Assessment of land owned by D & S Payne, 20 Bennett Rd, Geraldine for its potential to be subdivided under the National Policy Statement - Highly Productive

1 Background

D & S Payne have commissioned The AgriBusiness Group (TAG) to prepare an assessment of the potential for the property at 20 Bennett Rd, Geraldine (the site) to be granted a resource consent for an Urban Growth Request for a Rural Lifestyle FDA11 time frame change from 10 years to immediately under the National Policy Statement - Highly Productive Land (NPS-HPL) under Clause 3.10 "Exemption for highly productive land subject to permanent or long-term constraints".

The approximately 8.8 ha site is zoned Rural under the Timaru District Plan.

1.1 Description of the Site

As can be seen from **Figure 1** the site has Bennett Rd immediately to the North and then the site is completely surrounded by lifestyle blocks of varying sizes. Further away from the site across Bennett Rd and to the West there is an extensive area of arable and pastoral land uses, to the South is the township of Geraldine and then to the East across State Highway 72 there is an extensive area of lifestyle blocks on the Geraldine Downs.

Figure 1: Map of Site showing neighbouring land uses (Google Earth) the site is outlined in red.

The site has traditionally been run as an irrigated Pipfruit orchard supplying, predominantly, the local market through gate sales. The area that has been utilised for Pipfruit production has been severely diminished over the last ten years as a result of the reducing returns from the local market and the increased pressure from neighboring properties from reverse sensitivity to the sprays that are necessary to manage pest and diseases and the of intensive activities like air blast chemical spraying, bird scaring, frost mitigation that are necessary to maintain production in what is really a lifestyle / urban environment. The small area that is now devoted to Pipfruit can be seen in Figure 2.

