



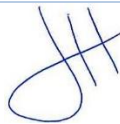
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Sunfield NPS-HPL Assessment

Prepared for:
- Sunfield Developments Ltd

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September 2025

DOCUMENT QUALITY ASSURANCE

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1.0 EXECUTIVE SUMMARY

Sunfield Developments Limited (**SDL**) is seeking to develop a 244.5 hectares (**ha**) parcel of land in Takanini (the **Development Site**) to allow the development of a masterplanned community of scale. The Development Site is specifically located on parcels of land located between Airfield Road, Mill Road, Old Wairoa Road and Hamlin Road within the Auckland District. The Development Site's current zoning consists of 56.5 ha of Future Urban Zone (**FUZ**) and 188.0 ha of Mixed Rural Zone (**MRZ**).

The soils mapped at the Development Site are classified under the NZLRI as LUC 2w6 and LUC 2s13. Therefore, based on the NZLRI, the entirety of the MRZ portion of the Development Site is HPL (LUC 1, 2 or 3). The remaining portion of the Development Site is zoned FUZ and is therefore not subject to assessment under the NPS-HPL.

AgFirst has assessed the MRZ portion of the Development Site against the National Policy Statement – Highly Productive Land (**NPS-HPL**). This relates to an assessment of the Development Site against the circumstances in which non-productive activities such as urban development can be undertaken where the criteria in either Clause 3.8, 3.9 or 3.10 of the NPS-HPL are satisfied.

On 13 June 2025, NZTA lodged a Notice of Requirement (NoR) on part of the Sunfield land for a section of Mill Road Stage 2. This section of Mill Road is to be located on the eastern boundary of Sunfield. The NoR covers an area of 19.4 ha which is currently zoned Mixed Rural Zone. As this area has been earmarked as the location for a section of Mill Road, it has been included in our economic analysis within this assessment.

The Development Site is currently utilised as a dry stock and equine grazing farm, an equestrian centre, and a number of small lifestyle blocks. AgFirst has undertaken a productive and economic analysis of the area of the Development Site which is suitable for land-based primary production using industry values and figures against the specific property liabilities. The analysis shows that the highest and best use for the Development Site, given its permanent and long-term constraints and limitations, is a beef finishing farm with a small area suitable for arable. However, the financial return based on a highest and best land use shows a significant deficit, with projected net losses for every individual property, regardless of them being amalgamated in an attempt to form an economic unit. These substantial deficits indicate that the long-term viability of these operations is unsustainable, and would not be viable today nor in 30 years.

Significant constraints for land-based primary production have been identified which affect the Development Site, including:

- Surrounding land uses to the south and west are zoned as residential and FUZ, with land to the east zoned as a special purpose zone for Ardmore Airport and other highly fragmented rural zoned areas.
- Soil conditions
 - » Very poorly and poorly drained, causing reduced yields and limited carrying capacity.
 - » Land unsuitable for alternative higher value land-based primary production.
- Limited expansion or improvement options
 - » Due to physical boundaries and lack of amalgamation opportunities.

- An indicative budget across the entire Development Site under pastoral grazing and arable land use, using industry information shows this is not economically viable with a revised net individual property loss of between **-\$220,745** and **-\$29,010** or a Development Site cumulative loss of **-\$1,455,813** or **-\$9.029.98** per effective ha.
- The land has been valued not on the land-based primary production or quality of the soil and land, but the location of the property. This block will not be purchased for the purpose of land-based primary production nor will it ever be used as a commercial farming enterprise with the purpose of making a profit solely off the land.

Currently there is not a pathway through clause 3.8 of the NPS-HPL as highly productive land would be lost through the construction of the Development Site. There is also no pathway through clause 3.9 of the NPS-HPL as the Development Site does not meet any of the defined exceptions for 'appropriate use'. However, it is AgFirst's opinion that the proposal satisfies the exemption under clause 3.10 of the NPS-HPL which means that the Development Site can be used for non-productive purposes such as urban development.

2.0 BACKGROUND

SDL is seeking to develop the Development Site to allow the development of a masterplanned community of scale. Presented in Figure 1 is the outline of the Development Site in relation to other land use zones in the immediate area. It should be noted that Auckland Council, via its Future Development Strategy 2023-2053, has removed a large proportion FUZ zoned land in the immediate vicinity of the Development Site due to flood risk. This is illustrated as a blacked-out area on the map identified as 'Area for Removal'. This is the southern portion of the Takaanini FUZ, which Auckland Council (via the Future Development Strategy) no longer considers appropriate for urban development (Red Flagged Areas and Area for Removal) as shown on Figure 12. This portion of the Future Urban Zone (**FUZ**) is within the 1% AEP floodplain and is underlain by peat soils.

Adjoining the Development Site to the south and west is land zoned as residential and FUZ, with the land to the east zoned as Special Purpose Zone for Ardmore Airport. The remaining land to the north and southeast is zoned Mixed Rural Zone (**MRZ**). All these areas are within the Auckland District boundary.

The Site is currently utilised as pastoral grazing, with some blocks with seasonal arable maize and lifestyle lots.

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

Table 1. Description of Parcels within Site zoned MRZ

Map ID	Legal Description	Area (ha)
1	Lot 1 DP 103787	3.04
2	Lot 1 DP 21397	30.71
3	Lot 2 DP 103787	3.04
4	Lot 2 DP 199521	14.41
5	Lot 2 DP 21397	10.11
6	Lot 3 DP 103787	3.04
7	Lot 4 DP 103787	8.63
8	Lot 5 DP 103787	3.04
9	Lot 5 DP 12961	35.91
10	Lot 6 DP 103787	3.03
Shared Driveway	Lot 7 DP 103787	0.2
11	Lot 8 DEEDS Whau 38	22.57
12	Part Allot 32 PSH OF Papakura	9.60
13	Part Lot 2 DP 22141	19.00
14	Part Lot 4 DP 12961	21.77
	TOTAL	188.0

AgFirst has been engaged by SDL to provide an assessment that considers the proposed Sunfield urban development against the National Policy Statement – Highly Productive Land (NPS-HPL). This relates to an assessment of the Development Site against the circumstances in which non HPL 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 Development Site's consent application, including the planning and economic analyses.

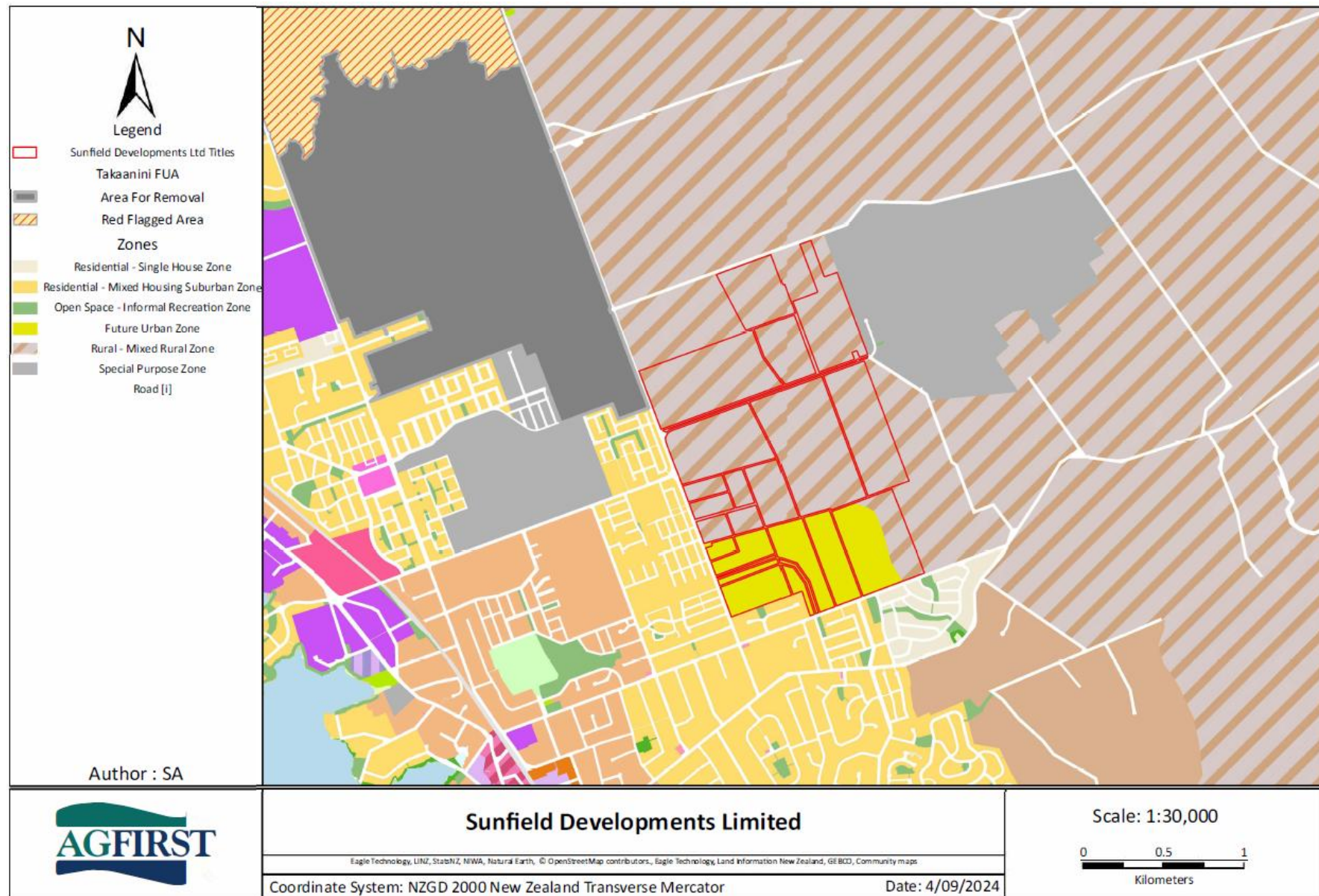


Figure 1: Development Site legal boundaries, and Auckland unitary plan

3.0 PROPERTY SUMMARY AND EXISTING LAND USE

As detailed above, the total Development Site area is 245.5 ha. 188.0 ha of the Development Site is zoned MRZ and is subject to our assessment as the balance is zoned FUZ and is not captured by the NPS-HPL.

Of the 188.0 ha of MRZ comprising the Site, AgFirst has determined 7.5 ha of land (being the land that has been built or developed on) to be unproductive due to the modified and/or anthropic soils. This is detailed further below in section 5.4 and shown in Figure 7.

The Development Site consists of multiple MRZ titles, which range from small residential and lifestyle blocks that are 3.0 ha, to the largest title that is 35.9 ha. The legal boundaries and zoning of the Development Site are shown in Figure 1.

AgFirst visited the Development Site on the 17th of May 2024 to assess the productivity of the Development Site.

Figure 2 shows the extent of the Development Site. All Figures focusing on the Development Site have been produced using recent imagery provided by SDL which better illustrates the neighbouring land uses.

Overall, the Development Site has a diverse range of soil types, drainage characteristics and property sizes. These physical limitations along with the extensive subdivision and development surrounding the Development Site and fragmentation of highly productive land within the site create permanent and long-term constraints and challenges for land-based primary production.

3.1 Current Land Use

As detailed above, 33.4 ha of the Development Site is currently used as lifestyle blocks. This area consists of seven small individual properties each less than 10 ha. Due to access restrictions, AgFirst were not able to visit these all of these properties, therefore the assessment has relied on desktop information. There is only land-based primary production on one of these properties, which is part of a larger Lot with zoning as FUZ. The remaining Titles that are less than 10 ha currently have no land-based primary production activities, with a derelict equine centre and overgrown rank pastures throughout the lifestyle blocks. These areas are not contributing to the overall productivity of the Site. Despite this, for the economic analysis required in the 3.10 assessment and a holistic approach, these areas have been identified as being productive despite the low/lack of productive capacity. It is important to note that some of the lifestyle blocks have considerable residential housing improvements established on these sites making it less likely to be used in the long-term for land-based primary production. Non-reversible fragmentation also restricts the use of these areas to be used at any reasonable scale.

The holistic 'dry stock farm' is based on the entire pastoral area of the Development Site, including the FUZ area, due to this area also have stock grazing at the time of the site visit. This area has a combined area of approximately 161.8 ha. Based on the stock assessment on the date of visit, this included an estimated 96 mixed age beef finishing animals and 118 horses. A breakdown of the stock classes is specified in Table 2 and shows the current operations and stock reconciliation. The beef classes consisted of 15 rising one-year old (**R1**) heifers, 15 R1 steers, 33 Rising two-year old (**R2**) heifers and 33 R2 steers. There were 118 pony broodmares with foal and small hack horses. This provides a total revised stock unit (**RSU**) per ha of 9.

In addition to the stock assessment, part of the Development Site is occasionally used for arable purposes. The arable area, which was identified as recently sown pastures at the time of the visit, was estimated as being approximately 18.8 ha. This rotates through the more productive areas of the blocks and consists of maize silage over spring and summer which is harvested and fed to the stock on the block. Therefore, this 18.8 ha was not available as part of the grazing rotation which is presented in Table 2 to determine the RSU per ha.

This intensity of stocking is seen as an accurate representation of the sites' ability to support livestock. This stocking rate is used to understand the Development Site's potential for land-based primary production and the constraints to assess the economic viability of the site.

