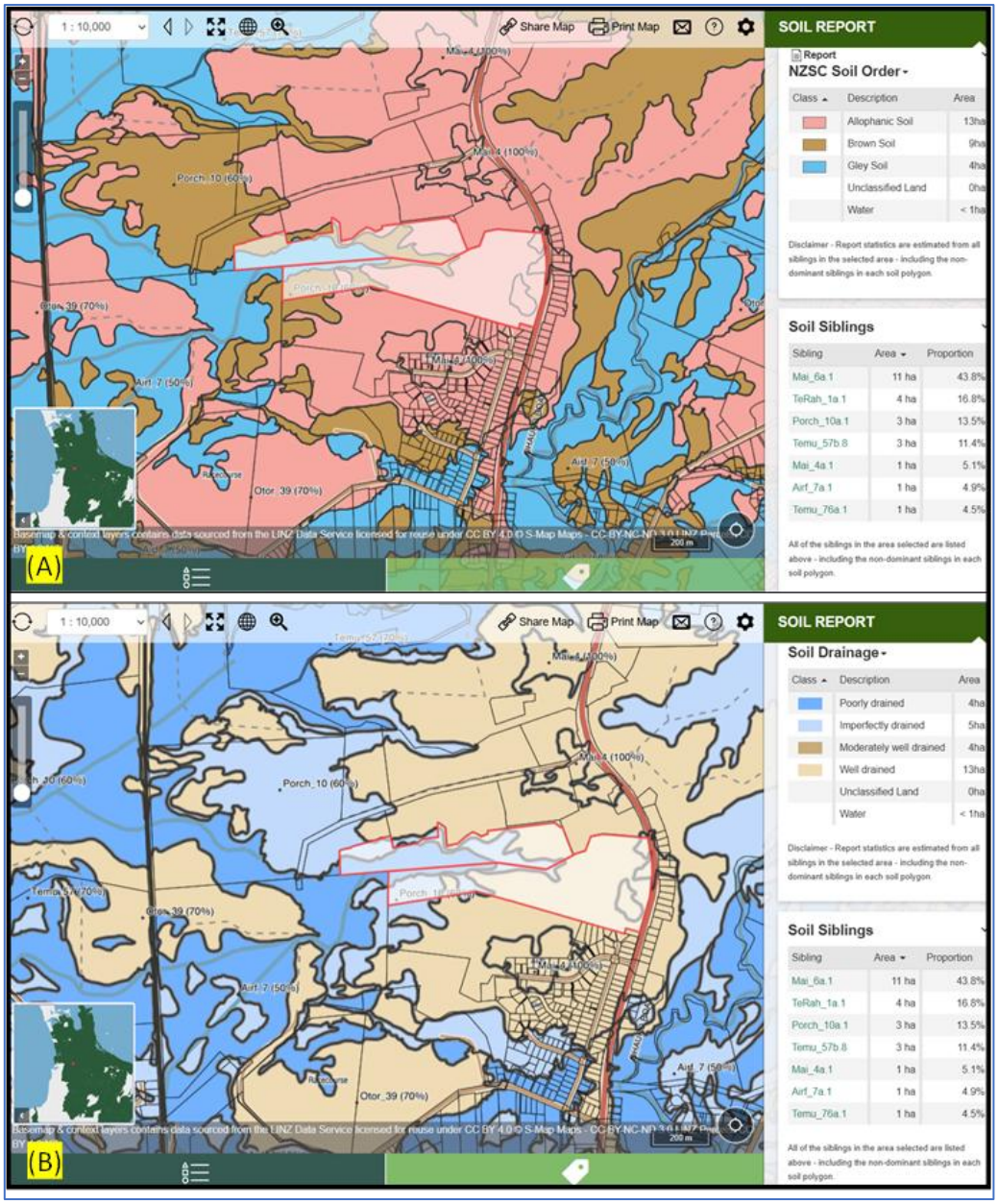


***Figure 4**. A) S-Map soil (Soil Order and soil sibling) distributions; and B) S-Map soil drainage characteristics for the assessment area, 2025 Ohaupo Road.*

S-Map Online identified the soils in the assessment area as Allophanic Soils (13 ha), Brown Soils (9 ha) and Gley Soils (4 ha) (**Figure 4A**). Based on S-Map Online map information, well drained soils occupy 13 ha, moderately well drained soils 4 ha, imperfectly drained soils 5 ha, and poorly drained soils 4 ha (**Figure 4B**).

Table 2 provides a summary of the S-Map soil sibling characteristics, including S-Map Family, Soil Sibling, correlating Soil Series (if available), New Zealand Soil Classification (NZSC) Soil Order, depth class, profile texture, drainage class, and area proportions, for the assessment

area. Further details for soil siblings is provided in S-Map Online factsheets sourced from the S-Map Online website[6].

***Table 2**. S-Map soil sibling characteristics for the assessment area, 2025 Ohaupo Road.*

S-Map Family	S-Map Sibling	Correlated Soil Series	NZSC (Soil Order)	Soil depth	Texture profile	Soil drainage	Proportion (%)
Mairoa	Mairoa_6a.1	Ohaupo	Allophanic (LOT)	Deep (> 1m)	Clay	Well drained	43.8
TeRahu	TeRahu_1a.1	Ohaupo	Brown (BOT)	Deep (> 1m)	Clay	Moderately well drained	16.8
Porchester	Porchester_10a.1	Rotokauri	Brown (BOM)	Deep (> 1m)	Clay	Imperfectly drained	13.5
Temuka	Temuka_57b.8	Mangapiko	Gley (GOT)	Deep (> 1m)	Clay	Poorly drained	11.4
Mairoa	Mairoa_6a.1	Te Rauamoa	Allophanic (LOT)	Deep (> 1m)	Clay	Well drained	5.1
Airfield	Airfield_7a.1	Whatawhata	Brown (BOM)	Deep (> 1m)	Clay	Imperfectly drained	4.9
Temuka	Temuka_76a.1	Rotokauri	Gley (GOT)	Deep (> 1m)	Clay	Poorly drained	4.5

The S-Map soil map information provides a more spatially detailed representation of the soils in the assessment area than the NZLRI 1:50,000 soil map information. However, because of the absence of land characteristics information (e.g. slope) for the soil map units, there is currently no direct correlation with LUC units. Some, but not all, of the S-Map soil map units correlate to Soil Series identified by the NZLRI map information. In this report the DSIR's soil nomenclature (e.g. soil type and series names) is retained in preference to the S-Map soil sibling nomenclature to allow for direct correlation of the soils with the LUC units provided by the NZLRI map information and associated NZLRI Extended Legends.