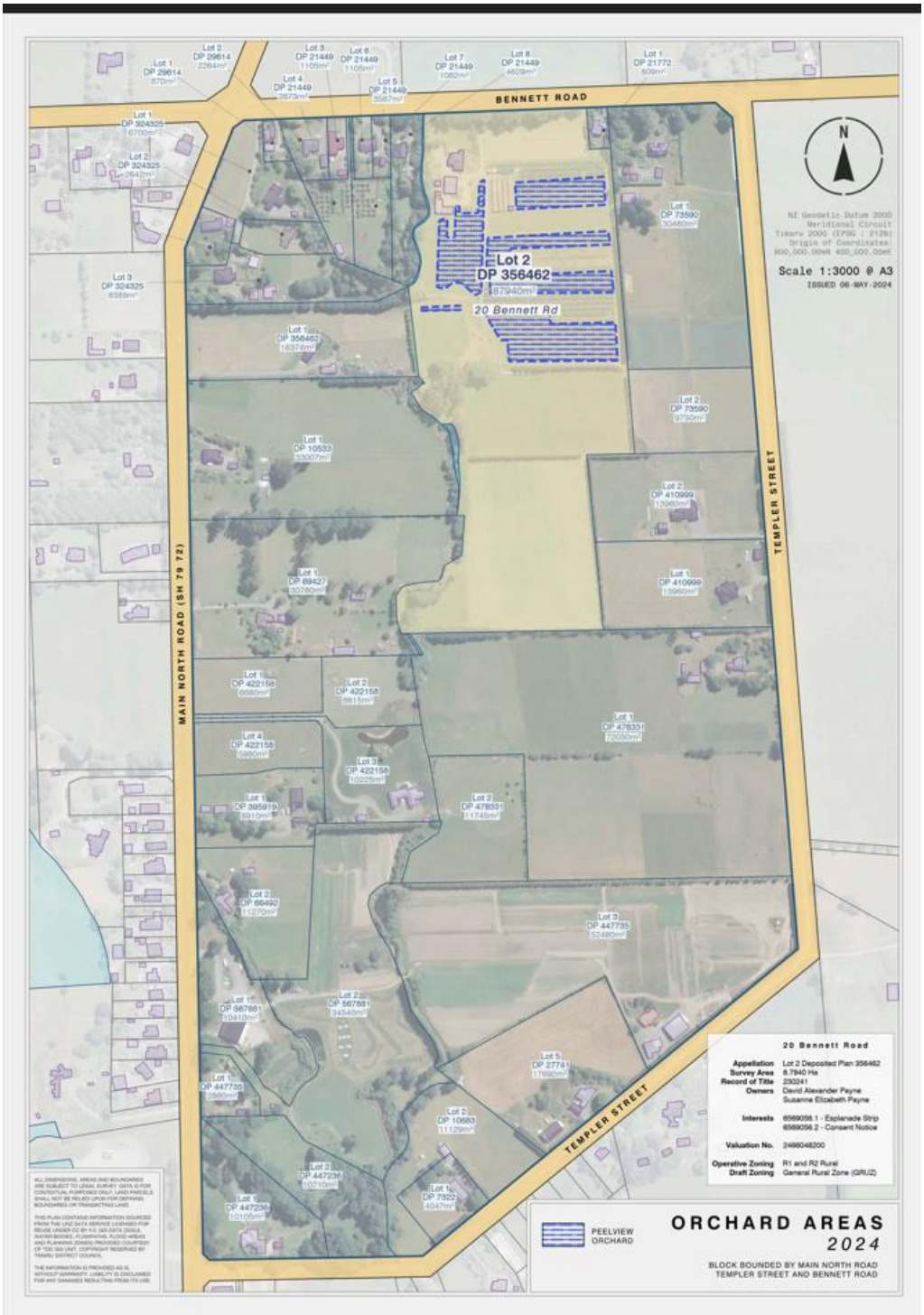

Figure 2: Approximate area in Pipfruit in 2024 – (the area depicted as Peelview Orchard)

The lot density of the area surrounding the site is shown in Figure 4. This shows that the area is in total only 56.13 ha and contains 38 lots. These lots range in size from 809 m^2 to 8.8 ha (the Payne's property).

Although the client's property is the largest landholding in the area, the use of the site for intensive horticulture conflicts with the changed land use of the surrounding the site.

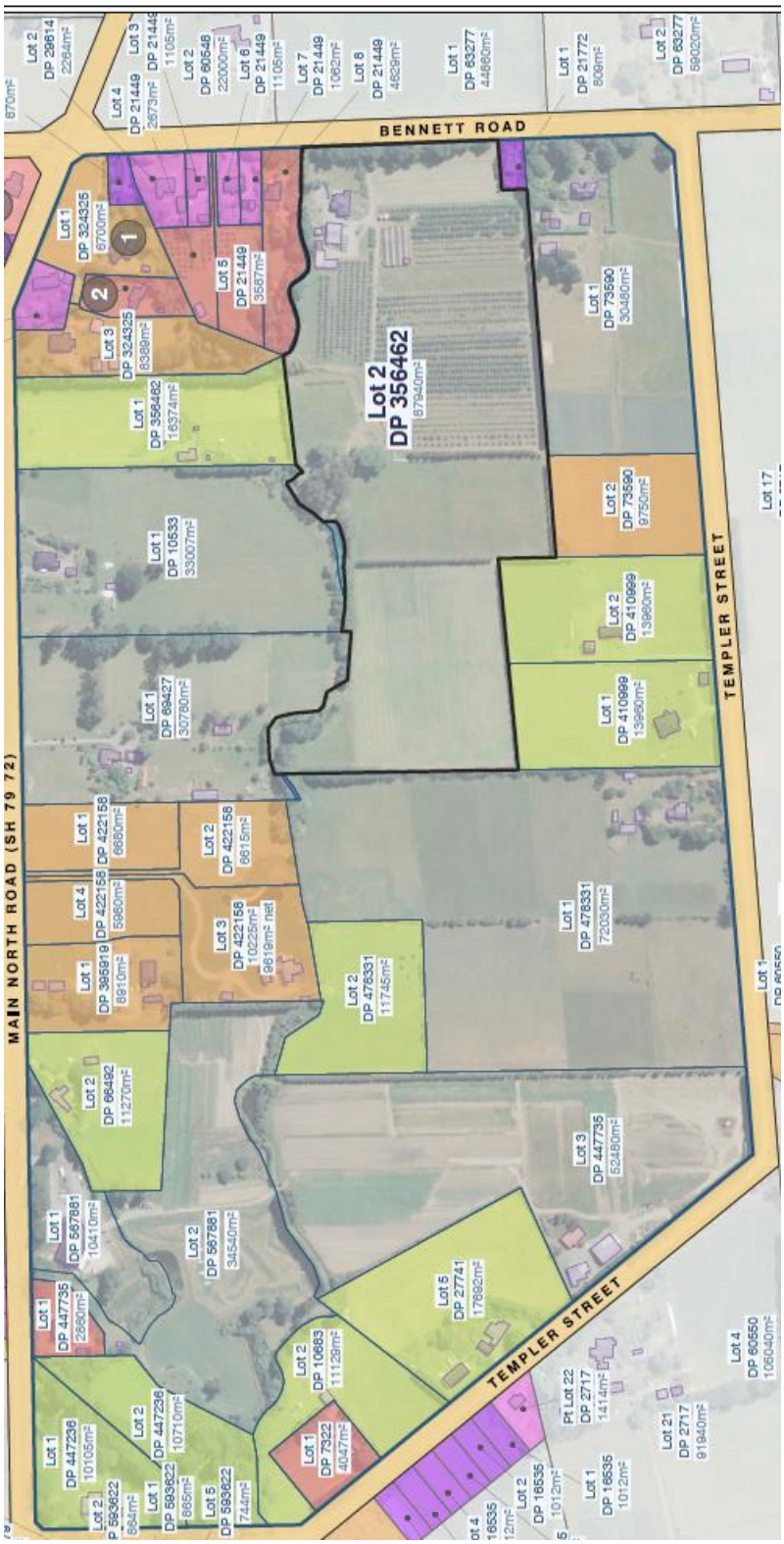

Figure 3: Lot density map of the area.

1.2 Land Use Capability

The data which is available on Land Use Capability (LUC) in the New Zealand Land Resources Inventory Series (LRIS) Portal[1] is shown in **Figure 4**. We can see from **Figure 4** that approximately 6 ha is LUC 2 and the remaining approximately 2 ha is unclassified / other land.

In the NPS-HPL all land designated as LUC1, 2, and 3 in the LRIS mapping is automatically considered to be highly productive land until it is remapped at a finer scale by the local teritorial authority. It is reccomended that when a block contains both HPL land and non HPL land the best practice is to consider that all of the site is HPL. This is the way we assess this site.

Figure 4: Land Use Capability (Dark Green is LUC 1, Mid green is LUC 2 and Light Green is LUC 3)

1.3 Consideration of the NPS-HPL

Clause 3.10 in the NPS-HPL Exemption for highly productive land subject to permanent or long-term constraints states that:

(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

[1] https://ourenvironment.scinfo.org.nz/maps-and-tools/app/Land%20Capability/lri_luc_hpl

(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.

In providing this report I have taken account of the "National Policy Statement for Highly Productive Land Guide to Implementation"[2] dated March 2023. I am aware that the information provided in the guidance document does not have any statutory weight nevertheless it is helpful in understanding the approach taken in forming and wording the NPS-HPL.

I have adopted the three tests which the proposal must meet to determine whether the site has permanent or long-term constraints for which exemptions apply, and I have analysed each of the tests set out in Clause 3.10 of the NPS-HPL.

The first test, 1 (a) determines that 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[3] for at least 30 years.

I have evaluated the two steps.

The first step in test one is whether there is a permanent or long-term constraint on the land that will be present for at least 30 years. Having listed and analysed those factors I have then assessed the second step which is that the constraint means that land-based primary production cannot be economically viable for at least 30 years.

The second test, 1 (b), is to assess whether the granting of this consent would compromise the ability of other HPL land in the district to be used for land based primary production.

The third test, 1 (c) is whether the benefits of the proposed development outweigh the costs of the loss of highly productive land taking into account both tangible and intangible values. The range of both tangible and non tangible costs and benefits that have been used in this assessment have been taken from the Cost Benefit Analysis[4] carried out on the NPS-HPL.