Table 2: Current Stock Unit Breakdown

Farm Name	Sunfield Current Operation	Total RSU on Farm	RSU/Ha on Farm
Farm Size (ha)	180.6		
Effective Area (ha)	161.8	1388	9
Block Name	Block Area (ha)	Total RSU on Block	RSU/Ha on Farm

Stock class	SU/ha	Animal performance definition	Number of Stock 161.8 ha
Steer 1-2 years age	5.8	WF steer 203kg to 478kg slaughter weight	33
Heifer 1-2 years age	5.7	WF heifer 208kg to 420kg slaughter weight	33
Steer calf< 1 year (weaned)	2.7	WF steer 100kg to 203kg Dec to Jun	15
Heifer calf< 1 year (weaned)	1.6	WF heifer 90kg to 208kg Dec to Jun	15
Pony brood mare w/foal	8	OVERSEER default	59
Small hack	8	OVERSEER default	59
Total Animals on Farm / Block			214

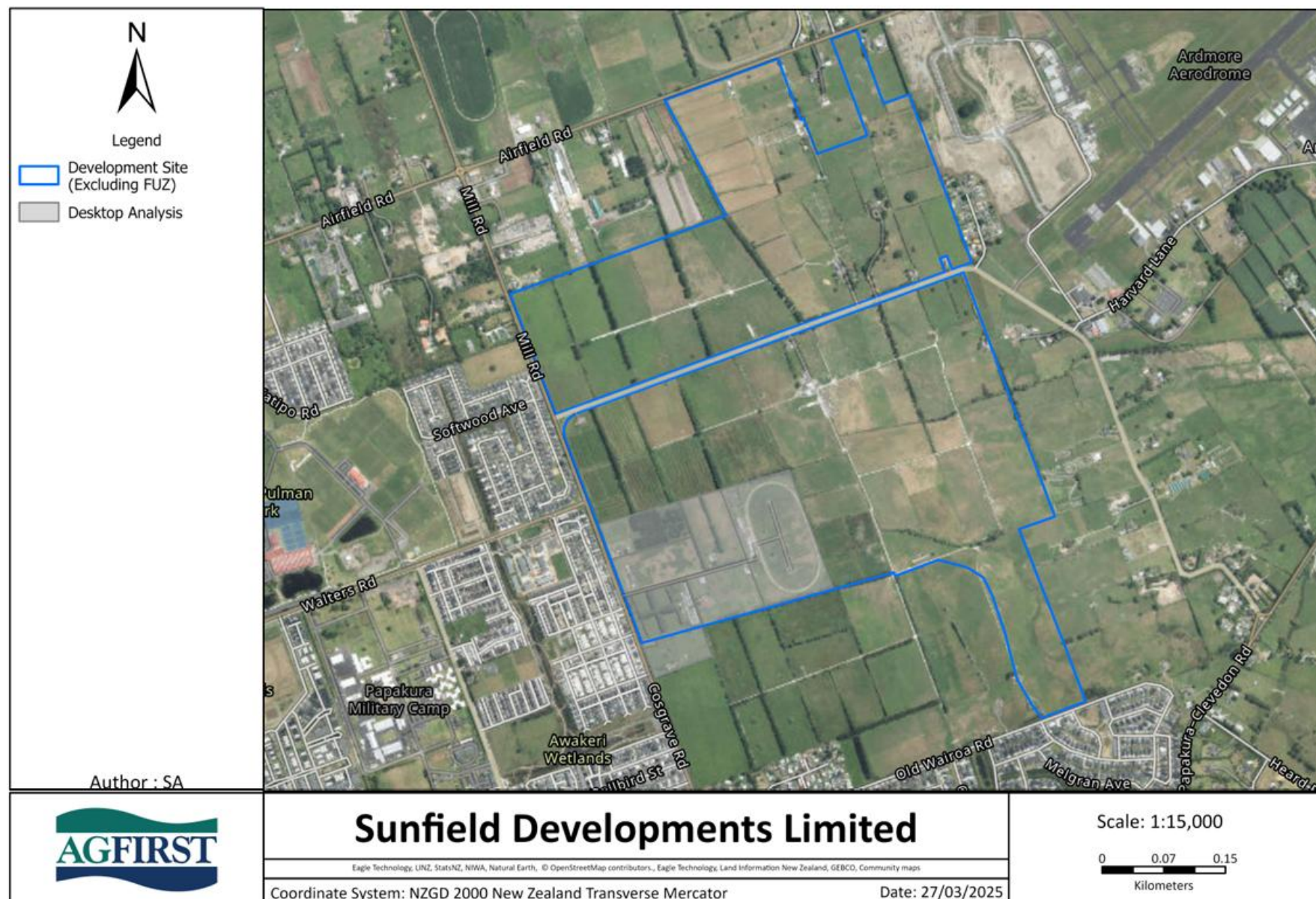


Figure 2: Development Site Subject Area

4.0 NATIONAL POLICY STATEMENT

In September 2022, the Ministry for the Environment (MfE) and the Ministry for Primary Industries (MPI) released the National Policy Statement for Highly Productive Land (NPS-HPL). The objective of this document is *“highly productive land is protected for use in land-based primary production, both now and for future generations.”* The Document was later updated in August 2024 these updates specifically seek to enable specified infrastructure, including renewable energy projects, and indoor primary production such as indoor poultry farms, piggeries and greenhouses, on HPL, the updated version does not have an effect on the application.

Land-based primary production means *production, from agricultural, pastoral, horticultural, or forestry activities, that is reliant on the soil resource 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, based on 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 document closely aligns with the AUP where it identifies LUC Class 1, 2 and 3 as being the most versatile land, with the fewest limitations on its use, and therefore highly productive land.

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 application is not seeking rural lifestyle rezoning and therefore pathway 3.7 is not applicable.

Clause 3.8 of the NPS-HPL states *‘Territorial authorities must avoid the subdivision of highly productive land as unless... the applicant demonstrates that the proposed lots will retain the overall productive capacity of the subject land over the long term’*. The fast track approval application proposed over the Development Site will remove the rural productive potential of the land. This will result in a loss of the availability and productive capacity of highly productive land for rural productivity purposes. Furthermore, the proposed urban use of the subject land will not retain the overall productive capacity of the land over the long term. Clause 3.8 applies to subdivision of highly productive land and states that subdivision must be avoided unless the above criteria (plus the other criteria set out in clause 3.8) can be met. Therefore, the pathway provided by clause 3.8 has not been used to support the proposed urban use of the Development Site.

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 Development Site.

Clause 3.10 sets out the exemptions for subdivision, use or development of highly productive land 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 below:

3.10 Exemption for highly productive land subject to permanent or long-term constraints

(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, by 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 the 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 landholding 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 are assessed in detail in the following sections of this assessment.

5.0 ASSESSMENT OF LAND USE CAPABILITY

5.1 Regulatory Framework for Highly Productive Land

The NPS-HPL sets out a prescriptive approach for councils to identify and protect highly productive land. Until councils have given effect to the NPS-HPL, the interim is provided under Clause 3.5(7):

(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, at the commencement date:

- (a) Is:*
 - (i) Zoned general rural or rural production; and*
 - (ii) LUC 1, 2, or 3 land; but*
- (b) Is not:*
 - (i) Identified for future urban development; or*
 - (ii) Subject to a Council initiated, or adopted, notified plan change to rezone it from general rural production to urban or Country Living Zone.*

LUC 1, 2, or 3 land is defined as Land Use Capability Classification 1, 2, or 3, as mapped by the New Zealand Land Resource Inventory (NZLRI) or by any more detailed mapping that uses the Land Use Capability classification.

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 of 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 3 below.

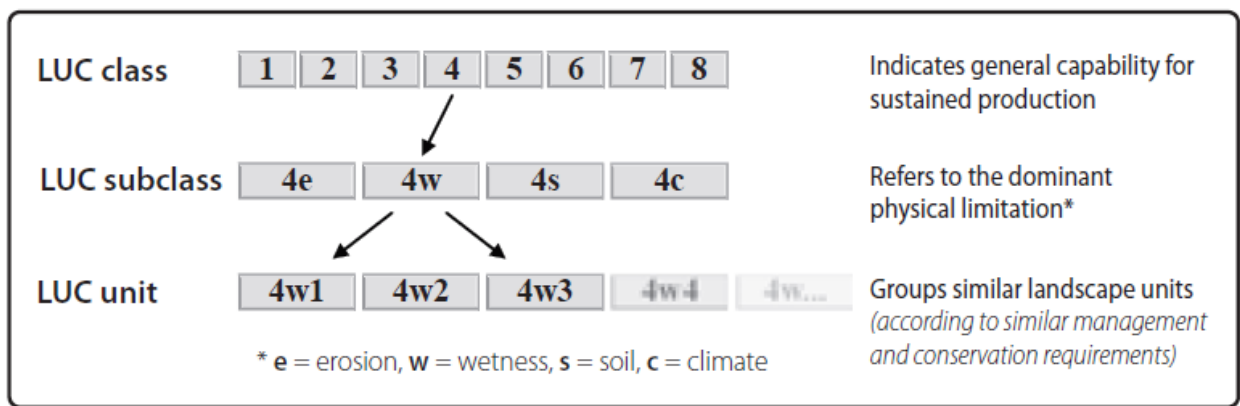


Figure 3: Components of the land use capability classification¹

¹ 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.

AgFirst has reviewed the NZLRI national database of physical land resource information for the Development Site. This database is based on a regional scale LUC rating of the ability of each polygon to sustain long-term agricultural production.

The NZLRI maps are designed for use at a 1:63,000. This means 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 the 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 soils mapped at the Development Site are classified under the NZLRI as LUC 2w6 and LUC 2s13. Therefore, based on the NZLRI, the entirety of the Development Site is HPL (LUC 1, 2 or 3). A portion of the Development Site is classed as FUZ and is therefore not subject to assessment under the NPS-HPL. The NZLRI LUC classifications for this area are presented in Figure 4.

Nearby land of a similar LUC class (as mapped using regional scale NZLRI-LUC data) may be currently being used for a wide range of productive uses, including horticulture. While this may be true for some areas, the statement overlooks the importance of site-specific soil and LUC mapping to identify and confirm limitations for land use. The soils characterised and mapped on-site, have inherent physical and chemical limitations such as poor drainage, clay texture, and acidity that restrict their versatility or long-term sustainability for intensive use. These are both important considerations when assessing productive capacity.

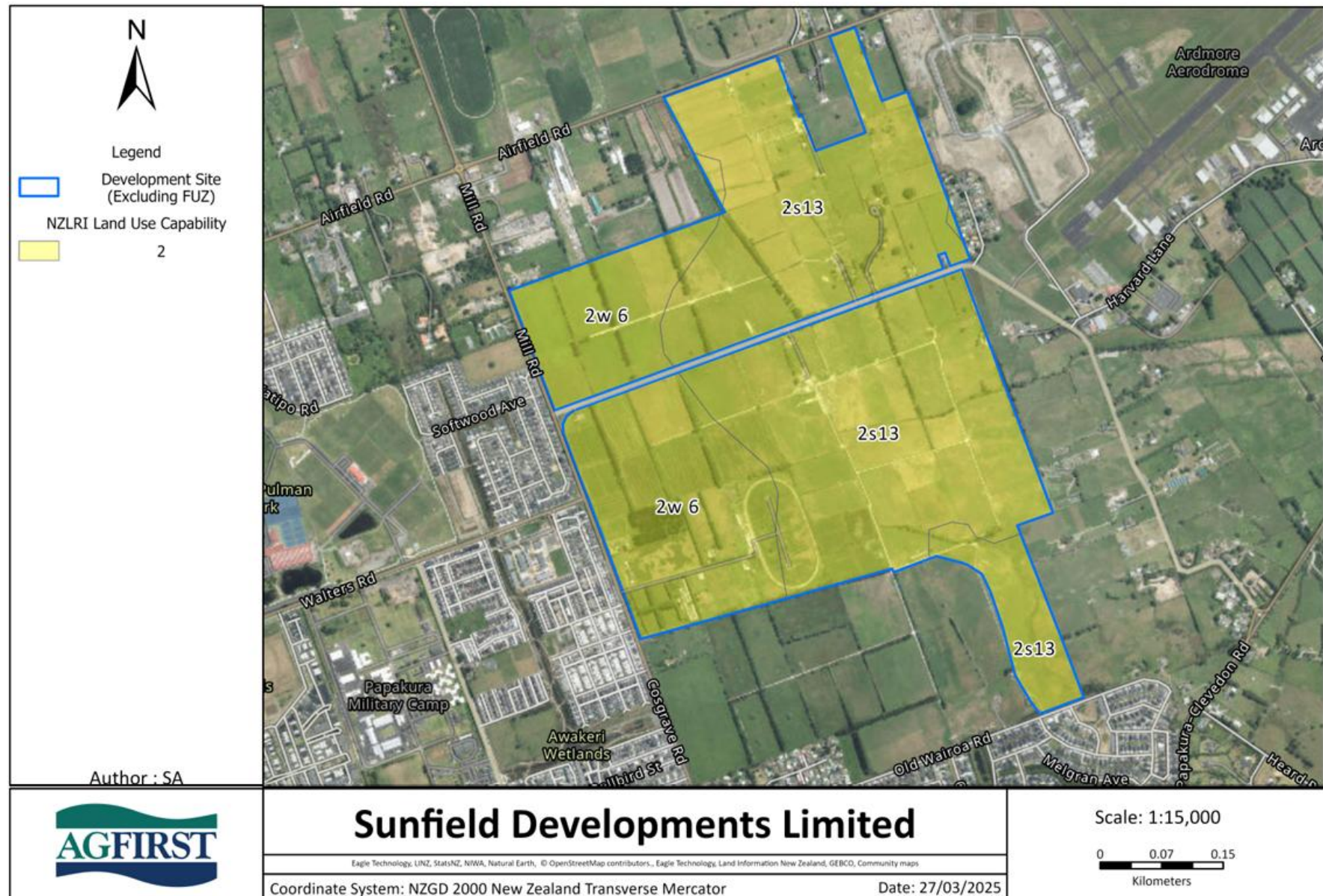


Figure 4: NZLRI Land Use Capability Classification Map for the Site

5.3 Manaaki Whenua – Landcare Research S-Map and OurEnvironment Database

To further understand the soils present across the property with regards to productive capacity, AgFirst has reviewed 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 has a much wider range of soil properties².

The distribution of the soils as mapped by S-Maps is presented in Figure 5 and Figure 6. The S-Maps somewhat align with what was evident when visiting the Development Site and from soil mapping undertaken by experts (Section 5.4), in particular the large area of poorly and very poorly drained soils across the majority of the Development Site. While these soils are still likely to be considered HPL, the significant wetness limitations will impact the versatility and productive capacity of these areas.

² [S-map Online FAQ](#) | [S-Map Online](#) | [Manaaki Whenua - Landcare Research](#)

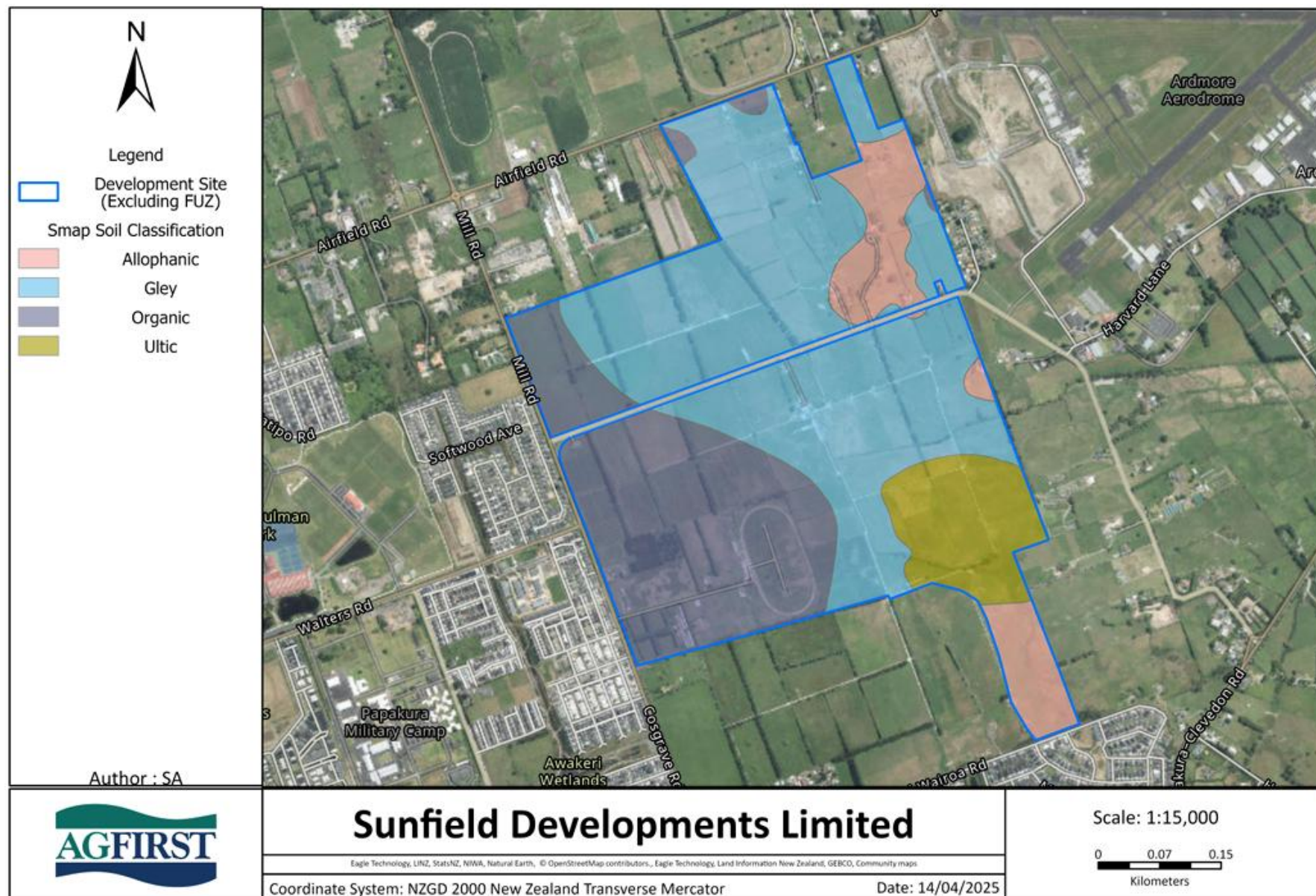


Figure 5: Soil classification representation of the Development Site (excluding FUZ)

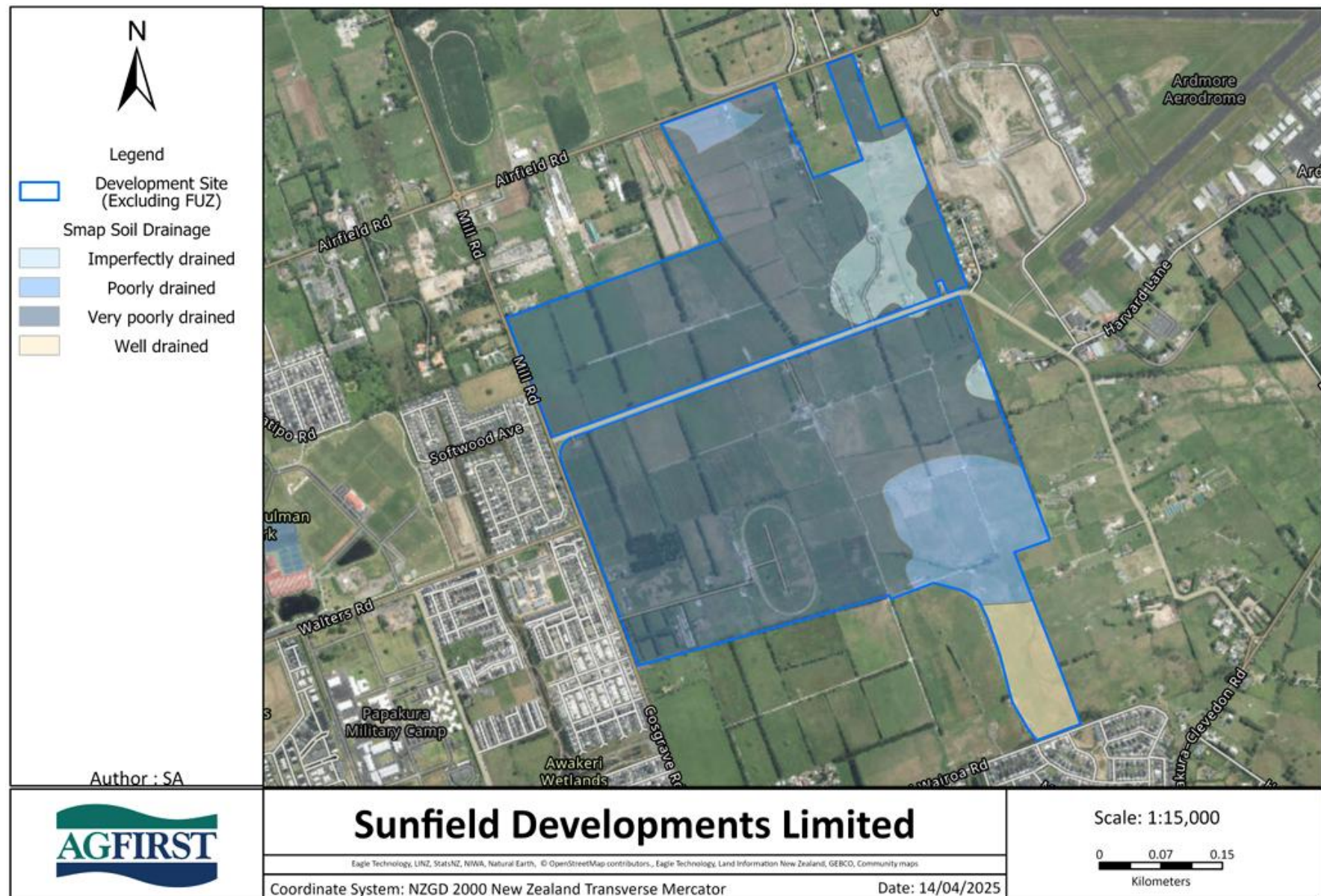


Figure 6: Soil drainage representation of the Development Site (excluding FUZ)

5.4 Site Specific Mapping and LUC Assessment

The NZLRI LUC maps are not intended for farm scale interpretation. Therefore, soil experts including Dr Peter Singleton (Natural Knowledge) and Dr Reece Hill (Landsystems) have been engaged by SDL to undertake an assessment and review the LUC and soils of the Development Site. This section presents the results and outcomes from these reports. These reports are provided in Annexure A (Natural Knowledge Assessment) and Annexure B (Landsystems Review)

Key observations from these reports identify the following:

- The LUC assessment has been undertaken in accordance with accepted guidelines (Milne et al., 1995, and Lynn et al., 2009).
- The Development Site was mainly flat to gently undulating lowland with a smaller area of rolling and undulating hill.
- The assessments highlight limitations on the Site, particularly due to heavy clay soil textures (LUC 2e5 and LUC 3e4) and wetness limitations (LUC 3w2 and LUC 2w2). These restrictions reduce the range of viable primary production land uses, making intensive horticulture and cropping during wet periods unsustainable.
- The Development Site contains small areas of soil suitable for vegetable production and deep-rooting horticulture. However, their individual size and isolation from similar land with good drainage (LUC 2s4) or surrounding heavy clay soils (LUC 2e5 and 3e4) make them less practical for intensive primary production.
- The poorly drained soils (LUC 3w2 and 2w2), although deemed to be HPL are of lesser productive value and not suitable for intensive horticulture or arable crops requiring deep, well drained soils.
- The LUC 2w2 soils have poor drainage and peat texture that makes cropping very difficult throughout the year. With excessive drainage and cultivation the soils are prone to increased subsidence. Also of note is the limitation of acidic conditions which requires ongoing soil pH management to enable production. They are productive land classes but at best limited to pastoral land uses and occasional seasonal cropping.

Presented in Table 3 are the soils and key features that were identified by Natural Knowledge within the Site. These are also presented in Figure 7.

Table 3: Soils identified within the Development Site

Soil type	Waikato LUC	Farm LUC	Features
Karaka	2s4	1c	Well to moderately well drained flat to gently undulating slopes
Clevedon			Poorly drained flat to gently undulating slopes
- Typic	3w2	3a	○ Clay
- Humose	2w2	2w	○ Humic clayey top
- Peaty	2w2	2w	○ Humic clayey top on shallow buried peat
Brookby	2e5	2p	Undulating slopes, imperfectly drained clay
Brookby	3e4	3e	Rolling slopes, imperfectly drained clay
Ardmore	2w2	2w	Poorly drained flat to gently undulating slopes, peat

The soil experts concluded that *“the site was predominantly LUC class 2 land with some LUC class 3 land. Most of the soils had drainage issues and additional limitations such as clay, acid conditions, subsidence or rolling slopes. Because of these limitations they were assessed as productive soils but not Elite or Prime land. This land was 89.7% of the area.*

Some LUC class 2 land was well to moderately well drained and on flat to gently undulating slopes. The soil was silt loam, friable and suited to a wide range of uses. This land was assessed as Elite land. Elite land composed 8.1 % of the area. Non-productive land was 2.2 % of the area.”

The observations made by AgFirst during the site visit are consistent with the observations made from Land Systems and Natural Knowledge.