9 NPS-HPL assessment based on regional map information

As explained in Section 5, the operative LUC mapping for the NPS-HPL assessment at this Site is the NZLRI. The Landsystems on-site assessment was undertaken on 20 October 2022, three days after the NPS-HPL commencement date of 17 October 2022. It is therefore not more detailed mapping in place at the commencement date, and does not replace the NZLRI for this assessment.

The proposed senior living development under the Retirement Villages Act 2003 is an activity other than rural lifestyle. Under clause 3.5(7)(b)(iii) of the amended NPS-HPL, LUC Class 3 land subject to a resource consent application for such an activity is not highly productive land. The 16.4 ha of LUC 3e1 land mapped by the NZLRI is therefore not highly productive land for this application.

The LUC 4e1 land (3.7 ha) is also not highly productive land, because it is not LUC 1, 2 or 3 land. The highly productive land at the Site on the NZLRI mapping is therefore confined to the LUC 2s1 land, which is 5.7 ha, or 22% of the assessment area.

[6] https://smap.landcareresearch.co.nz/maps-and-tools/app/

Area estimates of NPS-HPL highly productive land based on the regional NZLRI mapping are provided for the assessment area in **Table 3**.

Table 3. *The area estimates of NPS-HPL highly productive land based on the regional NZLRI mapping for the assessment area, 2025 Ohaupo Road.*

LUC unit	NZLRI soil type	NPS-HPL status	Area (ha)	Area (%)
NPS-HPL highly productive land				
2s1	Horotiu soils	HPL	5.7	22%
Total			5.7	22%
Not NPS-HPL highly productive land				
3e1	Ohaupo silt loam	Not HPL (LUC 3 land excluded under cl 3.5(7)(b)(iii))	16.4	64%
4e1	Ohaupo silt loam	Not HPL (not LUC 1, 2 or 3 land)	3.7	14%
Total			20.1	78%

[1] Rounded to 1 decimal place; [2] rounded to whole number.

The distribution of NPS-HPL highly productive land based on the regional NZLRI mapping is shown in **Figure 5** (a larger map is provided in **Appendix 2**).

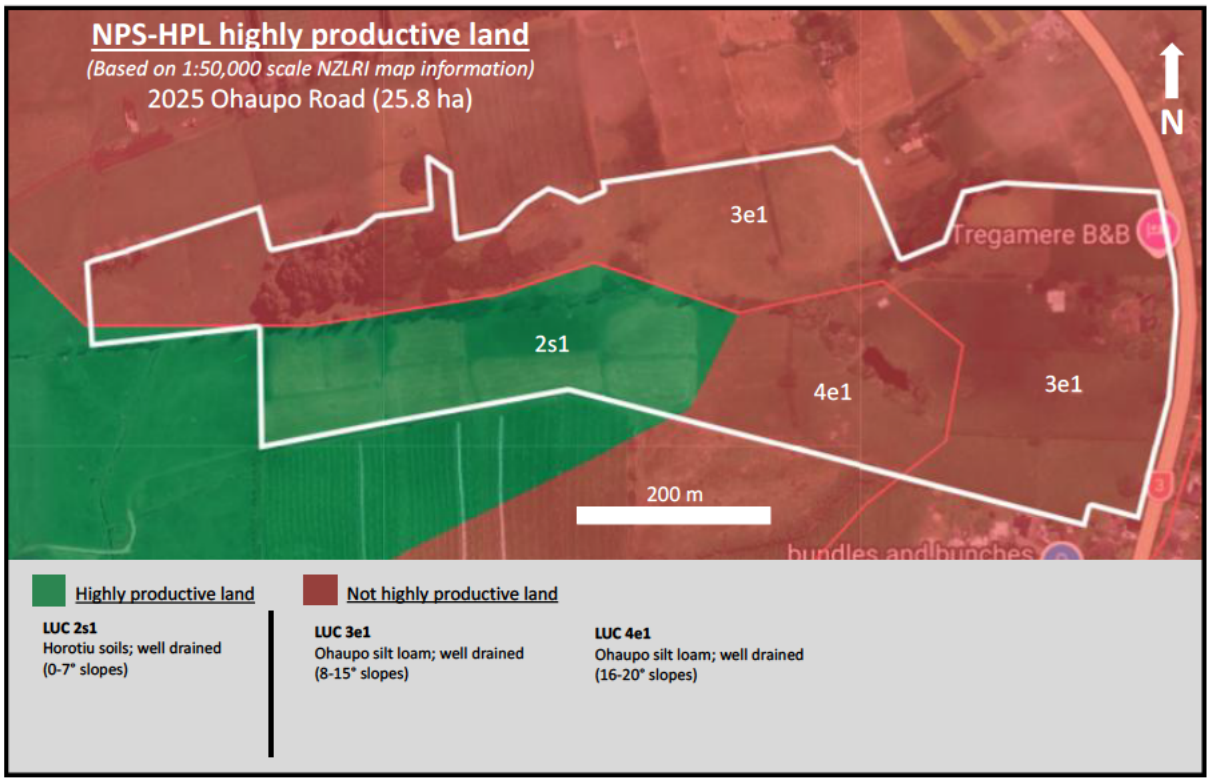


Figure 5. *Distribution of NPS-HPL highly productive land based on the regional NZLRI mapping for the assessment area, 2025 Ohaupo Road.*

Based on the regional NZLRI mapping, the total area of NPS-HPL highly productive land in the assessment area is 5.7 ha (22%), and the balance of the area (20.1 ha, 78%) is not classified as highly productive land.

10 Regional scale map information limitations

The LUC classification can be applied at any scale and regional scale LUC map units can differ from those identified at property scale. Property scale mapping is typically undertaken at a scale between 1:5,000 and 1:15,000, while catchment and regional maps are generally mapped at 1:50,000 scale. The LUC Handbook sets out recommended mapping scales for inventory surveys and LUC mapping.

Mapping LUC at property scale can identify different LUC units (and map units) than depicted by regional scale LUC mapping. This is because property scale mapping includes more observations compared with regional scale mapping. A 1:5,000 scale map requires on average four observations per hectare, while a 1:50,000 scale map requires 0.04 observations per hectare (or four observations per 100 hectares). With GIS tools and geospatial databases it has become easy to manipulate maps, creating the temptation to rescale a map beyond its original scale of collection. Enlarging maps from their original scale does not provide the same accuracy or contain more detail than a coarse scale map. For the regional scale LUC map information, map unit boundaries may not align with the topography (slope) and other geographic features such as rivers or terraces.

The 1:50,000 scale NZLRI data provides good foundational physical information for regional planning. However, for the objective of assessing soil resources, land use capability, and Waipa District Plan defined high class soils at property scale, on-site assessment is the most accurate and fit-for-purpose method.

11 On-site (property scale) soil and LUC classification assessment

Landsystems undertook an on-site property scale field soil and LUC assessment of 2025 Ohaupo Road, Te Awamutu 3800 (25.8 ha) according to standard methods (Milne et al., 1995[7] and Lynn et al., 2009[8]). The assessment was undertaken on the 20th October 2022.

Observations of slope angle, topography and soil parent material were made over the relevant area. Soil augering up to 100 cm depth was used to assess soil properties such as soil horizons, drainage, plant root depths, texture, structure, and colour. This information was used to determine soil type and soil boundaries, from which the necessary LUC classification was assigned. All soils were assessed in current condition and areas with modified soils were identified and mapped.

12 Soil and LUC classification

A summary of the on-site mapped soils and LUC units for the assessment area is provided in **Table 4**.

[7] Milne JDG, Clayden B, Singleton P.L, Wilson AD. 1995. Soil Description Handbook. Lincoln, New Zealand, Manaaki Whenua Press. 157p.

[8] Lynn IH, Manderson AK, Page MJ, Harmsworth GR, Eyles GO, Douglas GB, Mackay AD, Newsome PJF. 2009. Land Use Capability survey handbook – a New Zealand handbook for the classification of land. AgResearch Hamilton; Manaaki Whenua Lincoln; GNS Science Lower Hutt, New Zealand.

Table 4. *Soils and LUC units identified for the assessment area, 2025 Ohaupo Road.*

Soil type	Parent material	Slope class	Soil drainage	LUC Unit	Area (ha)
Ohaupo silt loam	Younger ashes over 'Hamilton ashes'	A+B (0-7°)	Well drained	2e3	6.8
Rotokauri clay loam	Mixed ash colluvium	A+B (0-7°)	Imperfectly drained	2w3	0.3
Ohaupo silt loam	Younger ashes over 'Hamilton ashes'	C (8-15°)	Well drained	3e1	7.5
Rotokauri clay loam	Mixed ash colluvium	C (8-15°)	Imperfectly drained	3e2	0.1
Mangapiko silt loam	Mixed ash alluvium	A (0-3°)	Very poor to poorly drained	3w1	3.1
Ohaupo silt loam	Younger ashes over 'Hamilton ashes'	D (16-20°)	Moderately well drained	4e1	1.4
Ohaupo silt loam	Younger ashes over 'Hamilton ashes'	E+F (21-35°)	Well drained	6e1	0.6
Non-productive land (NPL)	Disturbed soil/fill, riparian areas, mature native vegetation, buildings and curtilage, tracks, excavated drains and spoil.			NPL	6.0

The on-site mapped distribution of soils and LUC units is shown in **Figure 6** (a larger map is provided in **Appendix 2**).