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[2] MFE: (2023) National Policy Statement for Highly Productive land: Guide to implementation.
[3] I use the definition for economic viability that is used in the Cambridge dictionary which is "*the ability of a business, product, or service to compete effectively and to make a profit*".
[4] Market Economics (2020): National Policy Statement – Highly Productive Land. Cost-Benefit Analysis

In the guide to implementation[5] it states that "….. *requires an assessment of the benefits and costs of rezoning. It is intended to ensure a more robust assessment of benefits and costs across the four wellbeings (environment, economic, social, cultural) is undertaken for all urban rezoning proposals on HPL and that this specifically considers long-term benefits and costs and tangible and intangible values*." And that "*Intangible values of HPL that should be considered as part of this assessment include:*

- *its value to future generations*
- *its finite characteristics and limited supply*
- *its ability to support community resilience*
- *the limited ability of other land to produce certain products*."

This requires that the site should be evaluated to provide the full range of benefits of the proposed rezoned land that can be weighed up against the full range of costs of the loss of HPL.

I am of the opinion that I have the expertise to carry out a qualitative assessment of the benefits of the proposed development as well as the costs of the loss of HPL land. In doing so I have drawn on my professional experience, that of my colleagues who are environmental consultants.

2 1 (a) - Constraints and Economic Viability

The site has several significant land use constraints.

2.1 Soils

Figure 5 is a screenshot of the data held in the Manaaki Whenua Landcare Research's online portal of soils in New Zealand SMap[6].

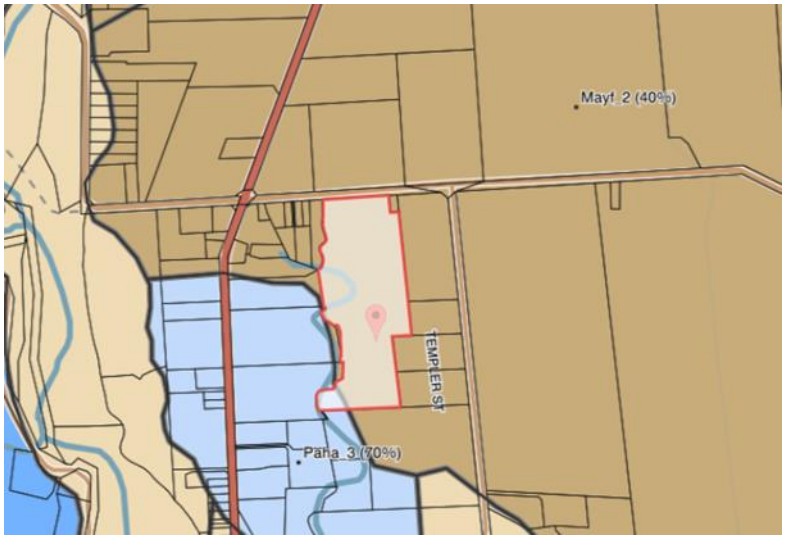

Figure 5: Soils on the site as mapped in SMAP

Table 1 lists the soils on the site by sibling description, area and proportion.

[5] MFE (2023): National Policy Statement for Highly Productive Land: Guide to implementation.
[6] https://smap.landcareresearch.co.nz/maps-and-tools/app/

Table 1: Soils on the site by sibling description, area and proportion

Sibling	Area (ha)	Proportion (%)
Mayf_2a.1	3	39
Darn_1a1	3	29
Mayf_6a.1*	3	32

*Mayf_6a.1 represents some smaller parcels of land which are below 1 ha in total.

Definitions of the key soils physical properties that are listed in the SMAP fact sheets[7] for the soils that are present on the site are shown in **Table 2**.

Table 2: Description of soils on site

Soil Name	Mayfield	Darnley	Mayfield
SMap Name	Mayfield_2a.1	Darnley_1a.1	Mayfield_6a.1
Depth Class	Moderately deep (45 - 90 cm)	Shallow (25 - 60 cm)	Moderately deep (45 - 90 cm)
Rooting Depth	Unlimited	80 - 90 (cm)	Unlimited
Depth to stony layer	No significant barrier within 1 m.	Shallow	Moderately deep
Texture Profile	Silt	Silt	Silt over clay
Topsoil Stoniness	Stoneless	Slightly stony	Stoneless
Drainage Class	Moderately well drained	Moderately well drained	Moderately well drained
Profile Available Water (0 to 100cm)	Moderate (109 mm)	Moderate (104 mm)	Moderate (114 mm)

The Mayfield soils which in total make up 71% of the site are moderately deep silts which are stoneless, moderately well drained with a moderate Profile Available Water (PAW). The Darnley soils which make up 29% of the area are shallow silts which are slightly stoney moderately well drained with a moderate PAW.

These soils are all theoretically suitable for horticulture, vegetable, arable and a wide range of pastoral land uses.

2.2 Scale

The scale of the site is a significant constraint because at only approximately 8.8 ha it lacks any of the scale which is necessary to achieve the economies of scale which are necessary to achieve economic viability for any but the most intensive horticultural land uses.

[7] https://smap.landcareresearch.co.nz/maps-and-tools/factsheets

2.3 Reverse Sensitivity

The issue of reverse sensitivity is a major constraint to the potential land uses that are available on the site. The site has ten immediate neighbours and another five properties which are situated within 50 m of the boundary. This close proximity of a large number of potentially negatively impacted by reverse sensitivity neighbours have already contributed to the current owners reducing the scale of their Pipfruit production from approximately 70% of the sites area in 2006 to approximately 30% of the site's area currently.

I am of the opinion that the potential for reverse sensitivity complaints on the site, which is surrounded by lifestyle / urban lots, would mean that any owner who was looking to set up an intensive horticultural operation would seek a site which wouldn't have the same degree of potential for reverse sensitivity complaints.

2.4 Exclusion of Horticulture

While the potential for intensive horticultural land use has been considered it has been rejected for the reason that the potential for reverse sensitivity complaints would exclude this site being considered for this sort of land use.

2.5 Limitations of Arable

The ability to maximise the productivity of any of the potential arable land uses would require that the land was farmed as part of a larger farming entity and that irrigation capability was available.

The small scale would not allow for a crop rotation to be undertaken on the land. The block of land would have to be incorporated into a bigger growing operation in order to achieve sufficient scale to enable the landowner to maximise productivity. The machinery and equipment would need to be transported into what is a lifestyle / urban area. This makes the site unappealing for existing arable operators.

The small scale of the property also makes the site not an attractive option for integration into a larger farming operation.

2.6 Pastoral Land Use

It would be theoretically possible for the land to be used for pastoral grazing (sheep and beef and dairy support) however there are a number of significant constraints on that land use being achieved. The constraints include:

- The costs associated with intensifying the productivity of the site e.g. providing for winter crops, and providing additional supplementary feed from off site are all too expensive to be justified on such a small scale.

- The scale of the site being too small to offer a prospective farmer any real advantage in farming the site

It is my opinion that the site would not be an attractive option for a farmer to take it up to add to other productive land because of its scale and the potential for reverse sensitivity complaints..

It is my opinion that the highest and best land use would be for irrigated dairy support grazing which would include the growing of silage to be transported off site and the grazing of dairy heifers.

2.7 Economic Viability

The economic viability[8] of the site is determined by the ability of the site to return profits from the farming of the site to offer the owners a sufficient return.

Considering the constraints limiting the site's potential for primary production, the highest and best land use is irrigated dairy support grazing. In order to evaluate the site's economic viability, I've assumed this land use is possible on the 7.5 ha of land which is theoretically available for primary production.

In calculating the income possible I have used data taken from TAG's dairy support budget. I am of the opinion that the assumptions I have made show a quite aggressive view of the economic activity possible on the site.

Table 3 outlines the key financial metrics of this model. The Earnings Before Interest and Tax (EBIT) measure shows the surplus generated which is available to cover interest and taxation and provide a surplus for an owner.

Table 3: Key Financial Metrics of Dairy Support Grazing ($/ha)

	Dairy Support
Gross Farm Revenue	3,868
Farm Operating Expenses	2,350
Earnings Before Interest and Tax	1,518

If the 7.5 ha were available for production, the financial performance would be as shown in Table 4.

Table 4: Financial performance of the site. ($)

	Dairy Support
Gross Farm Revenue	29,010
Farm Operating Expenses	17,625
Earnings Before Interest and Tax	11,385

Although calculating the amount that would be required to provide sufficient return is very subjective, if we were to provide a sense check by providing for a return for management of 1.5% of the Gross Revenue and Interest payments on 40 percent of the capital value of the property at 7%, the total required to cover those costs would be $31,515 whereas the site can only return $11,385 which is $20,130 below the required amount. It's important to note that, under the given assumptions, there would be no tax obligation, as the net taxation position of the site would result in a $3,939 loss.

