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# 1 EXECUTIVE SUMMARY

## 1.1 Instructions

On instructions received from Mark Lile of Landmark Lile Ltd, the property has been inspected to provide a productivity report to support an application for a Private Plan Change Request on behalf of CCKV Maitai Dev Co and Bayview Nelson Ltd (BNL).

In accordance with the Scope of Works and Terms of Engagement provided we now provide our formal report. Along with this Executive Summary of the productivity assessment, this report comprises key property data followed by a description of the property and productivity assessment.

CCKV Maitai Dev Co & BNL are authorised to use this report in support of an application to the Nelson City Council for a Private Plan Change Request to the Nelson Resource Management Plan.

## 1.2 Property Details

Property at: Atawhai and Maitai Valley, Nelson City

## 1.3 Purpose of Assessment

Assessment of productive land values in support of a Private Plan Change Request by the applicants.

## 1.4 Key Dates

Date of Report                      23 March 2021

## 1.5 Report Conclusions

- ) The subject land comprises predominantly steep north westerly and south easterly facing hill with easier contoured areas in the Maitai Valley.
- ) The soils have low natural levels of fertility and have limited productive use beyond plantation forestry.
- ) Part of the land has recently been cleared from woody weeds such as gorse and broom and established in pasture. The balance comprises regenerating native vegetation with a small area of pasture on flat land adjacent to the Kaka stream.
- ) The land has not been used for any productive activity over the past 50 years apart from some low intensity intermittent grazing.
- ) The parts of the land that have been recently cleared of weeds and established in pasture are being fenced and will be grazed in the short term. That grazing activity is however, directed at controlling regrowth vegetation to reduce fire risk and the fencing is as much to preclude the public from the land to meet health and safety requirements as it is to retain livestock.
- ) The small area of the property that does have a slightly higher productivity, due to the gentle slopes, is zoned Rural Small Holdings where the minimum area for subdivision is 5000 m<sup>2</sup> with an average of 1 ha which largely precludes any productive use.
- ) The only nearby available source of water for irrigation is from the Maitai River however irrigation from that water source is a prohibited activity.

- ) Any productive potential in the areas to be rezoned Residential and Rural Residential will cease upon development.
- ) The loss of long-term productivity resulting from the proposed activities will be minor.

## **1.6 Land**

Comprising approximately 257 ha of mainly moderately sloping north-westerly facing hills providing a backdrop to the residential development of Atawhai and extending eastwards into the Kaka Valley with approximately 23 ha of easier contoured and flat land. Access points to the property are from the end of Bay View Drive at the northern end, and from Ralphine Way in the Maita Valley at the southern end.

## **1.7 Zoning**

Rural and Rural Small Holdings area in the Nelson Resource Management Plan.

## **1.8 Location**

At Atawhai and the Maitai Valley between 2km and 4 km of the centre of Nelson City.

## **1.9 Brief Property Description**

A parcel of predominately steep, mainly north westerly and south-easterly orientated hill country with approximately 23 ha of easier contoured to flat land adjacent to the Kaka Stream, mainly supporting gorse, broom with areas of regenerating native vegetation. The only structural improvements on the property comprises remnant farm buildings including a dwelling and some fencing. There is a well-established network of access tracks suitable for four-wheel-drive off road capable vehicles.

## **1.10 Methodology**

A physical inspection of the property was undertaken to determine the nature of the land. In particular to verify the soil types as identified in the in “New Zealand Soil Classification Maps”. To compare the physical characteristics of the site with the classification of the land as reported in the “Agriculture New Zealand Classification System for Productive Land in the Tasman District.” To determine any other factors associated with the site that have a practical implication on the productivity of the land.

## **1.11 Author**

This report has been prepared by Dick Bennison, who is a Registered Farm Management Consultant and provides this objective and unbiased productivity assessment. The author has no material connection with the instructing party nor interest in the property.

## 2 PURPOSE

This assessment examines the productive capabilities and values of a parcel of rural land situated in the Atawhai and Maitai Valley areas of Nelson City. It has been prepared to support an application to the Nelson City Council for a Private Plan Change Request to the Nelson Resource Management Plan for residential, open space, suburban commercial, rural and Rural Small Holding uses.

## 3 PROPERTY DETAILS

### 3.1 Location

Situated at Atawhai and in the Maitai Valley, approximately 2 km east of the centre of Nelson City at the southern Maitai Valley Road end and 4.8 km north east of the city centre at the northern end. Access points to the property are from the end of Bay View Road at the northern end and from Ralphine Way in the Maitai Valley at the southern end.