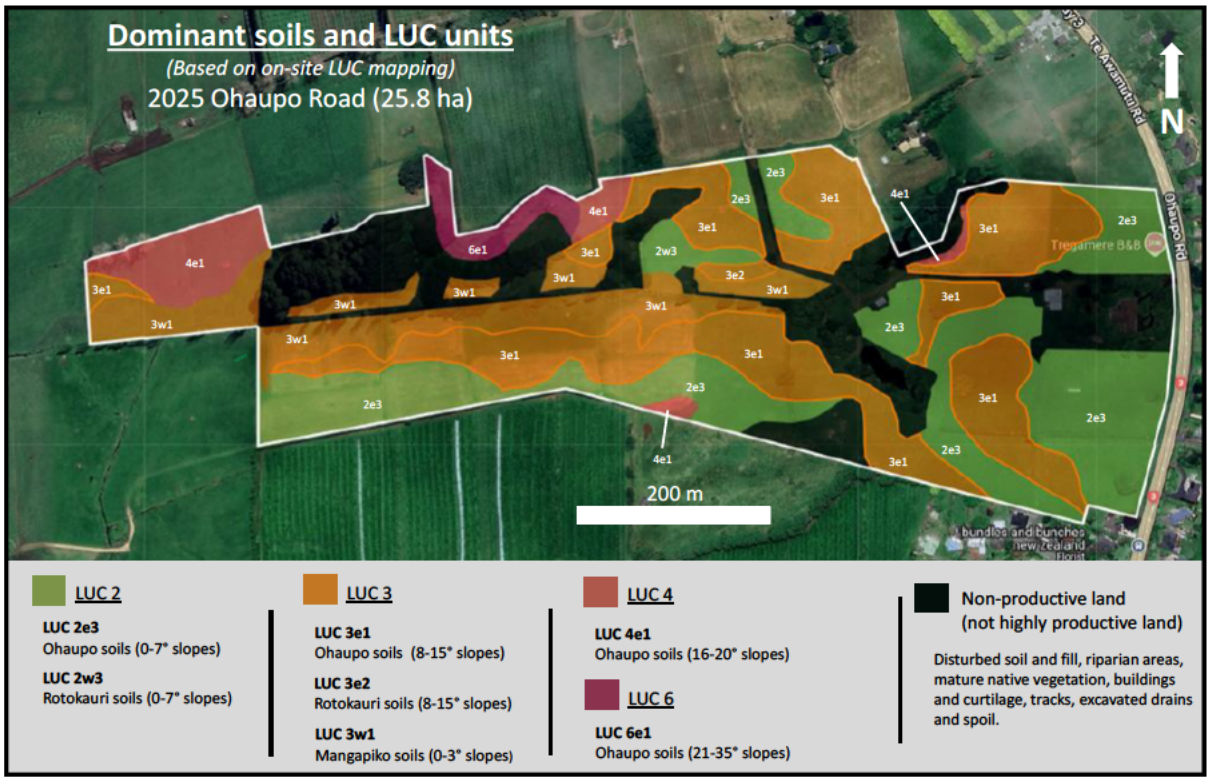


Figure 6. *The distribution of soils and LUC units identified for the assessment area, 2025 Ohaupo Road.*

On-site mapping identified well drained and moderately well drained Ohaupo silt loam as the dominant soil (16.3 ha) in the assessment area. LUC classifications differed due to slope from LUC 2e3 on flat to undulating slopes, 3e1 on rolling slopes, and 4e1 on strongly rolling slopes and 6e1 on steep land.

Several smaller areas of LUC 2e3 are surrounded by steeper rolling topography and could be considered gentler sloping sub-dominant topography within a greater LUC 3e1 unit with dominant rolling topography (i.e. LUC 3e1 with C+B slope class).

Poorly to very poorly drained Mangapiko silt loam on flat to gently undulating slopes (LUC 3w1) occupied 3.1 ha. Imperfectly drained Rotokauri clay loam occupied 0.4 ha. Rotokauri clay loam on flat to undulating slopes was classified as LUC 2w3, and LUC 3e2 on rolling slopes.

The balance of the assessment area (6.0 ha) was classed as non-productive land.

13 Waipa District Plan defined high class soil

Area estimates of Waipa District Plan defined high class soil based on the on-site mapped LUC units are provided for the assessment area in **Table 5**.

Table 5. *The area estimates of on-site mapped LUC map units and Waipa District Plan defined high class soil for the assessment area, 2025 Ohaupo Road.*

LUC Unit	NZSC Soil Order	Waipa high class soil (HCS)	Area (ha)[1]	Area (%)[2]
High class soil				
2e3	Allophanic	HCS	6.8	26%
2w3	Gley	HCS	0.3	1%
3e1	Allophanic	HCS	7.5	29%
Total			14.6	56%
Not high class soil				
3e2	Gley	Not HCS	0.1	<1%
3w1	Gley	Not HCS	3.1	12%
4e1	Allophanic	Not HCS	1.4	6%
6e1	Allophanic	Not HCS	0.6	2%
NPL[3]	Not applicable	Not HCS	6.0	23%
Total			11.2	44%

[1] Rounded to 1 decimal place; [2] rounded to whole number; [3] non-productive land.

The distribution of Waipa District Plan defined high class soil based on on-site mapped LUC map units is shown in **Figure 7** (a larger map is provided in **Appendix 2**).

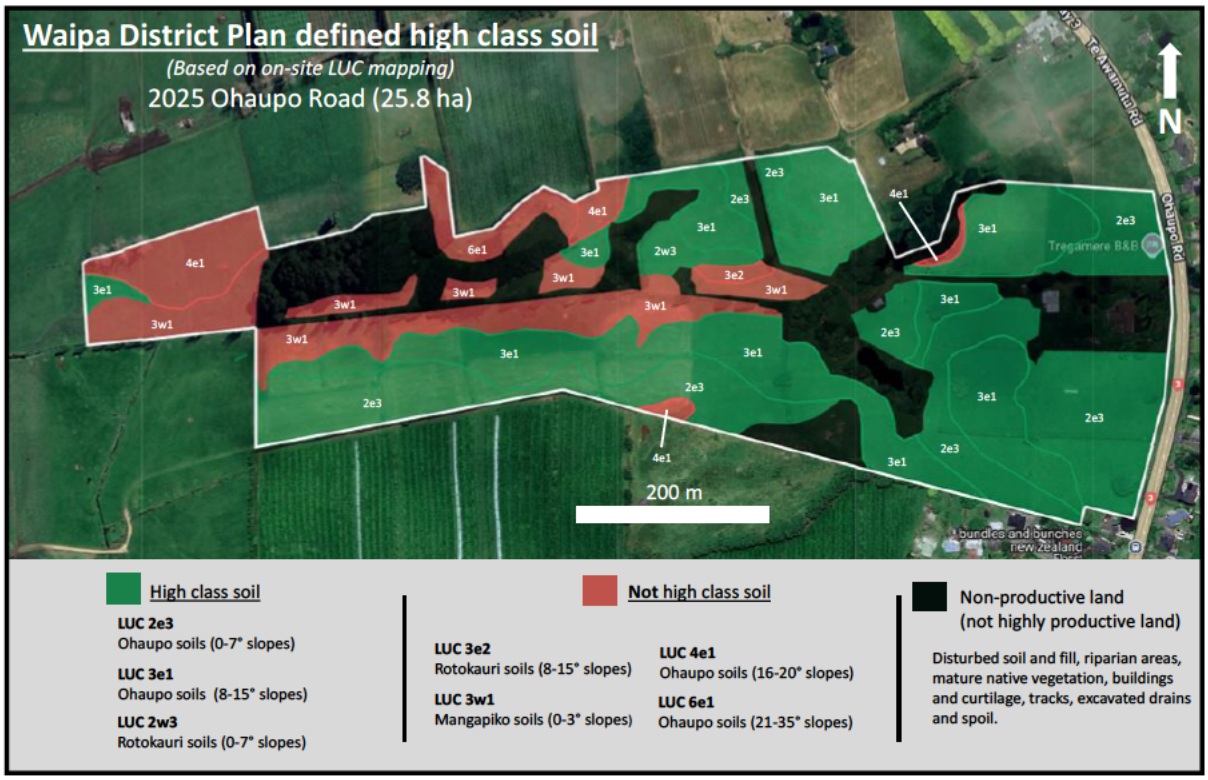


Figure 7. *Distribution of Waipa District Plan defined high class soil based on on-site mapped LUC map units for the assessment area, 2025 Ohaupo Road.*

Based on the on-site LUC mapping, the total area of high class soil in the assessment area is 14.6 ha (56%), and the balance of the area (11.2 ha, 44%) is not classified as high class soil.

This balance includes 6.0 ha (23%) of non-productive land, with the remaining 5.2 ha being land in lower LUC classes.

14 LUC limitations and productive potential

14.1 High class soil

Although the on-site mapping identified Waipa District Plan defined high class soil on the Site (LUC 2e3, 2w3 and 3e1), these areas occur as patches set within a landscape of LUC 3e2, 3w1, 4e1 and 6e1 land. Several of the LUC 2e3 patches are small and surrounded by steeper rolling topography classified as LUC 3e2 and 4e1. From a practical land use perspective the high class soil areas are not sufficient in size or contiguity to be separately managed differently to the surrounding LUC units; they function as inclusions within the more extensive surrounding LUC units.

14.2 Soil wetness

Areas of LUC 2w3 and 3w1 land on the Site have soil wetness limitations associated with poorly to very poorly drained Mangapiko silt loam on flat to gently undulating slopes. These areas remain wet at least seasonally and constrain land use to pastoral use with lighter or no stocking during wetter periods. Drainage management can improve year-round availability of the land for productive use, but the wetness limitation cannot be fully removed.

14.3 Slope and erosion

Land classified as LUC 3e1, 3e2 and 4e1 on the Site has slope-related erosion limitations under cultivation. LUC 6e1 land has a moderate erosion hazard under perennial vegetation. Given the fragmented distribution of the LUC Class 2 and 3 land within the more extensive LUC 4e1 land, cropping is not practically feasible across the Site and the land is best suited to pastoral use, production forestry or conservation.

14.4 Non-productive land

The Site has 6.0 ha (23%) of non-productive land including buildings and curtilage, tracks, earthworked areas, native vegetation and wetlands and seeps. These areas are no longer available for primary productive use and have been excluded from the productive area of the Site to which the LUC classification has been applied. Some of these areas carry volunteer vegetation but lack a functioning soil profile, being disturbed fill with buried debris and exposed subsoil, and so are not considered available for sustained primary production.

15 Summary

Landsystems undertook a soil and Land Use Capability classification assessment of 2025 Ohaupo Road, Te Awamutu, on behalf of Te Awamutu Developments Limited to support a proposed senior living development. The Site covers 25.78 ha and is located in the Waipa District.

Based on the regional scale NZLRI map information, the soils of the Site are Horotiu soils (LUC 2s1, 5.7 ha) and Ohaupo silt loam on rolling to strongly rolling slopes classified as LUC 3e1 (16.4 ha) and LUC 4e1 (3.7 ha).

Applying the Waipa District Plan high class soil definition to the NZLRI mapping, 22.1 ha (LUC 2s1 and LUC 3e1) is identified as high class soil at regional scale.

Applying the NPS-HPL as amended in December 2025 to the operative NZLRI mapping, and applying clause 3.5(7)(b)(iii) to exclude LUC Class 3 land for the senior living development proposal at the Site, 5.7 ha (22%) of the Site is identified as NPS-HPL highly productive land (LUC 2s1).

On-site property scale mapping refined the LUC classification to show LUC Class 2 (2e3 and 2w3) on 7.1 ha, LUC Class 3 (3e1, 3e2 and 3w1) on 10.7 ha, LUC Class 4 and 6 (4e1 and 6e1) on 2.0 ha, and 6.0 ha of non-productive land. The on-site mapping identified well drained and moderately well drained Ohaupo silt loam as the dominant soil, with smaller areas of poorly to very poorly drained Mangapiko silt loam on flat to gently undulating slopes.

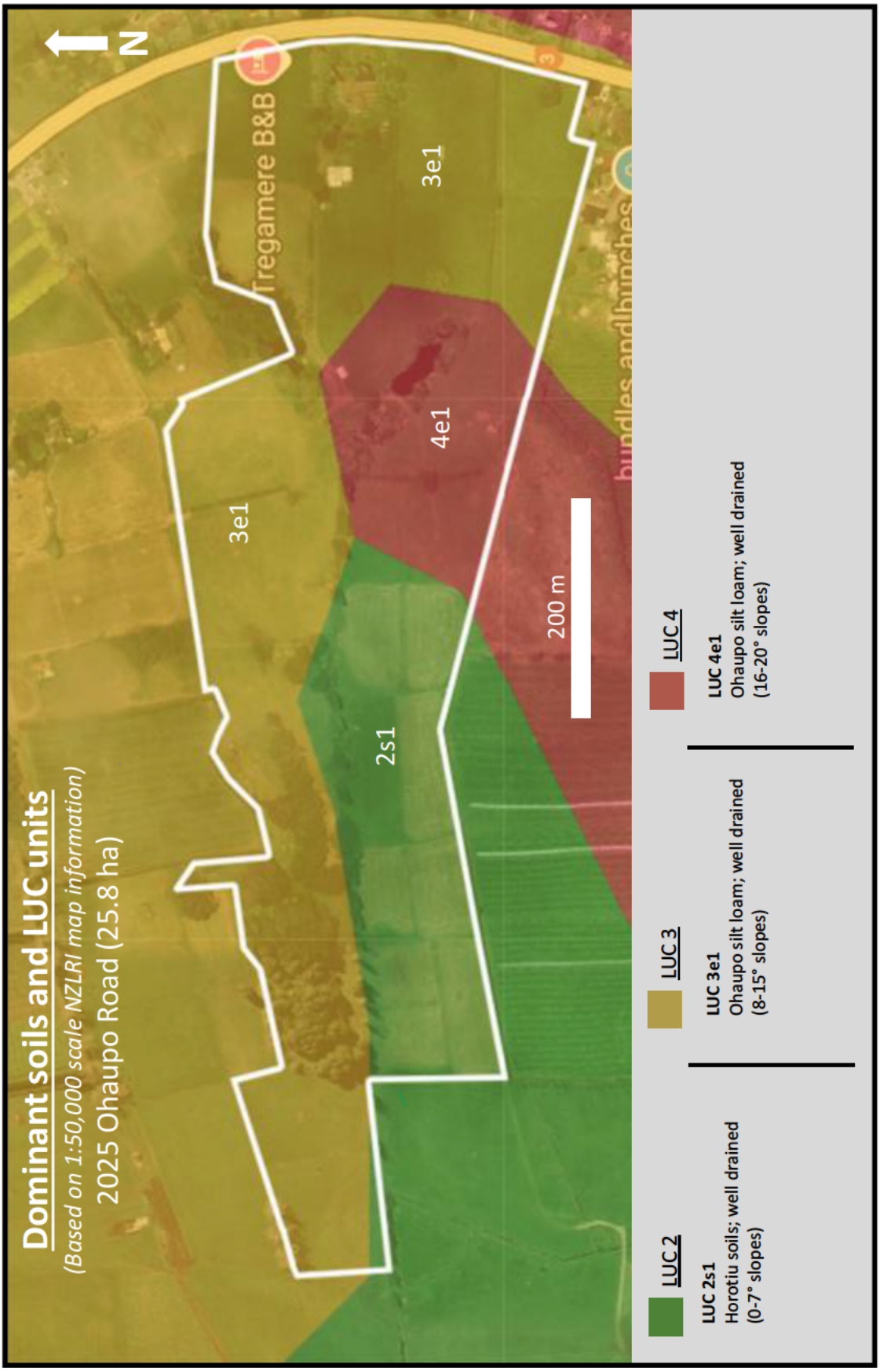
Approximately 6.0 ha (23%) of the Site is classified as non-productive land, comprising earthworked areas, buildings and curtilage, tracks, native vegetation, and wetlands and seeps. These areas have been excluded from the productive area to which the LUC classification has been applied.

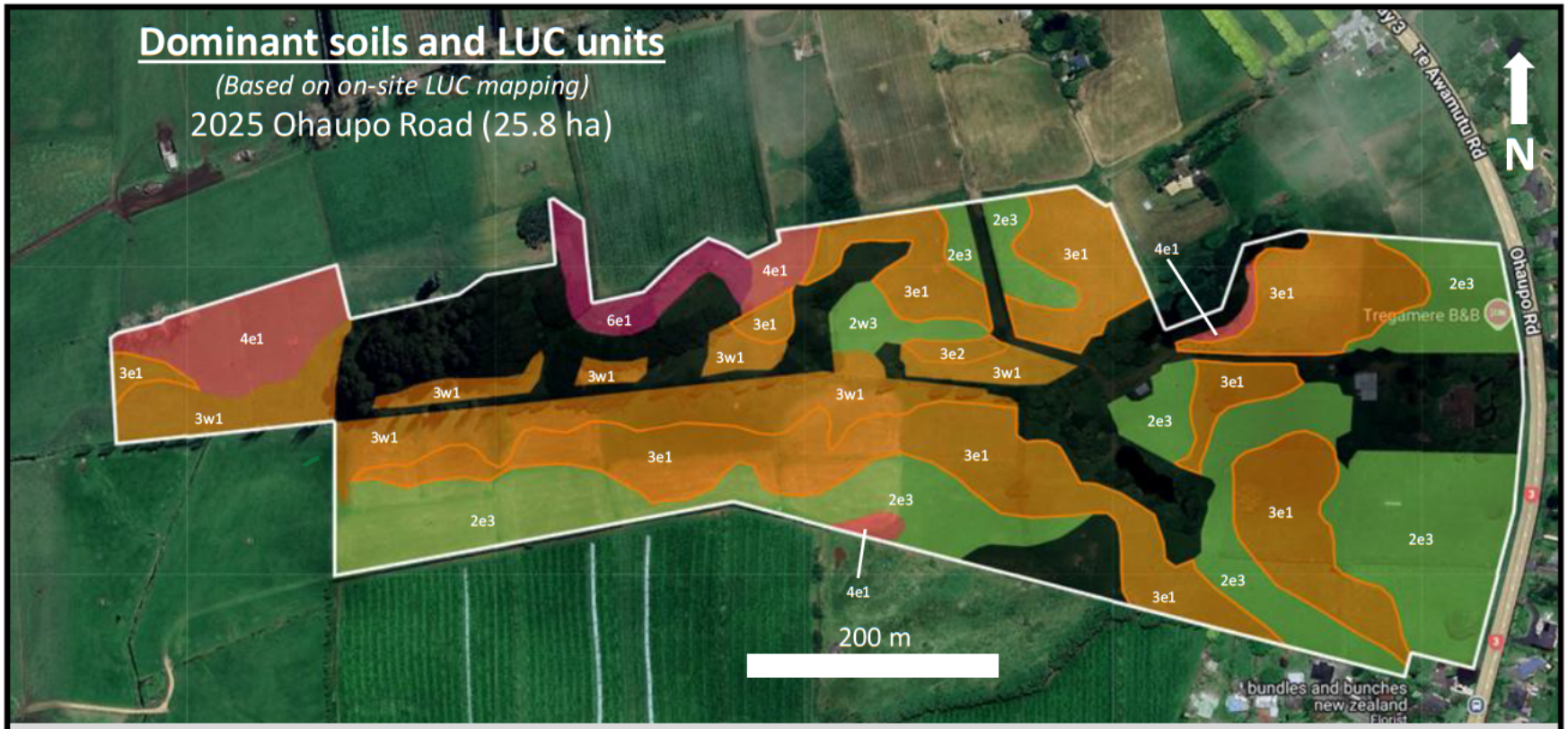
Applying the Waipa District Plan high class soil definition to the on-site mapping, 14.6 ha (56%) of the Site is identified as high class soil (LUC 2e3, 2w3 and 3e1). However, the high class soil areas occur as patches within a landscape of lower-class land and function as inclusions within the more extensive surrounding LUC units.