[8] We use the definition for commercial viability that is used in the Cambridge dictionary which is "*the ability of a business, product, or service to compete effectively and to make a profit*".

It is my opinion that pastoral land use that could potentially establish on the 8.8 ha site is unable to provide sufficient income to provide for interest, taxation and a return for management as a stand-alone unit therefore it cannot be considered to be economically viable.

Therefore, I conclude that the site is unable to be considered as economically viable both now and in 30 years' time.

In coming to this conclusion, I have considered 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:

(a) The alternate forms of land-based primary production are severely constrained by the scale of the site, the location and reverse sensitivity constraints which are on the site.

(b) The economic viability test has been carried out by using the most advanced land-management strategy that is available on the site.

(c) Alternative production strategies have been rejected because of the severe constraints on the site that limit the ability to adopt them.

(d) Water efficiency or storage methods are not appropriate to this site because the very small scale would preclude the ability to return the costs of the investment in that technology.

(e) Reallocation or transfer of water and nutrient allocations is not a viable factor on this site.

(f) Boundary adjustments, including amalgamations, are not possible because the Site is land locked from other economically viable HPL land.

(g) The scale of the site and the difficulty of access preclude the block being leased to another larger farming operation.

3 1 (b) - Compromise the ability of other HPL land in the district to be used for land based primary production

Concerning (b) (i), I am of the opinion that the loss of 8.8 ha of HPL is not significant in the Canterbury region which contains 827,935 ha of HPL land.

In relation to 1(b) (ii), I am of the opinion that the proposal avoids fragmenting large and geographically cohesive areas of HPL because the site is on the edge of a thin strip of HPL land. The scale of the area to be lost, comprising 8.8 ha, is not significant in the context of the surrounding HPL land and will not contribute to additional fragmentation.

In relation to 1(b) (iii), we believe the proposal mitigates potential reverse sensitivity effects on surrounding land-based primary production. This is because much of the surrounding land comprises rural lifestyle blocks which are unlikely to be the source of concerns relating to reverse sensitivity effects.

4 The Benefits Outweigh the Costs

4.1 The proposed land use.

The proposed land use is shown in **Figure 6** which is a depiction of the proposed layout of the site as four lots which achieve the current minimum lot size in the lifestyle zone which is 2 ha. We note that the area shown in this figure shows an area of Pipfruit which is not a representation of the current area of Pipfruit.