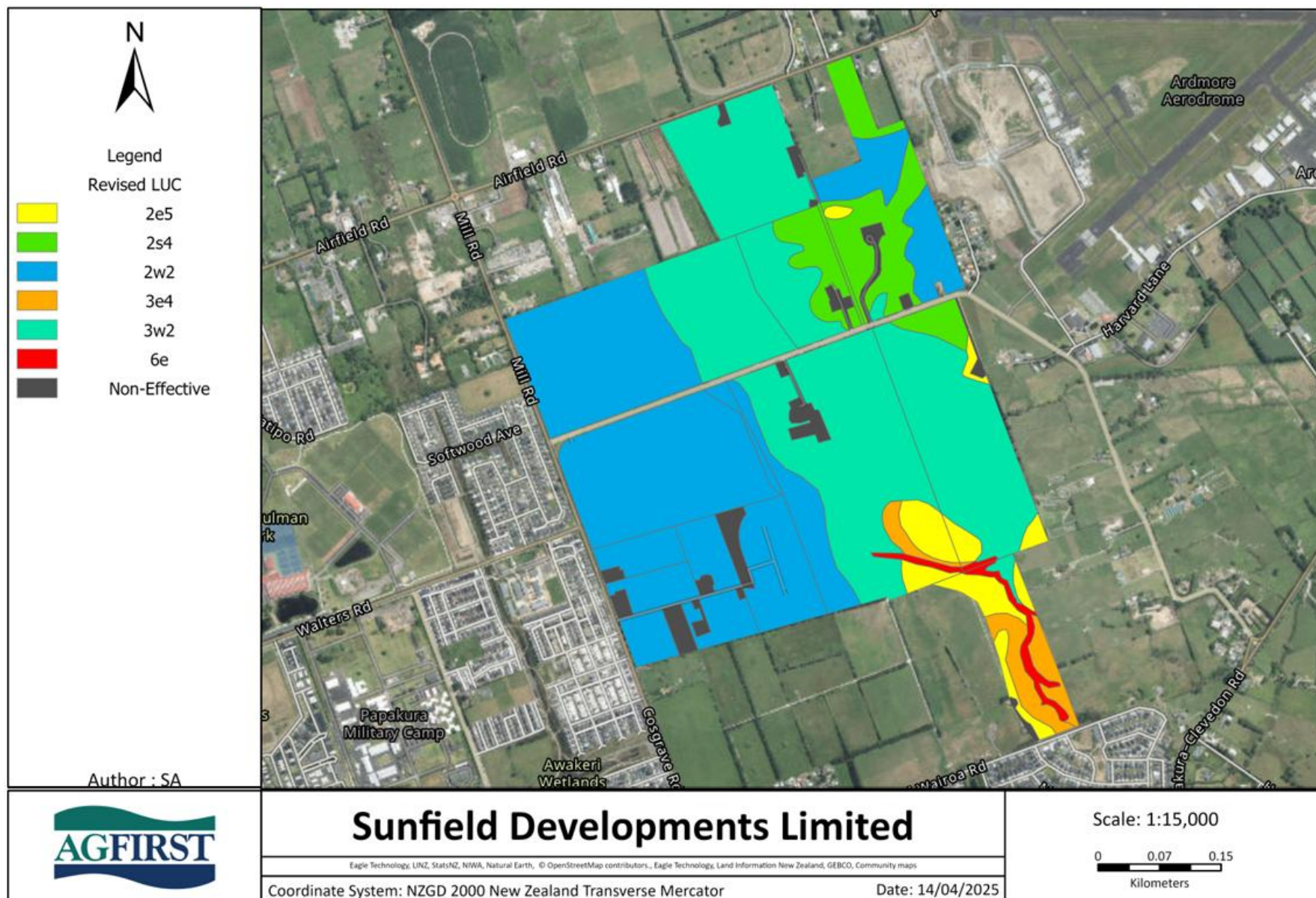


Figure 7: LUC classes mapped at property scale by Dr Singleton for the Sunfield site. Figure developed from Dr Reece Hill report.

5.5 Land Use Capability - Summary

The NZLRI maps identify the areas of HPL (LUC 2), with no areas of non HPL identified by the NZLRI maps on the Site. Having undertaken a site visit and considering factors such as residential areas, modified and anthropic soils, slope and areas occupied by streams and bush, it is considered that the area of HPL is much smaller than represented by the NZLRI maps. Based on site specific mapping as discussed in section 5.4 it is estimated that the area that is HPL is approximately 178.3 ha, with 66.2 ha being non-HPL (Non-Effective, LUC 6, and FUZ). This is presented in the revised HPL map (Figure 7).

As Figure 1 demonstrates, the HPL areas and surrounding land is significantly fragmented, with extensive rural lifestyle-sized lots, residential areas and non-HPL areas preventing any large contiguous areas from being consolidated (through boundary adjustments or amalgamation) to enable it to be viable for productive use. This compounded with low productivity and very high land value and rates associated with these properties mean economic viability is not possible.

Presented in Table 4 is the HPL as mapped by the NZLRI and the revised classification area.

Table 4: HPL areas within the Site

	NZLRI Classification area (ha)	Revised Classification area (ha)
HPL	188.0	178.3
Non-HPL (6e & FUZ)	56.5	58.7
Non-Effective	0.0	7.5
Total Site	244.5	244.5

Enabling further subdivision or development, as sought by SDL, on the land which is not identified as HPL (Non-Effective, LUC 6, and FUZ), is not subject to the NPS-HPL regime.

As discussed by Dr Reece Hill, “The assessment of land containing elite and prime soils should be undertaken based on the soil and land characteristics on the site as these can determine whether the site-specific land containing the soil meets all the criteria required to be elite and prime soil. Compared with other soils used for cropping in the Auckland and Waikato regions, the soils on the Site have greater limitations for use, which excludes them from being suitable for cropping and limits them to primarily pastoral use. The main differences between the soils on the Site and other soils used for cultivation and cropping, are a factor of parent material, soil genesis (soil development), topographic position, soil texture and structure, and soil drainage.”

6.0 LAND USE POTENTIAL

Properties that contain HPL require assessment against the NPS-HPL. However, for completeness, where there are productive areas available on non-HPL land (LUC 6), these areas have been assigned to an optimum land use (Figure 9) as they may contribute to the economic viability of the property. This is discussed in the NPS-HPL Guide to implementation, where a holistic approach is to be used for non-HPL areas.

In theory, the existence of Class 1, 2 and 3 soils means that the Development Site has potential for a wide range of agricultural and horticultural activities. However, in practice, some of the constraints, characteristics and limitations reduce the overall versatility of the Development Site.

As discussed in Section 3, the majority of the Development Site is currently used for land-based primary production, albeit in a largely extensive manner for a mix of lifestyle, equine and pastoral grazing.

While located within the MRZ, the lifestyle properties and equine centre are not used for land-based primary production and would not be suitable for any productive and commercial use beyond a small number of beef cattle or sheep grazing. The equine centre would be suited to continue with its current use, but much of this area is impacted by modified and anthropic soils.

The dry stock farming areas are not of large enough size and scale to be considered to be a potential economic unit, considering the average class 5 finishing farm within the northern North Island is approximately 255 ha. There are limited amalgamation opportunities for the properties, being surrounded by lifestyles blocks, roads, urban areas, an airport and industrial use land. While maize is occasionally grown within the block this would not be sustainable as a permanent arable cropping farm across much of the Development Site, due to the poor and very poor draining soils, and would work best as rotational cropping or pasture renewal. These properties would be considered challenging to farm during the winter and following any wet weather event, due to the underlying soils being poor and very poorly drained. Operators will need to consider the pugging vulnerability for heavier stock classes. Therefore, this area will be limited in land use versatility, with production types only suited to the existing pastoral grazing systems in addition to the small areas of arable land.

Present on the property is a First Gas, high-pressure gas transmission pipeline that is buried at a minimum depth of 900 mm in rural areas and 1.2 m in residential areas. This pipeline can restrict arable cropping operations such as cultivation, ripping and mole draining, therefore preventing practices that will mitigate the negative impact of the wet and poorly drained soils. This means improved land management strategies will have limited ability to overcome the long-term constraints. A map illustrating the location of the pipeline and the 25 metre exclusion required is shown in Figure 8.

AgFirst considers that the current land uses are likely to be the highest and best with regards to land-based primary production in the short to medium term. Taking a longer-term outlook (30+ years), it is unlikely that the properties that are grazing cattle will be used as a commercial farming operation, due to escalating farm working expenses, fixed costs and the location of the property in relation to Auckland. Continued losses at a farm level will not be economically sustainable, with the land likely being subdivided, purchased and used as separate lifestyle or hobby farms. The average land valuation for the MRZ properties across the Development Site is \$368,790 per ha, which is a magnitude more expensive than a commercial drystock farm or arable

block. As a comparison, a small scale beef finishing block with easy contour would be valued at \$30,000 - \$40,000 per ha, while an arable block would have an estimated land valuation of \$50,000 per ha. The land has been valued not on the land-based primary production or quality of the soil and land, but the location of the property for speculators and development opportunities. This is reflected with Auckland Council valuing the property in the same light, reflecting inflated rates and land values. With rapidly rising input costs, the returns for marginal farming operations will be reduced, therefore the long-term viability for these farms is untenable.

The key limitations for land-based primary production and versatility on the Development Site are:

- Poor and very poor draining soils across the majority of the Site.
- Limited optimal land available that is suitable for arable or horticulture.
- Neighbouring land to the west zoned Urban and developed into housing.
- Neighbouring land to the south zoned FUZ and Urban and developed into housing.
- Non-reversible land fragmentation to the north and within the Development Site.
- Ardmore Airport to the east.

The soil types across the majority of the Development Site do not lend themselves to any horticultural or commercial vegetable production land uses. AgFirst does not consider that horticulture is a reasonably practicable option for the Development Site. The poor and very poorly drained soils will likely have an impact with some crops not surviving, while others will have reduced yields. As mentioned by Dr Reece Hill, The soils on this site, particularly the Clevedon soils have heavy clay subsoils that are hard when dry and very sticky when wet, making cultivation for cropping very difficult, The structure of Clevedon soils is not conducive to root development for fruit trees and vines, nor is it favourable for cultivation due to the poorly drained heavy clay.

Essentially, more intensive and higher land uses (such as arable, horticulture and commercial vegetable operations) require free draining (or soils without rooting barriers) and relatively flat land. The greater the wetness limitation, the more impact on yield and crop survival. Free draining soils are not prevalent across the Development Site, therefore the versatility is vastly reduced. When drained and fertilised, the soils are suitable for pasture growth in autumn and spring, but summer yields may be limited by dry topsoil, and winter yields can be limited by saturation and pugging. These are defining limitations that restrict the land to primarily pastoral use

Figure 9 presents the optimal land use across the Development Site, this is based on AgFirst's opinion of land use versatility based on the constraints presented in this report.

6.1 New Zealand Transport Agency Designation Area

As part of this assessment, it is important to note that on 13 June 2025, NZTA lodged a Notice of Requirement (NoR) over a 19.4 ha portion of the Sunfield landholding for the development of a section of Mill Road Stage 2. This corridor is proposed to run along the eastern boundary of the Development Site and has been excluded from the productive land analysis due to its designation for future infrastructure.

The NoR affects two land titles, 9.8 ha of Part Lot 2 DP 22141 and 9.6 ha of Lot 8 DEEDS Whau 38. Of the total 19.4 ha, 9.8 ha had been classified as arable land and 9.6 ha as pastoral land. These areas are included within the existing land use totals of 18.1 ha of arable land and 162.5 ha of pastoral land across the wider Sunfield property.

Once the NoR area is excluded, the remaining productive land area will reduce to approximately 8.3 ha of optimal arable land and 152.9 ha of pastoral land. This represents a significant reduction in the arable land use (approximately 54%) which will have implications for the site's productive capacity, versatility and economic viability. The reduction in pastoral land is less pronounced in proportional terms, at around 5.9%, but still notable in the context of whole-farm economic viability. With the NoR, there will be an additional 19.4 ha of land which will be considered as non-effective. This area is shown in Figure 9 and Figure 10 below, the revised areas for HPL with the designation taken into consideration is shown below (Table 5). The overlay of the NoR in relation to productive areas is shown on the optimal land use map in Figure 9. The Schematic of the Development Site is provided in Figure 10.

Table 5: HPL areas within the Site

	NZLRI Classification area (ha)	Revised Classification area (ha)
HPL	188.0	158.9
Non-HPL (6e & FUZ)	56.5	58.7
NZTA NoR	0	19.4
Non-Effective	0	7.5
Total Site	244.5	244.5

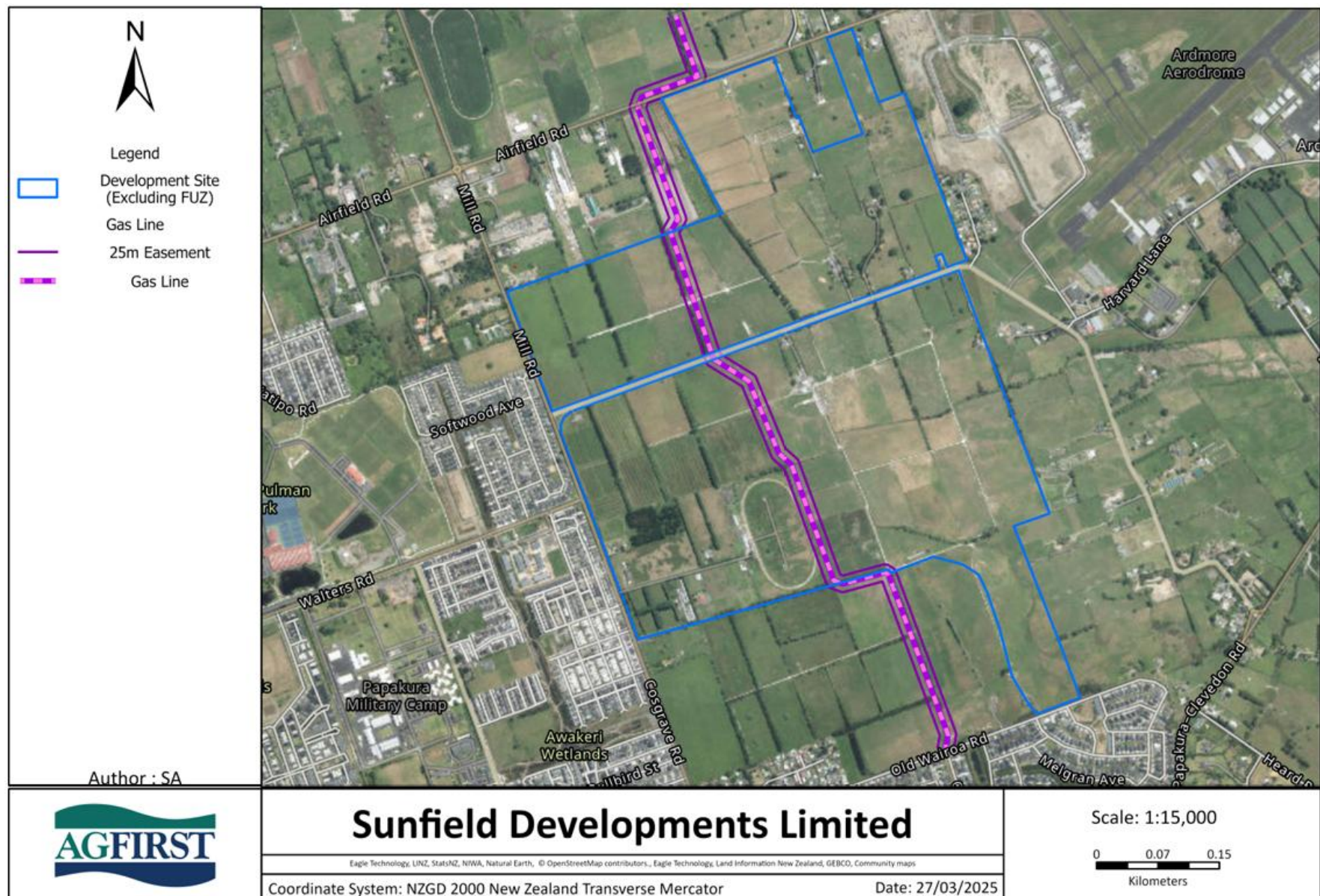


Figure 8: High Pressure Gas Pipeline Location

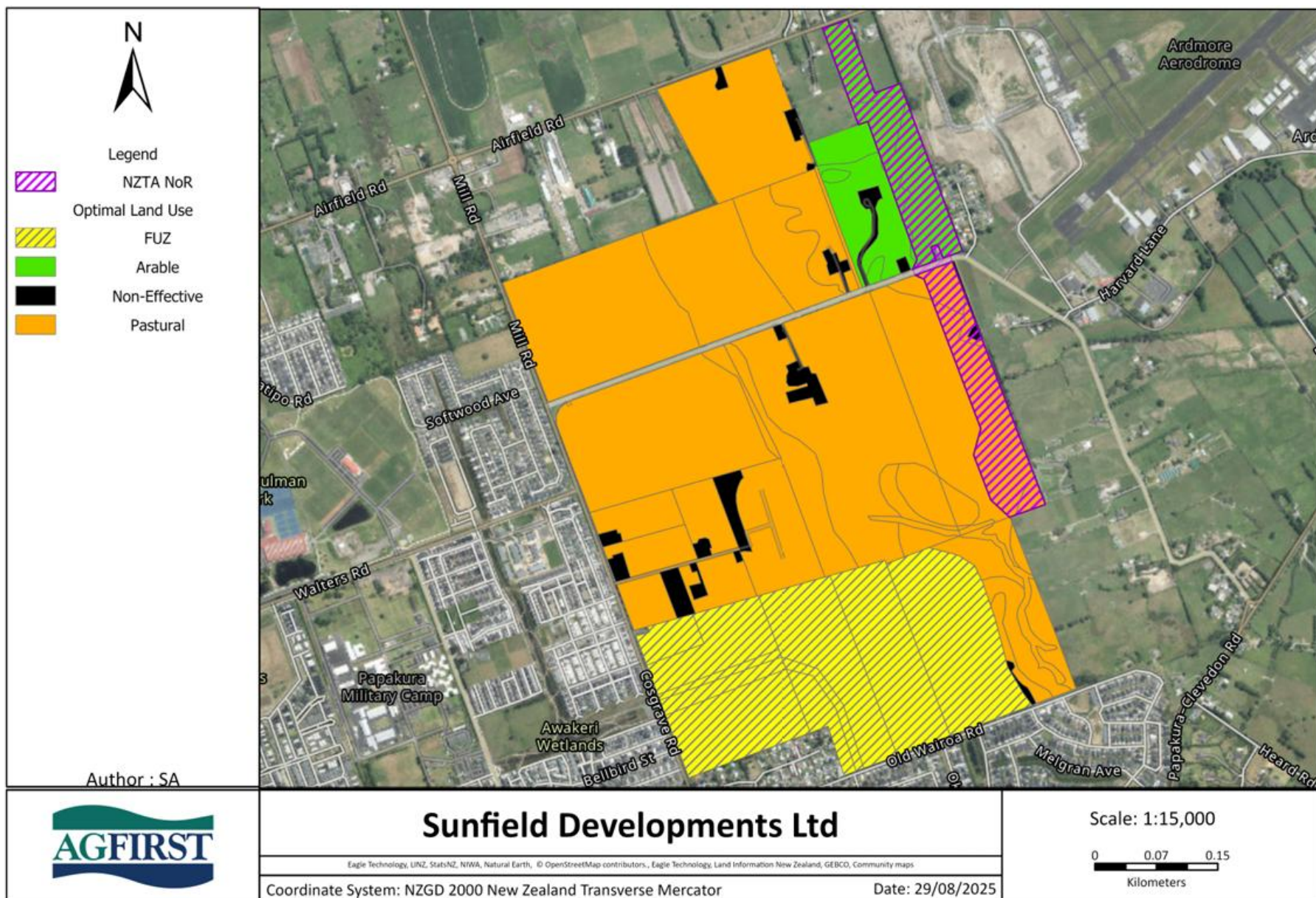


Figure 9: SDL optimum land use map



Figure 10: NZTA NoR Designation Area

Summary

To assess the economic viability of the various operations, AgFirst has estimated the profitability of the following optimal land-based primary production operations (as shown on Figure 9). This is based on the highest and best use for the various land classes to ensure a sustainable long-term production.

For the Development Site, there were only two land-based primary production operations that were identified as being reasonably practicable. These are listed below:

- Pastoral grazing – beef finishing
- Arable – maize grain

Pastoral grazing is a land use that while not necessarily profitable, does occur across a range of sizes, soil types and contour. Management practices can be applied for poorly drained soils and areas with steeper contour, such as the use of lighter stock classes and on-off grazing. As the majority of the effective areas within the Development Site have some form of current grazing system, either as equine, cattle grazing and hobby/lifestyle farming, the economic modelling has assumed no additional capital investment into this land use. i.e. stock drinking reticulation, fencing and power, stock yards etc.

Arable operations are more limited and require better soils and gentle contours. While there has been evidence of rotational arable cropping across the Development Site, this does not directly determine that these areas are suited to a permanent and back-to-back cropping regime. Rotational cropping is often a singular event and used for pasture renewal and providing feed buffers. In general terms, AgFirst considers that permanent arable cropping has the following physical land and soil requirements: gentle or flat contour, well drained soils to prevent water logging, and loamy soils which provide good drainage and nutrient retention. As determined by the soil experts that have mapped the Development Site (Section 5.4 and Appendix A and Appendix B), there is very little land that fits this category. The arable land use is located to the northeast of the Development Site, where the dominant classifications are LUC 2s and LUC 2e.

Pastoral grazing

To assess the existing and proposed livestock operations and returns, AgFirst have used the Class 5 northern North Island Intensive Finishing operation from the Sheep and Beef Farm Survey presented by Beef and Lamb New Zealand (B+LNZ)³. The B+LNZ data shows that the average farm size is 255 ha (average for last 5 years). AgFirst has collectively assessed a total area within the Development Site that is suited for pastoral grazing, which is 152.9 ha. It is unlikely that the operations within the Development Site will be as profitable as the economic data presented in the B+LNZ data due to the smaller scale and less ability to dilute the operational costs, it provides a conservative analysis if the effective areas were to be amalgamated into a single economic unit. The 5 year average Economic Farm Surplus (EFS) for a northern North Island Class 5 finishing farm is \$817.55/ha. Note that this is excluding the individual property rates, managerial salaries, interest on the property and assets, and any rental return. This is presented in Table 6.

³ [Sheep & beef farm survey | Beef + Lamb New Zealand \(beeflambnz.com\)](https://beeflambnz.com/)

Table 6: Beef finishing Economic Farm Surplus

Beef + Lamb New Zealand Economic Service						
Sheep and Beef Farm Survey - \$ Per Hectare Analysis						
Class 5 N.I. Finishing - Northland-Waikato-BoP						
					Provisional	
	2019-20	2020-21	2021-22	2022-23	2023-24	5 yr average
Revenue Per Hectare						
Wool	12.3	9.22	18.24	15.62	24.84	16.04
Sheep	258.35	213.49	364.17	421.2	404.4	332.32
Cattle	1346.73	1164.28	1326.02	1133.2	952.52	1184.55
Dairy Grazing	84.62	116.41	118.13	117.52	150.63	117.46
Deer + Velvet	-0.82	-0.18	0.12	-0.05		-0.23
Goat + Fibre						
Cash Crop	420.11	419.45	395.12	260.59	346.54	368.36
Other	58.63	101.61	53.46	95.92	71.07	76.14
Total Gross Revenue	2179.93	2024.29	2275.26	2044	1950	2094.70
Expenditure Per Hectare						
Wages	129.33	154.35	163.91	174.04	182.39	160.80
Animal Health	53.41	59.95	71.38	61.68	68.03	62.89
Weed & Pest Control	18.67	16.7	29.71	26.26	24.21	23.11
Shearing Expenses	14.48	16.85	17.93	28.03	34.55	22.37
Fertiliser	255.35	238.41	296.08	316.67	354.4	292.18
Lime	19	21.91	20.77	12.72	23.9	19.66
Seeds	56.24	88.42	63.66	50.36	50.94	61.92
Vehicle Expenses	52.72	51.66	58.79	53.52	54.4	54.22
Fuel	39.32	43.27	55.43	58.65	59.12	51.16
Electricity	11.7	13.91	13.83	11.61	11.95	12.60
Feed & Grazing	110.46	106.8	118.67	72.84	62.89	94.33
Dog expenses	9.36	12.45	11.01	9.25		10.52
Irrigation Charges						
Cultivation & Sowing	33.57	34.54	28.78	23.94	24.53	29.07
Cash Crop Expenses	35.93	50.38	30.96	15.55	16.35	29.83
Repairs & Maintenance	109.4	146.91	145.02	119.46	119.5	128.06
Cartage	31.19	41.18	42.66	46.34	47.17	41.71
Administration Expenses	36.65	46.61	51.06	45.56	45.6	45.10
Total Working Expenses	1016.8	1144.3	1219.65	1126.47	1179.94	1137.43
Insurance	23.49	25.18	27.46	27.01	28.62	26.35
ACC Levies	5.78	15.98	10.62	8.84	9.43	10.13
Rates	Rates with adjustment based on tax accounting methodology (rates - house & curtilage area)					
Managerial Salaries						
Interest	Included at a property level economic analysis					
Rent						
Total Standing Charges	29.27	41.16	38.08	35.85	38.05	36.48
Total Cash Expenditure	1046.07	1185.46	1257.73	1162.32	1217.99	1173.91
Depreciation	103.18	119.46	98.59	100.57	94.34	103.23
Total Farm Expenditure	1149.25	1304.92	1356.32	1262.89	1312.33	1277.14
Economic Farm Surplus	1030.68	719.37	918.94	781.11	637.67	817.55

Arable - Maize

Arable operations, such as maize grain businesses require good soil resources (free draining soils), easy access for machinery and easy contour. Maize grain rotations are also part of commercial vegetable rotations, therefore are widely established within the region. Arable grain has been used for the analysis, on the assumption that this is an independent business rather than a rotational maize silage operation growing supplementary feed. The total area within the Development Site that AgFirst believes is suitable for long-term production of arable cropping is 8.3 ha.

To assess the potential arable operations, AgFirst has calculated a typical maize grain operation, based on the landowner using contractors. The maize grain yields are assumed to be an average of 12.5 tDM/ha. To help determine the grain sales cost, AgFirst has reviewed the past five years grain price. These were:

2020	\$370
2021	\$385
2022	\$425
2023	\$600
2024	\$425

The average for the previous five years is \$441. This is also influenced by the \$600 outlier from 2023, when the prices hiked on the back of the Russian invasion of Ukraine. To further support this, NZ Starch have announced that they can land imported grain for \$460/t into Auckland.

The Pioneer gross margin has been used to determine the likely input costs (Annexure C). The financial budget for the arable model, represented as a per ha EBITRm is presented in Table 7.

The budget assumes that the arable blocks are capable of yielding 12.5 tDM/ha of maize grain at an average price of \$441 per tonne. The forecast total EBITRm per ha (not including fixed property costs such as rates) is \$766.44 per ha.

Table 7: Arable EBITRm

Maize grain		\$ Total	Source: Pioneer Gross Margin 2022-2023
Area (ha)		8.32	Effective arable block
Revenue	Maize Grain Sold	45,864	12.5tDM yields sold at 44.1 cents
Total Revenue		45,864	
Operating Expenses	Maize Seed	5,483	Maize seed, poncho and FAR levy
	Maize Establishment	6,228	Cultivation and planting
	Maize Herbicide	2,392	Contractor and spraying
	Maize Fertiliser	10,557	Soil testing, lime and nutrient replacement costs - based on the 8% crude protein and current fertiliser prices
	Harvest	4,160	Combine harvest contractor costs
	Cart and Dry	7,620	Cartage and drying cost
	Wages	1,000	Assume 20 hrs per year @ \$50 per hr
	Repairs & Maintenance	1,448	Lincoln Financial Budget Manual, Volume 41 (\$174 per ha for arable)
Total Operating Expenses		38,888	
Fixed Expenses	Administration Expenses	599	Lincoln Financial Budget Manual, Volume 41 (\$72 per ha for arable)
	Insurance		Negligible as no machinery or buildings
Total Fixed Expenses		599	
Depreciation			Negligible as contractors used
Total Expenses		39,487	
EBITRm		\$ 6,377	Total Earnings Before Interest, Tax, Rent, and Management Wage
\$EBITRm/ha		\$ 766.44	Per effective ha

6.3 Economic Viability

The productive income for each property has been assessed at a property level. This is based on an assessment of the quality of soils and land, effective area available within each parcel and suitability for reasonably practicable alternative land uses. The highest and best (or optimised) productive system has been identified for each property along with the effective area available for each land use (in the case where there are multiple land classes, slopes and soils, there has been variety of land-based primary production options proposed). The areas suited to each land use have been multiplied by the respective gross margins, to provide a prorated estimated income for each property.

For conservatism, non-HPL (LUC 6) and lifestyle areas have been given a pastoral grazing EFS, on the assumption that a small number of sheep or cattle can be run.

The property information was obtained from Auckland Council, which is presented in Table 8. The rates have been calculated for the estimated portion of the land that is available for land-based primary production, i.e. excluding the area occupied by the house and curtilage. This is a standard methodology for tax deductibility purposes for assessing rates. The property rates were then subtracted off the combined operational profit to provide a total return for each property.

The definition and methodology to determine economic viability has been presented at the NZ Agricultural and Resource Economics Society Conference in 2024⁴ and published in the New Zealand Institute of Primary Industry Management (NZIPIM) journal. The term “economically viable” is used to describe a project that provides an overall positive net economic contribution to society after all costs and benefits have been accounted for. When researching commercial viability, the Cambridge dictionary defines it as “the ability of a business, product, or service to compete effectively and to make a profit.” Compete effectively and make profit identifies the need to cover real-world and genuine costs. Only then can it be determined if an operation is economically viable. This is different to having a positive gross margin, EFS or EBITRm.

To be economically viable, AgFirst suggests that the income from the farm needs to be sufficient to cover:

- i. Operating costs, e.g. wages, animal health, fertiliser, repairs and maintenance, etc
- ii. Fixed costs such as rates, insurance, administration.
- iii. Depreciation cost
- iv. A surplus then available that is sufficient for:
 - a) debt servicing and debt repayment or an appropriate return on the capital investment if there is little or no debt, or the lease cost if the property is not owned by the operator;
 - b) ongoing maintenance and development of the farm and the business.

Land value is not zero. Essentially, the farming business needs to produce a return on investment and/or adequate debt servicing, or the cost of leasing the property. At least one of these will be an essential requirement of any economically viable enterprise. A viable farming

⁴ [Journeaux - Definition of Farm Economic Viability.pdf](#)

operation in the real world must be one that an objectively reasonable person would choose to undertake.

To remove subjectiveness, for this assessment AgFirst has used (i) to (iv) (a) above, adopting a debt servicing allowance, to understand the economic return and viability from the land-based primary production for the various properties and the overall viability for the Site.

In assessing the debt servicing required, the land value has been used rather than the improvement and capital value, to understand the profitability required for an agricultural business to service the relevant level of debt. For this assessment the debt loading has been assessed at 30%, which is a typical level of farm lending. Interest rates have been assumed as a long-term average of 7%⁵. Note that principal repayments have not been included in the liabilities. This financial analysis, including individual property rates and land valuations are presented in Table 7.

There appears to be differences of views with regard to the interpretation of economic viability and the application of subclause 3.10(3)(a) of the NPS-HPL. This subclause 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 exist*’⁶. The current and existing state of the properties without change is that they are mostly lifestyle properties, and have a land valuation which is assessed by the local authority. As the Council does not come out and inspect properties in person, these values are calculated using the data and information that the Council has access to. This information includes analysing:

- Property type
- Location
- Land size and topography
- Zoning regulations
- Floor area
- Consented work (renovations, new build, subdivisions etc)
- Data from comparable sales in the area

It also estimates the Land Value (RV), which is the most likely selling price of the land if it was vacant (had no buildings etc. on it).

These valuations would not be considered potential, as they are an estimate of the actual value. Therefore, using the council land valuation as a proxy for debt loading or as a return on

⁵ 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 bank bill monthly average yield

⁶ <https://dictionary.cambridge.org/dictionary/english/potential>

investment would not contravene Subclause 3.10(3)(a). The property rates are also a metric of the property valuations and are a true cost that are incurred by the landowners. These rates are not discounted by councils because the properties are used for land-based primary production, therefore AgFirst believes that the use of the land valuations is a true and accurate reflection of the real world to help determine economic viability.

The land value in this area has been positively distorted due to residential areas bordering the Development Site. Due to this, and the limited productive capacity and effective areas available for land-based primary production, the productive land uses for the Development Site do not return enough income to service typical debt levels. This is particularly important, as the analysis shows that none of the properties would be considered an attractive proposition for any investor or farmer to purchase any of the land for the sole purpose of land-based primary production. This strengthens the proposition that there are no reasonably practicable options to overcome economic viability. The properties across the Development Site are still not economically viable in their current operation or highest and best use for land-based primary production for at least 30 years.

There are no more profitable alternative options for these land parcels that are reasonably practicable. This is supported by the total profit column in Table 8, which shows none of the properties within the Development Site are economically viable. An assessment to understand if the long-term constraints and economic viability can be overcome through reasonably practicable options is detailed in Section 6.7.

Table 8: Economic viability of all properties for land-based primary production

Map Ref	Property ID	Zone	Rates	Optimised Land Use Areas (ha)				EFS / EBITRm for Property	Economic Viability Test (\$)		
				Grazing	Arable	Non-Effective	Total Effective		Ratable Land Value	Total Property Liabilities	Economic Viability
	1 Lot 1 DP 103787	MRZ	\$ 10,370	2.8		0.3	2.8	\$ 2,265	\$ 5,500,000	\$ 125,870	-\$ 123,606
	2 Lot 1 DP 21397	MRZ	\$ 9,405	30.7			30.7	\$ 25,107	\$ 4,886,793	\$ 112,027	-\$ 86,920
	3 Lot 2 DP 103787	MRZ	\$ 10,411	2.6		0.4	2.6	\$ 2,158	\$ 5,500,000	\$ 125,911	-\$ 123,752
	4 Lot 2 DP 199521	MRZ	\$ 11,350	13.8		0.7	13.8	\$ 11,250	\$ 5,200,000	\$ 120,550	-\$ 109,300
	5 Lot 2 DP 21397	MRZ	\$ 3,096	9.7		0.5	9.7	\$ 7,889	\$ 1,609,698	\$ 36,900	-\$ 29,010
	6 Lot 3 DP 103787	MRZ	\$ 10,127	2.8		0.3	2.8	\$ 2,256	\$ 5,500,000	\$ 125,627	-\$ 123,371
	7 Lot 4 DP 103787	MRZ	\$ 17,803	7.4		1.2	7.4	\$ 6,058	\$ 10,000,000	\$ 227,803	-\$ 221,745
	8 Lot 5 DP 103787	MRZ	\$ 10,734	2.7		0.4	2.7	\$ 2,167	\$ 5,500,000	\$ 126,234	-\$ 124,068
	9 Lot 5 DP 12961	MRZ	\$ 10,997	34.6		0.8	34.6	\$ 28,287	\$ 5,715,282	\$ 131,018	-\$ 102,731
	10 Lot 6 DP 103787	MRZ	\$ 9,965	2.1		0.9	2.1	\$ 1,733	\$ 5,500,000	\$ 125,465	-\$ 123,732
Shared driveway	Lot 7 DP 103787	MRZ	-			0.2					
	11 Lot 8 DEEDS Whau 38	MRZ	\$ 8,054	12.7		9.7	12.7	\$ 10,367	\$ 3,950,000	\$ 91,004	-\$ 80,637
	12 Part Allot 32 PSH OF P	MRZ	\$ 7,184	9.4		0.2	9.4	\$ 7,669	\$ 3,945,763	\$ 90,045	-\$ 82,376
	13 Part Lot 2 DP 22141	MRZ	\$ 5,819		8.3	10.7	8.3	\$ 6,377	\$ 3,023,751	\$ 69,317	-\$ 62,941
	14 Part Lot 4 DP 12961	MRZ	\$ 6,667	21.8			21.8	\$ 17,798	\$ 3,464,476	\$ 79,421	-\$ 61,623
TOTAL				152.9	8.3	26.3	161.2	\$ 131,381	\$ 69,295,763	\$ 1,587,194	-\$ 1,455,813

6.4 Permanent or Long-Term Constraints

The various landholdings within the Development Site form several categories with regard to the highest and best use when regarding land-based primary production.

- Lifestyle and residential blocks
- Pastoral grazing land
- Arable operations

Lifestyle and residential blocks

These properties are realistically only able to be used for residential purposes. There are production constraints due to the size of the properties, complicated further by the extent of existing residential development, the location of that development within the properties, the proximity of dwellings to any potentially productive land and the inevitable constraint that these properties simply will not in practical terms ever be used for any rural productive activity.

The key constraint for these properties is non-reversible land use fragmentation. The areas are not economically viable due to the lack of land available for land-based rural production and marginal returns with small scale operations. Off-site effects and sensitivity impacts will also deter these properties from being used for any higher and better land use.

Pastoral grazing

These properties are constrained against productive use in a very similar way to the lifestyle properties. One key constraint is non-reversible land use fragmentation. The optimal pastoral grazing land use has been considered as a 'holistic' scenario with an amalgamated area suitable for pastoral grazing of 152.9 ha. It needs to be noted that this is across 13 separate properties, with the largest effective area of being 34.6 ha. On their own, these areas are not viable to be considered an economic unit, however, for the purpose of the assessment have been amalgamated. Realistically the returns to each individual landowner will be much lower than that presented in the economic analysis due to the lack of land available and marginal returns with small scale operations.

The prospects of amalgamation of any of the undeveloped, potentially productive land is very low. These properties are owned and occupied so that people have separation from neighbours and from farming activities. The land is used to maintain open space and a rural aspect, without the added complications of stock management, maintenance, investment in horticulture, dust, noise and other effects that conflict with rural residential lifestyle and amenity.

Arable

There is currently minimal area that is suited for the long-term use of growing arable crops. While there is evidence of rotational maize cropping, this is an intermittent land use and largely used for two purposes, growing additional supplementary feed for the stock, and renewing pastures.

As discussed in Section 5.4 and Section 6, continuous and back to back arable cropping required very good geophysical characteristics, which include flat to undulating land and well drained soils. As there is very little infrastructure required for arable operations, parcel sizes can be relatively small, however, they need to be appealing to attract contract growers, contractors or lessees. In AgFirst's opinion, this would be no smaller than 4 ha. Using this defined criteria,

there is only one area within the Development Site that would be suitable for a permanent arable cropping operation. The initial arable area was identified at 18.1 ha, however due to the NZTA NoR the area was reduced to 8.3 ha.

All other areas are constrained by Size, Slope (3e and 6e) or Wetness (2w and 3w). These constraints would result in an unsustainable land use (erosion and compaction of soils), crop survival issues (high watertable), overall reduced yields (wetness limitations), narrow cultivation and harvesting windows due to soil wetness, access challenges with heavy machinery and locations in relation to nearby receptors for off-site nuisance dust, noise and vermin effects.

While the areas mapped for arable contain prime soils, they are constrained by scale and non-reversible land fragmentation. With these blocks bounded by housing, there is a significant risk of dust becoming an issue during cultivation and harvesting, particularly during windy and often dry times of the year - spring and autumn. There are very few additional mitigations that can be undertaken to prevent these offsite effects, as the soil remains exposed at cultivation and harvest until the maize is established to a certain height, or new pastures have been sown to shield soil loss from the wind. While shelterbelts can reduce impacts, there needs to be consideration of the district plan provisions around shelterbelts and shadowing rules. Another issue for arable crops near residential settings is the attraction of rodents and vermin. These populations can be prolific, and post-harvest they are forced to go in search for food. Due to the proximity of residences, in this case the likely target will be households.

Part of the challenge for the owners of these properties is to attract long term lease agreements or contractors as the landowners do not have the agricultural skillset, time or machinery to manage any primary operation. Due to the constraints described and the lack of scale, there is a declining appetite for leasing or engaging contractors for these small blocks. This is largely due to inefficiency factors and practicalities with getting equipment into unsuitable areas and carting product for very small gains, and the diminishing economic returns. There is also the issue of increasing disruptions and complaints relating to the activities undertaken on these areas.

Another problem that contractors face for small blocks, such as those included in the assessment with nearby receptors, is flexibility. With a very compacted planting and harvesting season, contractors frequently work through the night with a combine harvester and often two to three tractors with trailer units all operating at once. This causes noise issues when the block is surrounded by houses, with operational hours reduced to daylight hours. As is often the case with small blocks, more focus is put on larger operations, with planting and harvesting times for small blocks being compromised, leading to poorer yields. A maize block located this close to residential developments would unlikely have a long-term viability and would ultimately be forced to change to a less impacting operation. These types of operations can revert back to pastoral grazing (now with capital costs for infrastructure) or as pasture conservation operations (cut and carry pasture silage).

With regard to land-based primary production opportunities across the majority of the Development Site, arable, horticulture and cut and carry operations would be unviable, both economically and physically. This is due to the small scale, machinery access and exposure of the surrounding dwellings and outdoor living areas, in combination with physical factors of poorly and very poorly drained soils limiting land use to pastoral grazing activities.

Summary

The Development Site has remained typically as a pastoral animal grazing as the highest land use. Land based primary production is economically unviable on the Development Site because of the following long-term and permanent constraints:

➤ Non-reversible land fragmentation

- » This is due to the significantly fractured Site, and surrounding areas.
- » The size of the properties do not lend themselves to any economically viable operations, with the largest property being 35.9 ha and an average parcel size of 13.4 ha (or average effective area of 12.9 ha).
- » The NoR designation along the east of the Development Site that removes a significant amount of the best land available for arable use.

➤ Slope

- » There are some areas within the Development Site that have slope characteristics of greater than 15 degrees, rendering the land unsuitable for highly productive use. The LUC survey handbook⁷ defines strongly rolling slopes and greater (> 15 degrees) as being LUC 4 or higher.
- » Slopes greater than 15 degrees are deemed unsuitable for arable, while slopes greater than 10 degrees are unsuitable for CVP and horticulture.
- » This creates further fragmentation, as the areas with slope constraints limit the scale and size of higher land uses.