Development in the surrounding area comprises established residential development along the easier slopes of the Atawhai Hills below the north-western boundaries of the property. The areas to the south and east of the properties in the Maitai Valley are predominantly plantation forestry and conservation land on the steeper hills surrounding the valley with a camping ground, golf course and several rural residential properties in the valley. Refer to Chart 1.



Chart 1 location map. Source: Top of the South Maps



The northerly and westerly facing slopes are of a generally easier contour than the colder, southerly and easterly facing slopes, except for the flat area around the Kaka Stream.

## 4.2 Soils

The soil bureau of the DSIR identify the soils on the property as being Atawhai Steepland Soils. The soils are formed on basic igneous rock and tuffaceous sediments of the Brook Street Volcanics and are moderately developed altered sedimentary rocks. The soil profiles are generally moderately developed, reasonably stable topsoil with rock fragments with a weathered subsoil. The shallow, low fertility soils are a significant limitation to the versatility of the land.

The fertility is low to moderate. The soils are slightly acidic, phosphorus is very low, potassium is low, and calcium is medium to low. Although extensive areas of the Atawhai soils were cleared of the natural indigenous forest little success was achieved in farming the land. Cleared areas reverted to bracken, gorse, and scrub with some parts being used for extensive grazing for sheep while large areas carry no stock at all. Low moisture retention in the top-soils and the high permeability of the parent materials seriously lower production in the summer months.

The soils are amongst the least versatile within the Nelson City boundaries and within the adjoining Tasman District.

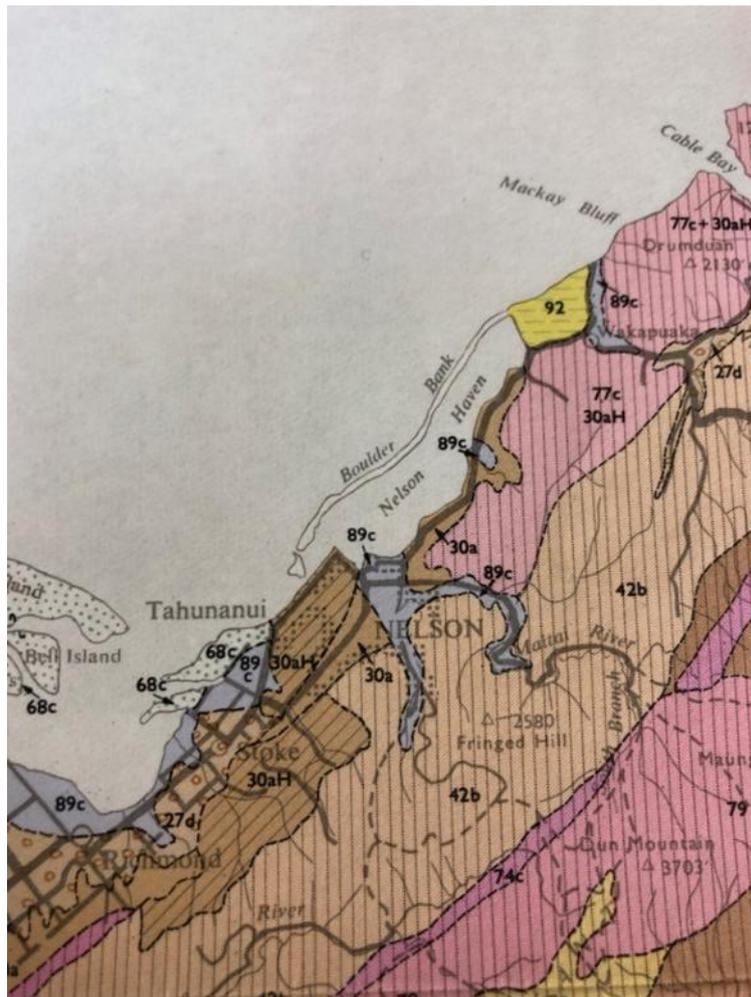


Chart three soil types. Source Soil Map of the South island, New Zealand

### 4.3 Utilisation

The approximate area of the site is 257 ha. Up until the mid-1970s approximately 110 ha of the warmer, easier contoured areas on the northerly facing slopes below the Atawhai Ridge were grazed with mainly sheep and cattle. Increasing costs and low returns through the 1970s and 1980s resulted in the grazing of those areas becoming uneconomic with the level of grazing steadily diminishing over several years as the land steadily reverted to gorse and broom. