Assessment of land owned by Rosa Westgarth and Jan Gibson at 82 Kellands Hill Road, Timaru, for its potential to be subdivided by meeting the requirements of Clause 3.6 of the NPS-HPL

1 Background

The AgriBusiness Group has been requested by Lauren Roycroft to prepare an assessment of whether the rezoning of 82 Kellands Hill Road, Timaru meets the requirements of section 3.6 (1) (c) of the National Policy Statement on Highly Productive Land (NPS-HPL).

This assessment is under the NPS-HPL Clause 3.6 Restricting urban rezoning of highly productive land.

Under sub clause (1)(c) this requires that "the environmental, social, cultural and economic benefits of rezoning 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."

In the guide to implementation¹ it states that "*Clause 3.6(1)(c) 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 wellbeing's (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 subdivision of land that can be weighed up against the full range of costs of the loss of HPL.

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 Analysis² carried out on the NPS-HPL. They are as displayed in Table 1.

¹ MFE (2023): National Policy Statement for Highly Productive Land: Guide to implementation.

² Market Economics (2020): National Policy Statement – Highly Productive Land. Cost-Benefit Analysis

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.

Table 1: Costs and Benefits	both tangible and	non-tangible asse	ssed in this exercise.
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Category
Environmental
Carbon sequestration
Support habitat
Water filtration
Flood mitigation
Nutrient
Climate regulation
Air and water quality
Biodiversity conservation
Social / Cultural
Sense of belonging and place
Social fabric
Food security
Spiritual value
Economic
Income
Employment
Flow on impacts to the wider community

1.1 Description of the Site

Figure 1 shows that the 200-hectare site is situated just North of Timaru and West of Washdyke. The land to the North of the site consists of predominantly pastoral farmland. There are also lifestyle blocks and smaller farming operations to the immediate West of the site. Pastoral farmland transitioning into the Timaru industrial area is located to the East of the site. Residential housing borders the South of the site.



Figure 1: The site and its surrounding land uses

1.2 Land Use Capability

Figure 2 is a screenshot from the New Zealand Land Resources Inventory Series (LRIS) Land Use Capability Portal³. It shows that 56 ha of the site is LUC 2 and 147 ha of the site is LUC 3.



Figure 2: LUC Class of the Site (Dark Green is LUC 2, Light Green is LUC 3)

³ https://ourenvironment.scinfo.org.nz/maps-and-tools/app/Land%20Capability/lri_luc_hpl

In the NPS-HPL all land designated as LUC1, 2, and 3 in the LRIS mapping is deemed to be highly productive land until it is remapped at a finer scale by the Regional Council and the maps included in the Regional Policy Statement.

1.3 Productive Capacity as HPL

The productivity of the site is determined by a number of factors including the nature of the soils, climate and scale of the operation.

1.3.1 Soils

In Figure 3 I have included a screenshot of the data held in Manaaki Whenua Landcare Research's SMap online portal of the soils of New Zealand⁴ of the site.



-Figure 3: SMAP record of soils on site

Table 2 lists the soils on the site by sibling description, area and proportion

Table 2: Soils on the site by sibling	g description, area and proportion
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Sibling	Area (ha)	Proportion (%)
Timu_1a.1	80	40
Paha_2a.1	69	34
Clar 1a.1	54	26

Definitions of the key soils physical properties that are listed in the SMAP fact sheets⁵ for the soils that are present on the site are shown in Table 3.

⁵ <u>https://smap.landcareresearch.co.nz/maps-and-tools/factsheets</u>



⁴ https://smap.landcareresearch.co.nz/maps-and-tools/app/St

Table 3: Description of soils on site

Soil Name	Timaru	Pahau	Claremont
SMap Name	Timu_1a.1	Paha_2a.1	Clar_1a.1
Depth Class	Moderately Deep (40- 60cm)	Moderately Deep (70-90cm)	Moderately Deep (40- 80cm)
Rooting Depth	40-60 (cm)	Unlimited	40-85 (cm)
Depth to stony layer	No significant stony layer within	Moderately Deep	No significant stony layer within
Texture Profile	Silt	Silt	Silt
Topsoil Stoniness	Stoneless	Stoneless	Stoneless
Drainage Class	Imperfectly Drained	Imperfectly Drained	Poorly Drained
Profile Available Water (0 to 100cm)	Moderate (91mm)	Moderate to High (130mm)	Moderate (102mm)

The Timaru soils make up 40% of the site. These soils are moderately deep silt soils that are stoneless, imperfectly drained and have a moderate profile available water (PAW). The Pahau soils make up 34% of the site. These soils are moderately deep silt soils that are stoneless, imperfectly drained, with a moderate to high PAW. The Claremont soils make up 26% of the site. These soils are moderately deep silt soils that are stoneless, PAW.

Pahau soils would be theoretically suitable for vegetable, arable and a wide range of pastoral land uses. As Figure 4 shows the area which is proposed to be rezoned is made up of Timaru and Claremont soils which are constrained by their drainage capabilities making them only suitable for pastoral land uses.



Figure 4: SMAP record of soils on the area proposed for rezoning

2 Land Use Constraints

There are a number of significant constraints which have a bearing on the highest and best land use possible on the site.

2.1 Lack of Irrigation Capability

The site does not have an existing well or the consents required for irrigation capability. The site is within the Timaru Groundwater Allocation Zone, which is currently overallocated for takes to extract irrigation water. This means that for those sites that do not have existing rights in place to access and use irrigation water it is not possible to gain access to irrigation water unless it is possible to transfer an existing consent onto the property.

Environment Canterbury's (Ecan) Land and Water Regional Plan section Transfer of Water Permits 4.71 (d) states that;

In an over allocated surface water catchment or groundwater zone, a proportion of the allocated water is surrendered and is not re-allocated, unless there is a method and defined timeframe to phase out over-allocation set out in an applicable sub region Section of this Plan.

The Timaru Groundwater Allocation Zone is classified within the Orari-Temuka-Opihi-Pareora Groundwater subcategory, as outlined in Table 14(zb) of the Canterbury Land and Water Regional Plan (LWRP). Under Clause 14.6.3, footnote 1 of this table, it states: *The transfer permit allocation is only available to holders of existing surface water or stream depleting groundwater permits with a direct, high or moderate stream depletion effect, and only where the existing surface water or stream depleting groundwater permit is surrendered.*

As the site does not hold an existing surface water or stream depleting groundwater permit, it is not eligible to obtain irrigation capability through the transfer of a water permit.

2.2 Conclusion

It is my opinion that the highest and best land use would be dryland dairy support.

3 Proposed Land Use

The proposal involves designating 40 hectares of the site as part of a future residential development area. Initial estimates suggest that this could result in the construction of 380 to 400 housing units. The remaining 163 hectares will remain within the general rural zone. Figure 4 illustrates the proposed development, with 7.83 hectares allocated to Future Development Area 1 (FDA1) and 32.23 hectares allocated to Future Development Area 4 (FDA4).



Figure 4: Proposed Development

4 Assessment of the benefits of the Proposed Rezoning Land (PRL) and the Cost of the loss of HPL.

4.1 Environmental

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My assessment of the benefits of the rezoning and the costs of the loss of HPL from an environmental perspective is shown in Table 4.

Table 4: Assessment of the benefits of rezoning and the costs of the loss of HPL from an environmental perspective.

Assessment Category	Benefits of rezoning	Costs of the loss of HPL
Carbon Sequestration	The proposal includes naturalised open spaces and curtilage vegetation which should add to the site potential to contribute to carbon sequestration	The potential removal of a shelter belt would act as a small loss to carbon sequestration
Support habitat	The individual curtilages of the urban sections will all have a degree of permanent habitat development. There is also a significant amount of naturalised open space within the proposal that will allow for habitat development	The potential removal of a shelter belt could result in a small temporary loss to habit support.
Water filtration	Water filtration will be enhanced by the development, through the creation of	
The		