➤ Soil

- » The Development Site has a large area of poorly and very poorly drained soils across the majority of the Site. While these soils are still likely to be considered HPL, the significant wetness limitations will impact the versatility and productive capacity of these areas.
- » The imperfectly drained soils across the Development Site are also a limitation for horticulture and CVP, where year round and permanent cropping is undertaken.

The soil types across the majority of the Development Site do not lend themselves to any horticultural or commercial vegetable production land uses. AgFirst does not consider that horticulture is a reasonably practicable option for the Site. The drainage of the soils and high watertable will likely have an impact with some crops not surviving, while others will have reduced yields.

Essentially, more intensive and higher land uses (such as arable, horticulture and commercial vegetable operations) require free draining (or soils without rooting barriers) and relatively flat soils. The greater the wetness limitation, the more impact on yield and crop survival. Free draining soils are not prevalent across the Site, therefore the versatility is considerably reduced.

^{7 7} 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.

6.5 Avoidance of Significant Loss, Fragmentation and Reverse Sensitivity

As the productive area of the Development Site extends across 24 different properties, the majority of the land is not currently capable of being utilised for any viable land-based primary production. The largest effective area of a title suitable for primary production is 34.6 ha. Based on the NZLRI, the entirety of the Development Site that is zoned MRZ is HPL (188.0 ha). However, this does not translate to a significant loss, due to the constraints outlined in Section 6.3 and the fact none of the properties (individual or aggregated) are economically viable. While defined as HPL under the transitional definition, due to the constraints identified and non-reversible land fragmentation, many of these areas would unlikely be considered HPL when remapped at a more suitable scale. Of this total area, 152.9 ha has been assessed as containing or have some suitability for pastoral grazing activity. While none of the properties are currently arable operations, AgFirst has estimated that approximately 8.3 ha would be suitable for these purposes on a long-term sustainable basis. The total area of non-effective land is estimated as 26.9 ha. This includes dwellings, curtilage, driveways and tracks, sheds (see Figure 7), and NZTA NoR areas (Figure 10).

Productive capacity (see Section 4.0) means the ability of the land to support land-based primary production over the long-term. The significant constraints and isolation of the HPL significantly reduces the productive capacity due to the existing rural lifestyle, subdivisions and surrounding future residential zoning and Ardmore Airport. Enabling further subdivision as sought by SDL will not result in any significant loss of productive capacity within the district, both individually and cumulatively. Due to the significant permanent and long-term constraints for the Development Site, the land cannot function or perform to HPL standards and has limited productive capacity. From a land-based primary production and productive capacity perspective, it would be a far better option to develop this Site compared to alternative greenfield sites with fewer constraints and higher production potential.

With regards to LUC classes within the Auckland Region, there is an estimated 124,716 ha of HPL⁸, which is 7.7% of the total area. However, it is 28% of land that is not of 'town' classification. The LUC breakdown for the district is presented in Figure 11. The largest area of HPL within a property is 34.6 ha, which is 0.017% of the available HPL within the district. While cumulatively and as mapped by the NZLRI, there is 188.0 ha of HPL, which is 0.15% of the district HPL. Neither of these would be considered as a significant proportion of loss within the Region, particularly given the unviable long-term productive capacity of the Development Site.

⁸ Manaaki Whenua – Landcare Research. Our Environment, Territorial Authorities, Auckland District LUC map. 40 | Page

Land Use Capability

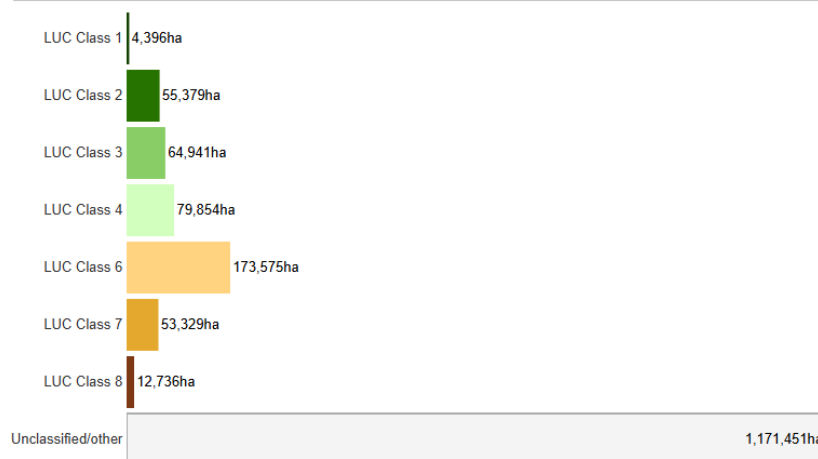


Figure 11: Summary of Land Use Classification within the Auckland Region

With regard to avoiding fragmentation of large geographically cohesive HPL areas, the Development Site is already significantly fragmented, and as discussed large contiguous HPL areas do not exist. This is due to the extensive rural lifestyle subdivisions, urban development and the separation of contiguous areas due to slope and physical separation.

No sensitive activities are proposed as part of the application which might give rise to effects on relevant and existing “effect generating activities”. The proximity to neighbouring receptors within the Development Site already has an impact on the versatility of primary productive uses. Considering the future residential zone to the south of the site, any future activity would have to consider these developments.

Enabling further subdivision of the Development Site will not cause a significant loss (individually or cumulatively) of productive capacity of HPL in the Region. The proposed urban development also avoids fragmentation of HPL as this already exists to a significant extent. There will be limited reverse sensitivity effects on the surrounding land-based primary production, as the surrounding land is already zoned residential, airport or future urban, or is subjected to close receptors through development and subdivisions.

6.6 There is a Net Benefit from the Urban Development proposed on the Site

Environmental

As the productive capacity is severely constrained across the Site, with large amounts of fragmentation, wetness and soil limitations preventing higher productive land uses, the net change will be minimal. However, the nutrient losses to ground and surface waters should slightly improve following the proposed development. Horticulture and arable crops, have higher fertiliser requirements, with typical nitrogen leaching rates greater than 100 kg nitrogen loss per ha (kgN/ha). A large spike of nitrogen is often leached at cultivation for arable operations, due to the timing of heavy fertiliser applications and the mineralisation of soil nitrogen when the soil is aerated (without a cover crop being established to uptake the nutrients). There is also increased risk of sediment and phosphate losses when the soils are cultivated, particularly on sloping land. For the pastoral grazing areas, as there is no fallow soil, and fertiliser is applied in smaller quantities as required, the nitrogen losses are less significant. The low intensity of these grazing operations would be expected to be low impacting.

Considering that there is a large proportion of the Development Site that has been classified as peat soils, AgFirst has referred to some literature by Manaaki Whenua – Landcare Research Peatland / peat subsidence control⁹ to discuss the environmental impacts associated with farming on peat. A summary of this is provided below.

Peatland Formation & Importance

- Peat soils are major carbon stores, formed under wetland conditions where decomposition is slow.
- Drainage for agriculture lowers water tables, leading to subsidence and CO₂ emissions.

Extent & Impact in New Zealand

- Drained peatlands contribute up to 8% of NZ's net greenhouse gas emissions.
- Subsidence persists until peat is lost, creating mineralised soils.

Historical & Future Trends

- Large-scale drainage began in the early 1900s, accelerating with mechanisation in mid-century.
- No further expansion expected due to policy, but subsidence on drained land will continue.

Impact of Intensive Farming & Cultivation

- Intensive farming practices, especially cultivation for cropping and pasture renewal, greatly accelerate peat decomposition and subsidence.
- Limiting cultivation is critical for slowing peat loss and maintaining soil structure.

Subsidence & Recovery Rates

- Subsidence occurs at ~20 mm/year, while peat regrowth is ~1 mm/year – recovery takes centuries to millennia.

Mitigation Potential

- Rewetting peatlands can halt subsidence within a generation, though GHG benefits remain uncertain due to possible CH₄ and N₂O increases.

Management Challenges & Needs

- Areas such as Hikurangi and Hauraki face economic pressures as farming becomes less viable due to high soil moisture.
- Lack of a national strategy; decision-support tools and policy incentives are needed to guide land-use change.

Social

With the majority of the current land-based primary production being pastoral grazing, there is very little employment other than the requirement of property owners to shift and manage their own stock. The proposed urban development will provide for additional houses, with improved employment generated, recreational areas created, therefore resulting in an improvement in social outcomes.

Cultural

There are no sites of cultural significance within the proposed development area. While this is not a 'benefit', there are no adverse cultural effects either. The minor improvements in

⁹ Pronger, J. (2024). Peatland/peat soils subsidence control. In: Lohrer, D., et al.

environmental improvements, such as reduction in nutrient leaching could also contribute towards cultural improvements, for example mahinga kai sites.

Economic

The estimated economic benefits of the proposed development will significantly improve the economic viability of the Site as addressed in Sections 6.1 and 6.2 above in this report. Currently none of the properties are economically viable with regard to land-based primary production.

Will benefits outweigh the costs?

Yes, the property is currently operating at an economic loss. It is considered that this will change into an economic gain as a result of the proposed urban development of the site. The proposed urban development will provide for an improvement in social outcomes, including a significant increase in the supply of residential accommodation and associated retail, commercial and service activities, additional local employment opportunities, a local school and a high quality, connected open space and transport network. The proposed development will also result in environmental improvements, such as reduction in nutrient leaching, restoration of native vegetation and ecological habitats and stormwater/flooding mitigation measures. These environmental, social, cultural and economic benefits from the proposed urban use of the Development Site are considered to be positive.

Overall, it is considered that the benefits of enabling the urban development of the Sunfield site will outweigh any benefits associated with the current and future use of the land for productive purposes.

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.

6.7.1 Alternative Options to Retain Productive Capacity

This assessment includes addressing alternative forms of land-based primary production in order to overcome the permanent long-term constraints on economic viability. These alternative options include: dairy farming or dairy support; arable; CVP and horticulture.

AgFirst has mapped the Development Site for the highest and best land use, based on 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. To overcome some of the fragmentation constraints due to property boundaries and small scale, AgFirst has reviewed if amalgamation and boundary adjustments would overcome the constraints. The optimal land use maps for the Development Site are presented in Figure 9. The following section discusses the alternative forms of land-based primary production and whether they will overcome the constraints. The economic viability of these optimised land uses for each of the individual properties are presented in Table 7.

Despite the alternative land-based primary production systems, these optimised productive systems do not overcome the economic viability of the Development Site, with all of the individual properties showing a loss in profitability when looking at economic viability. To

demonstrate the economic viability, the effective areas suitable for the various land uses within each individual property have been multiplied by the estimated returns (Section 6.2).

Dairy farming or dairy support

Dairy farming or Dairy Support is not a reasonably practicable option due to:

- There are no dairy farms within the Development Site, nor adjacent dairy or dairy support farms for amalgamation.
- Significant investment will be required to build / upgrade dairy infrastructure to meet regulatory and supply company requirements.
- The poor and very poor draining soils are not ideal for high stocking rates. While this can be overcome with off-paddock infrastructure, it is a substantial investment.
- There is evidence of a derelict covered feedpad/herd home (incorrectly labelled as a tunnel house for cropping production by Ruth Underwood¹⁰) on one of the properties. This now has a cracked concrete base, and would not be compliant with effluent sealing standards for containment and capture and for holding and feeding animals.
- Fragmented land across multiple properties will prevent any viable scale being achieved.
- Risk for off-site odour effects due to proximity to multiple dwellings and sensitive receptors, particularly for dairy effluent blocks, effluent storage ponds, cowshed infrastructure and spray irrigation within the paddocks.
- The high value of the land also makes it unattractive for leasing or purchasing, with farmers opting to purchase dairy farms that have better drainage properties, existing dairy farms, more distant from urban areas and at affordable land values.
- The existing urban zoned land adjacent to the western and southern boundaries of the Development Site is occupied by dwellings. This further discourages the establishment of dairy farming activities on the Development Site.
- Conversions of non-dairy land into dairy is sought on lower value land, to account for the capital investment required.

Arable

There is currently minimal area that is suited for arable cropping due to the soil constraints. AgFirst has identified 8.3 ha within the Development Site that would be suitable for arable purposes, based on well drained soils, flat contour and reasonable scale (> 4.0 ha) that would potentially be viable for a contractor. The initial arable area was identified at 18.1 ha, however due to the NZTA NoR the area was reduced to 8.3 ha.

Whilst these areas could be considered for arable cropping, it does not overcome the constraints and economic viability with the properties making a loss with this highest land use activity.

Additional areas are not a reasonably practicable option for arable land use due to:

- The soil constraints, particularly the long-term viability of cultivating peat (subsidence) and poorly drained soils.

¹⁰ Sunfield Fast-track, Auckland Council Specialist Memo – Annexure 16: Highly Productive Land, Ruth Underwood, August 2025. 45 | Page

- The proximity to neighbouring receptors would be an elevated risk of causing off-site nuisance rodent problems, dust, spray drift and noise effects.
- Not considered an attractive prospect for contractors due to machinery access, small scale or unsuitable soils and contour.
- The fragmented and small size will not attract lessee or contractors.
- This alternative land based primary production does not overcome the economic viability.

Commercial Vegetable Production

There are currently no properties that are in vegetable production land use. As discussed in Section 6.3, the soil types across the majority of the Development Site do not lend themselves to any horticultural or commercial vegetable production land uses. AgFirst does not consider that horticulture is a reasonably practicable option for the Site. The poor and very poorly drained soils will likely have an impact with some crops not surviving, while others will have reduced yields.