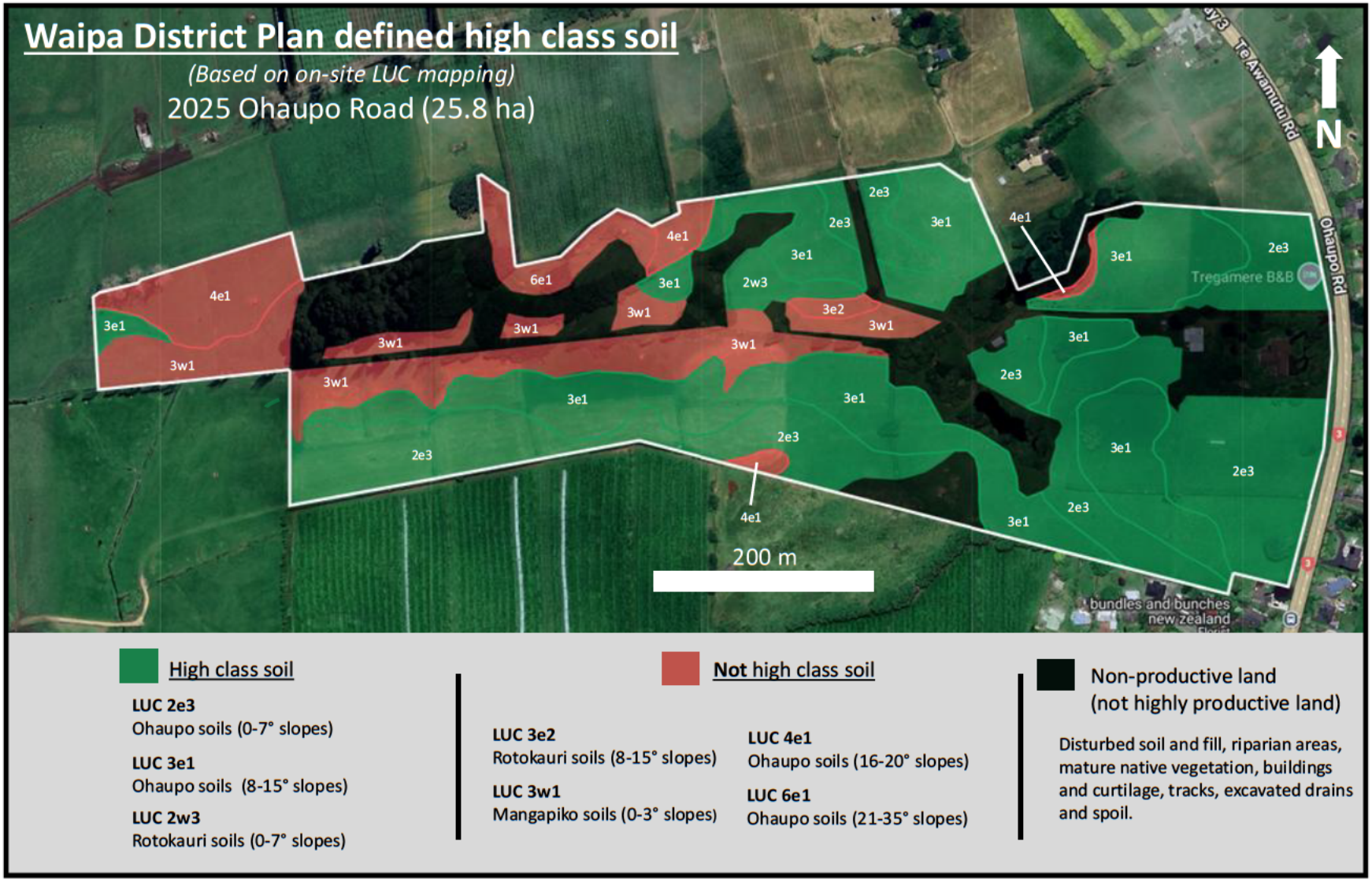
Appendix 1: Overall Proposed Site Plan.