	sediment traps within drainage systems. This will benefit the environment by filtering sediment and nutrients before they enter waterways.	
Flood mitigation	The diversion of runoff water from the sections into appropriately sized water channels will act as a flood mitigation method.	
Nutrient	The change from rural to urban will have the benefit of a reduction in N loss and a reduction in agricultural greenhouse gas emissions. This comes from the removal of livestock and fertiliser use.	
Climate regulation	The plantings within urban development will enhance the site's ability to assist in climate regulation by sequestering carbon and offering some protection against severe flooding and wind impacts.	
Air and water quality	Water quality will benefit from the proposed urban development by the diversion of runoff of water from the sections.	Air quality will be slightly diminished by the conversion from rural land uses to urban development because there will be more urban activity which has the potential to negatively impact on air quality.
Biodiversity conservation	Biodiversity and conservation will benefit from the plantings that will occur in the curtilages of the sections and within the naturalised open space.	

4.2 Social / Cultural

Our assessment of the benefits of the rezoning and the costs of the loss of HPL from a social and cultural perspective is shown in Table 5.

Table 5: Assessment of the benefits of rezoning and the costs of the loss of	of HPL	from a	social	and
cultural perspective.				

	Assessment Category	Benefits of Rezoning	Costs of the loss of HPL
Sense of belonging and place There will be an increase in the se on the site with the conversion fro multiple households. This will hou household, therefore having a por of belonging and place. Walk/cycl development will also create a pa get together and interact.		There will be an increase in the sense of belonging and place on the site with the conversion from the rural use to that of multiple households. This will house multiple people per household, therefore having a positive influence on the sense of belonging and place. Walk/cycle routes within the development will also create a pathway for the community to get together and interact.	
Agri	The Business Group		8

Social fabric	The social fabric of the urban development will be enhanced on the site and within the wider Timaru District by the additional population that this site will provide housing for.	
Food security		There will be a slight reduction in food production caused by the 40 ha being developed from rural to urban.
Spiritual value	As far as we are aware there are no cultural or heritage sites of therefore this category is judged as having no impact on eithe	on or near the site r of the considerations.

4.3 Economic

Our assessment of the benefits of the proposed rezoning development enabled by rezoning and the costs of the loss of HPL from an economic perspective are shown in Table 6.

Table 6: Assessment of the benefits of rezoning and the costs of the loss of HPL from an econon	nic
perspective	

Assessment Category	Benefits of Rezoning	Costs of the loss of HPL
Income	There will be increased income from multiple sources, including sales, construction, and ongoing maintenance.	The loss of income over a 30 year period would be \$630,429 (workings in appendix A)
Employment (FTE)	There will be increased employment both from the construction and ongoing maintenance which will be required on the site.	The loss of employment from this area of land, based on the B+LNZ representative farm model, equates to 0.4 employees
Flow on impacts to the wider community	There will be considerable flow on impacts to the wider community because the proposed development will result in increased expenditure in the local economy.	While the decrease in inputs sent to processors could potentially impact the district, the volume is so small that any effect on processing companies or their employees is likely to be less than minor.

5 Summary

It is my opinion that the environmental, social, cultural and economic benefits of rezoning the 40 ha area at 82 Kellands Hill Road, outweigh the long-term environmental, social, cultural and economic costs associated with the loss of highly productive land for land-based primary production and meets the requirements of Clause 3.6 (1) (c) of the NPS-HPL.

6 Appendix A

6.1 Economic

I have evaluated the economic cost of losing 40 hectares of the site by calculating the discounted cash flow of the Earnings Before Interest and Tax (EBIT) generated from the site over a 30-year period, with a 6% discount rate applied.

The financial parameters are from The AgriBusiness Groups Dryland Dairy Support Model. The per ha figures and the total are shown in Table 7.

Table 7: B+LNZ Economic return

	\$/ha	Total from
		40 ha
Gross Revenue	2,637	105,480
Operating Expenses	1,493	59,720
Earnings Before Interest and Tax	1,145	45,800

The opportunity cost of the loss of income from the site over a 30 year period is \$630,429.