Essentially, more intensive and higher land uses (such as arable, horticulture and commercial vegetable operations) require free draining (or soils without rooting barriers) and relatively flat land. The greater the wetness limitation, the more impact on yield and crop survival. Free draining soils are not prevalent across the Development Site, therefore the versatility is vastly reduced.

In the assessment undertaken by Auckland Council, Ruth Underwood has photographed and labelled in Paragraph 31¹¹, what she has identified as a tunnel house previously used for growing crops. She has referred to a 2012 Google Earth aerial view, whilst not including this in her report. This was clearly a covered feedpad/herd home, and part of the historical dairy farming operation. For clarity, AgFirst has included the 2005 and 2012 Google Earth satellite images (Figure 12). Regardless, land-based primary production does not include tunnel houses, glass houses or green houses, as the definition within the NPS-HPL clearly states that “production, from agricultural, pastoral, horticultural, or forestry activities, that is **reliant on the soil resource of the land**”. Emphasis added. While the latest amendments in August 2024 to the NPS-HPL has provided a pathway for intensive indoor primary production or greenhouse activities, it did not change the definition of land-based primary production.

Additional areas are not a reasonably practicable option for CVP land use due to:

- Land with very poor, poor or imperfectly drained soils.
- The proximity to neighbouring receptors would be an elevated risk of causing off-site nuisance dust, noise and spray drift effects.
- Not considered an attractive prospect due to capital investment requirements (machinery, water irrigation and cool stores) for small scale operations.
- Unattractive for contractors or leases due to machinery access, small scale or unsuitable soils.
- The fragmented and small size will not attract lessee or contractors.

¹¹ Sunfield Fast-track, Auckland Council Specialist Memo – Annexure 16: Highly Productive Land, Ruth Underwood, August 2025. 46 | Page

- None of the properties would be sought after for established CVP operations.



Figure 12: Satellite imagery of feedpad / herd home from 2025 and 2012 respectively

Horticulture

AgFirst does not consider high value horticulture as a reasonably practicable option to overcome the economic or constraints within the Development Site due to:

- Land with very poor, poor or imperfectly drained soils.
- The development costs involved for establishing a horticulture operation such as kiwifruit, which is an emerging horticulture option within this district, is estimated as \$150,000 - \$250,000 per ha (including irrigation, plants, frost protection, trellis infrastructure and shelter) in addition to license fees. Other horticulture options such as pip fruit are not readily established in this area. It would be impractical to make this level of investment on the small areas that are in close proximity to sensitive receptors.

- With horticultural operations, there are issues with sprays and noise from frost protection. This location next to existing and future residential development 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 sought after for conversions into horticulture.

6.7.2 *Improved land management strategies:*

- The constraints of irreversible land fragmentation and small scale cannot be overcome by land management strategies.
- The gas line and exclusion area that dissects the Development Site will limit the effectiveness of artificial drainage.
- Consideration has been given to making artificial drainage improvements to increase the versatility of the land. While further land management strategies, including artificial drainage would be possible, there are also additional considerations, due to the low variation in slope across the properties, AgFirst does not believe subsurface drainage would be practical or effective. To achieve a 0.5%-1.0% drainage gradient, this would need a fall of 0.5 to 1.0 m for every 100 m distance. With the relatively high water-table at the Site during drainage events and winter, it would be a challenge to ensure the drainage coil at the outflow will remain above the drains/stream/waterway surface water height. Therefore, it is unlikely that subsurface drainage would be effective.
- Due to the poorly and very poorly drained soils, artificial drainage will have to be designed with tight spacing and laterals to remove water from the root zone. This becomes very costly considering the land use options available.
- There are further issues with the development of open surface drains. Good farming practices and some regulations include and recommend cultivation setbacks. Examples of this are 5 m setbacks within the Waikato Regional Proposed Plan Change 1 minimum standards. This would remove additional productive land with additional capital development costs that will not be recovered.
- The highest and best production use across the Development Site has been evaluated. While small improvements would be feasible, there are no alternative options that would be significant enough to lift profitability to an economic level.

6.7.3 *Alternative production strategies*

- The constraints of 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.
- The highest and best production use across the Development Site has been evaluated. There are no proven alternative cropping options or strategies that would be significant enough to lift profitability to an economic level.
- Very few of the properties have cattle yards, therefore alternative production strategies and more intensive finishing systems are unlikely to occur. Investment into sufficient yards for the low returns and very small scale would not make economic sense.

6.7.4 *Water efficiency or storage methods*

- While water efficiency or storage methods is a requirement for horticulture and CVP, conversion to these land uses are unlikely to be practicable, therefore not a relevant solution. Pastoral grazing and arable land use do not require freshwater irrigation.
- A feasibility study for water availability has not been undertaken. Water is required for stock drinking, however this is already assumed to be available for the farms with animals. Additionally, access to water for stock drinking is a permitted activity under the Unitary Plan.

6.7.5 *Boundary adjustments (including amalgamations)*

- This assessment has reviewed the contiguous HPL areas within the Development Site which are suitable for primary production.
- The Development Site in its entirety is bound to the south and west and (partly) to the north-east by non-rural and non-land based primary production.
- These blocks do not lend themselves to long-term productive use due to the significance of the non-reversible land fragmentation.

6.7.6 *Lease arrangements*

- With regard to lease opportunities, all the areas available for use as land-based primary production would return net losses based on existing and realistic economic returns. Therefore, leasing does not overcome the permanent or long-term constraints. If an operator were to lease any of the properties, there is not enough income from the various operations to pay a lease rental, even based on a conservative productive lease value. Alternatively, a typical drystock lease rate would not be enough to cover fixed land costs including the rates. Therefore it would not be a viable proposition for the landowners.

6.7.7 *Additional evaluations:*

- The surrounding locality is largely made up of rural lifestyle blocks and hobby farms and constrained by Ardmore Airport, future residential zoning and existing residential zoning. Therefore, the value in the land within the Development Site is reflective of land used for non-primary productive purposes. Combining the inflated land price and small scale of the effective areas, there are no reasonably practicable options that would overcome the economic long-term constraints for this Site.

6.8 Evaluation of reasonably practical options:

Pursuant to Clause 3.10(3)(a), the alternative forms of land based primary production, improved land management strategies, alternative production strategies, water efficiency or storage methods, reallocation or transfer of water and nutrient allocations, boundary adjustments including amalgamations, and lease arrangements assessed above have been considered independent of any potential economic benefit of using the HPL for purposes other than land-based primary production.

Consideration needs to be given to the deliberate inclusion of “reasonably practicable options”. When assessing if an alternative option would overcome the economic viability, the assessor must ask if this is what a reasonable person would do. If the context is to amalgamate 10 properties to increase the landholding to something slightly larger, but still very small compared to the Beef and Lamb New Zealand farm survey which shows a 255-ha average farm size for North Island finishing land. AgFirst does not believe amalgamation is reasonable. Furthermore, as a result of the NPS-HPL, there is likely to be a shortage of lifestyle properties, due to higher demand and short supply, therefore these land prices will over the long-term likely go up.

Pursuant 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. AgFirst concludes that the major constraints for the Development Site is fragmentation, impeded soil drainage and wetness limitations, historical subdivision, isolation from other viable land-based primary production and the small non-contiguous HPL areas (in comparison to the benchmark north island finishing farm size of 255 ha) that are impacted. The loss of the HPL within the Development Site does not exacerbate this constraint because it is significantly constrained already. The impact of the proposed urban development of the site will have on the remaining HPL is negligible. It is already at a small and insufficient scale to be economic, with very high property liabilities, as indicated by the gross margin analysis compared to typical unfragmented farms.

With respect to Clause 3.10(3)(c), AgFirst has considered the future productive potential of land-based primary production on the Site, without being limited by its past or present uses. In conclusion, the highest and best land-based primary productive use for the Site, both now and the future, is pastoral grazing at a sustainable stocking rate and pockets of arable cropping. This is based on the limitations and long-term constraints, being non-reversible land fragmentation, small scale of operation and poor-quality soils. There are no additional reasonable and practicable land management strategies for improving the productive capacity of the block.

7.0 SUMMARY

The 24 individual properties included within the Development Site are predominantly lifestyle blocks, hobby farms, with a few farming operations. The 14 MRZ properties range in size from 3.0 ha to 35.9 ha and an average size of 13.4 ha. Other than pastoral grazing, due to constraints and viability, the only alternative land use for the Development Site has been identified as arable, with potentially 8.3 ha that is suitable.

Overall, while much of land and soils within Development Site are categorised as highly productive land under the NPS-HPL (LUC 1, LUC 2 and LUC 3), the practical likelihood of any sustained existing or intensive agricultural operation is severely constrained due to:

- Non-reversible land fragmentation of the Development Site and surrounding land uses
 - » Adjacent future residential zone, residential zone, airport and sensitive receptors
 - » Significant fragmentation throughout the Site
 - » Lanes, roads and existing development
 - » Additional area removed due to the NoR.
- Soil conditions
 - » Large areas of poorly and very poorly draining soils that limit the productive capacity and versatility
 - » Imperfectly drained soils, limiting areas that would be suitable for CVP or horticulture
 - » Sloping areas greater than 15 degrees being unsuitable for arable, while slopes greater than 10 degrees are unsuitable for CVP and horticulture.
 - » Gullies and non-productive areas
- Lack of expansion or alternative forms of land-based primary production options
 - » No opportunity for improved or alternative land management and production strategies
 - » Small fragmented productive areas limiting operational scale
 - » Separate ownership of properties
 - » Physical boundaries and amalgamation opportunities
 - » Existing developments and unproductive lifestyle blocks
- Reliance on contractors and lease agreements
 - » Low appeal for these restricted landholdings due to disruptions and complaints - which is likely to be exacerbated with continued development and re-zoning of the FUZ Land in the southern part of the Development Site.

Given the constraints identified above, AgFirst believes that the proposed urban use of the Development 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 Development 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 Development Site from productive use will cause no significant loss in the district of productive capacity of highly productive land, due to the severe limitations and long-term constraints outlined above and throughout this assessment.
- Due to the existing fragmentation and development of the Development Site, the urban use of the Development Site will not cause any 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 limitations of the Development Site, and with rapidly rising input costs, the returns from marginal yields will continue to be reduced, and consideration will need to be given regarding the optimum land use for the land. When discussing the long-term productivity of the Development Site, the properties will not be economically viable for agricultural use during the next 30 years. Furthermore, while some properties have scope to increase their productive use and income, these do not overcome the constraints and economic viability. For the remainder of the properties, there does not appear to be any higher and better primary land use through further development or amalgamation given the existing and future land use constraints.

From an agricultural perspective, it would be a better option to develop this Site for urban activities, compared to alternative greenfield sites that are well removed from existing urban zoned land, with few constraints and higher productive potential.

ANNEXURE B: NPS-HPL ASSESSMENT OF THE SUNFIELD SITE, ARDMORE.
REVIEW UNDERTAKEN BY LANDSYSTEMS

ANNEXURE C: OPERATIONAL ECONOMIC ANALYSIS

GROSS MARGIN 2022-23									
Example: North Island Maize Grain									
Maize - Grain									
	Harvest Year:	2023			Area:	1 ha			
	Date prepared:	9-Jun-23							
INCOME per hectare									
Product				Yield	Unit	Cost/Unit	Income/ha	Sub-total	Total
Grain				12.5	tDM/ha	\$441	\$5,513		
								\$5,513	\$5,513
EXPENSES per hectare									
Category	Date	Operation	Product	Rate	Unit	Cost/Unit	Cost/ha	Sub-total	Total
Seed		Seed	Maize seed	1.15	bags	\$442	\$508		
			Poncho			\$123	\$141		
			FAR levy	\$1.00	per 10,000 seeds	\$8.00	\$9.20	\$659	
Establishment		Herbicide	Glyphosate360	3.0	L	\$15	\$45		
		Herbicide	Pulse	0.1	L	\$37	\$3.70		
		Herbicide applic	Sprayer (contractor)	1	x	\$50	\$50		
		Cultivation	Contractor			\$430	\$430		
		Planting	Maize planter (contractor)	1	x	\$220	\$220		
								\$749	
Herbicide	Pre-em	Herbicide	Roustabout	3.0	L	\$15	\$45		
	Pre-em	Herbicide	Atrazine500	3.0	L	\$12	\$36		
	V3	Herbicide	Primiera	0.2	L	\$177	\$35		
	V3	Herbicide	Latro	80	g	\$0.89	\$71		
		Herbicide applic	Sprayer (contractor)	2	x	\$50	\$100		
								\$288	
Fertiliser		Soil test	Nutrient test*	1	x	\$10	\$10		
		Soil test	Mineral-N (Deep N)*	1	x	\$9	\$9		
		Fertiliser	Lime (cart & spread)	1000	kg	\$0.10	\$100		
	Base	Fertiliser	Muriate of Potash	300	kg	\$1.09	\$327		
	Planting	Fertiliser	DAP (18:20)	250	kg	\$1.43	\$358		
	V4	Fertiliser	Urea	250	kg	\$1.24	\$310		
	Base	Fertiliser applic	Contractor (cart and spread)	1	x	\$45	\$45		
V4	Fertiliser applic	Contractor (sidedress)	1	x	\$110	\$110			
*One test per 5 ha								\$1,269	
Harvest									
		Harvest	Combine	1.00	x	\$500	\$500		
								\$500	
Cart and Dry			Cartage (per wet tonne, 50km)	13.78		\$25	\$345		
			Drying (22 - 18% per wet tonne)	13.78		\$46	\$634		
								\$979	
									\$4,442
GROSS MARGIN per hectare									\$1,070

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