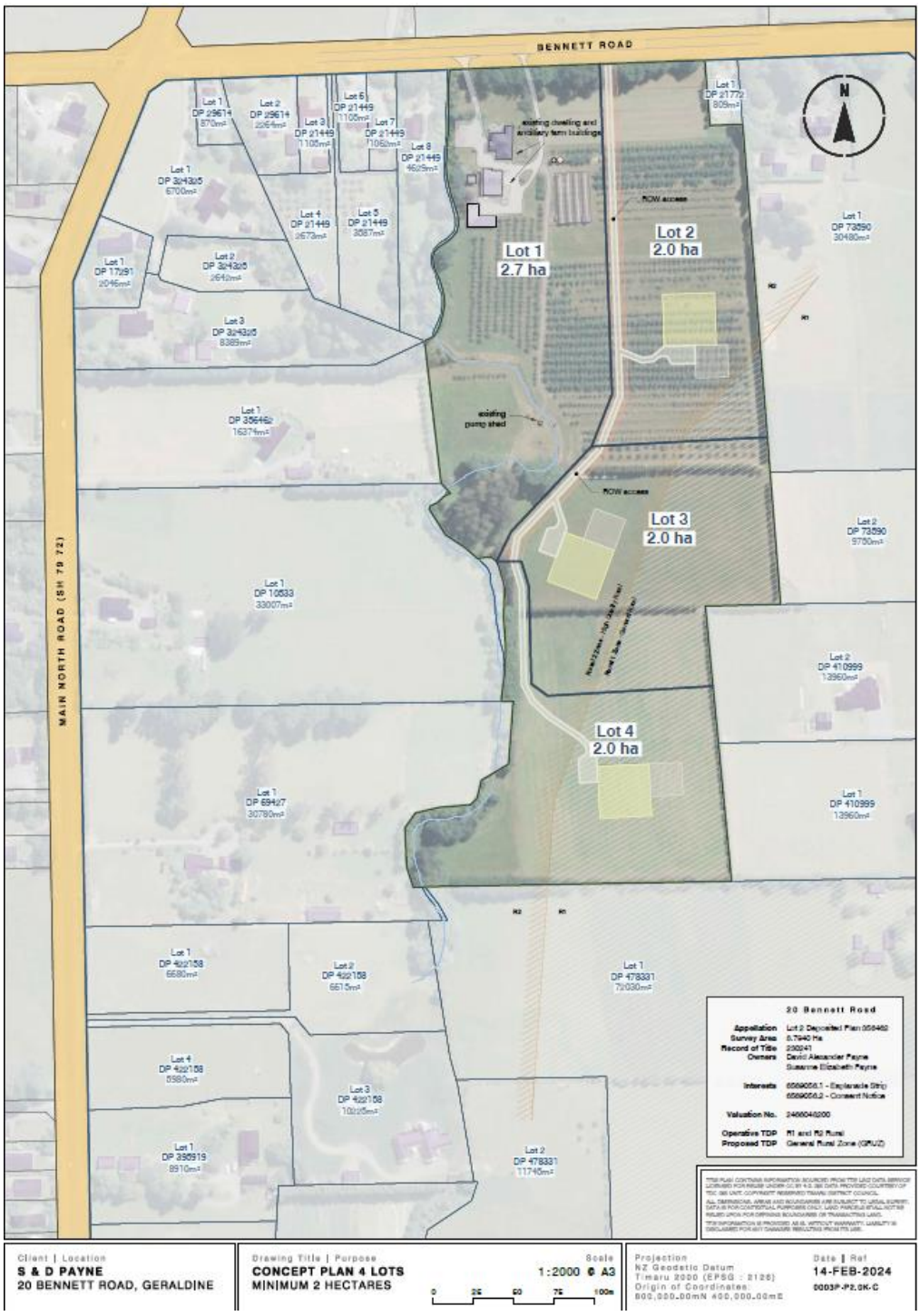

Figure 6: Layout diagram of the proposed use of the site.

In relation to 1(c) our assessment of the costs and benefits of the proposal are shown in **Table 5**.

Table 5: Costs of the loss of HPL and Benefits of the Proposal

Category	Costs of the loss of HPL	Benefits of the proposal
Environmental		
Carbon sequestration		Slight enhancement.
Support Habitat		Slight enhancement.
Water filtration		Enhanced
Flood mitigation		Enhanced
Nutrient		Enhanced
Climate regulation		Slight enhancement.
Air and water quality		Neutral
Biodiversity conservation		Enhanced
Social/ Cultural		
Sense of belonging and place		Enhanced
Social fabric		Enhanced
Food security	Slight loss	
Spiritual value	Neutral	
Economic		
Income		Enhanced
Employment		Enhanced
Flow on impacts to a wider community		Enhanced

All of the environmental implications for the proposed land use are positive but they are on a very small scale mainly because of the small scale of the site. The removal of the animals and the application of fertiliser will mean that there will be a slight improvement in carbon sequestration nutrient and climate regulation. While biodiversity, water filtration and flood mitigation will all be enhanced.

The social aspects will mainly be enhanced by the addition of the three extra dwellings which will meld the area into a cohesive lifestyle / urban environment. There will be the loss of food production from the site but this will not be significant either from the site itself or cumulatively.

The economic impacts are also all positive for the proposed land use as there will be the enhanced economic activity during the development stage and the biggest benefit will be that the current land use is not economically viable and so an alternative land use will provide a viable land use.

This leads to the conclusion that the proposed land use as four lifestyle lots would result in economic, social and environmental benefits that outweigh the costs associated with the loss of HPL land.

5 Conclusion

I conclude that the request for a resource consent for an Urban Growth Request for a Rural Lifestyle FDA11 time frame change from 10 years to immediately meets all of the limbs in the clause 3.10 test and therefore Timaru Council should be satisfied that this HPL can be used for activities not otherwise enabled under clauses 3.7, 3.8, or 3.9 of the NPS-HPL.

Stuart Ford Director