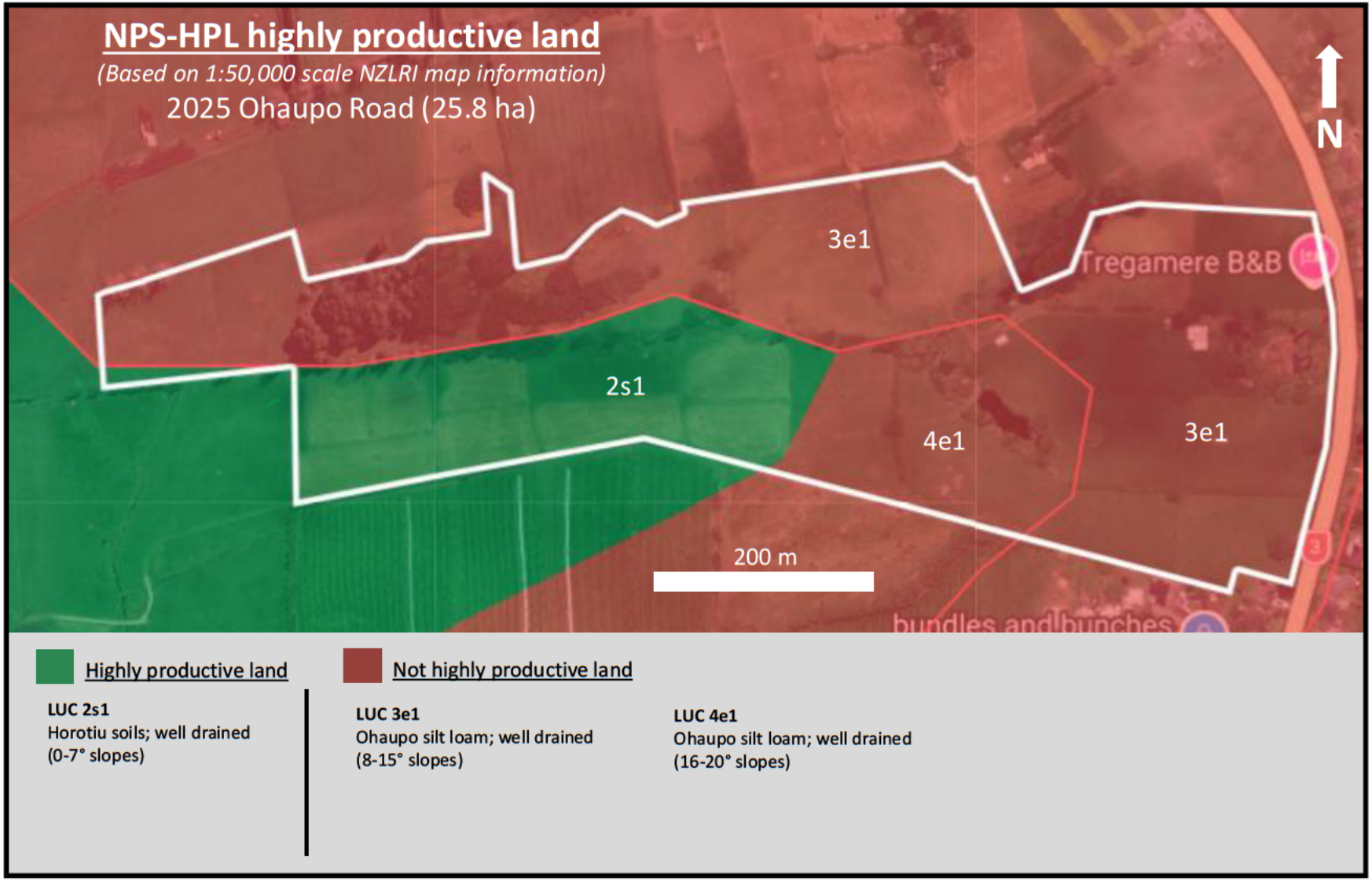


Appendix 2: Enlarged map images.




Dominant soils and LUC units
(Based on on-site LUC mapping)
2025 Ohaupo Road (25.8 ha)
N
Te Awamutu Rd
Ohaupo Rd
Tregamere B&B
4e1
3e1
3w1
6e1
2e3
2w3
3e2
200 m
LUC 2
LUC 2e3
Ohaupo soils (0-7° slopes)
LUC 2w3
Rotokauri soils (0-7° slopes)
LUC 3
LUC 3e1
Ohaupo soils (8-15° slopes)
LUC 3e2
Rotokauri soils (8-15° slopes)
LUC 3w1
Mangapiko soils (0-3° slopes)
LUC 4
LUC 4e1
Ohaupo soils (16-20° slopes)
LUC 6
LUC 6e1
Ohaupo soils (21-35° slopes)
Non-productive land
(not highly productive land)
Disturbed soil and fill, riparian areas, mature native vegetation, buildings and curtilage, tracks, excavated drains and spoil.


Waipa District Plan defined high class soil
(Based on on-site LUC mapping)
2025 Ohaupo Road (25.8 ha)
N
Te Awamutu Rd
Ohaupo Rd
Tregamere B&B
4e1
3e1
3w1
6e1
3e1
2w3
3w1
3w1
3w1
3w1
3e2
3w1
2e3
2e3
3e1
4e1
3e1
2e3
3e1
3e1
2e3
3e1
2e3
2e3
3e1
2e3
4e1
200 m
bundles and bunches
new zealand
High class soil
LUC 2e3
Ohaupo soils (0-7° slopes)
LUC 3e1
Ohaupo soils (8-15° slopes)
LUC 2w3
Rotokauri soils (0-7° slopes)
Not high class soil
LUC 3e2
Rotokauri soils (8-15° slopes)
LUC 3w1
Mangapiko soils (0-3° slopes)
LUC 4e1
Ohaupo soils (16-20° slopes)
LUC 6e1
Ohaupo soils (21-35° slopes)
Non-productive land
(not highly productive land)
Disturbed soil and fill, riparian areas, mature native vegetation, buildings and curtilage, tracks, excavated drains and spoil.


NPS-HPL highly productive land
(Based on 1:50,000 scale NZLRI map information)
2025 Ohaupo Road (25.8 ha)
N
3e1
Tregamere B&B
2s1
4e1
3e1
200 m
bundles and bunches
Highly productive land
Not highly productive land
LUC 2s1
Horotiu soils; well drained
(0-7° slopes)
LUC 3e1
Ohaupo silt loam; well drained
(8-15° slopes)
LUC 4e1
Ohaupo silt loam; well drained
(16-20° slopes)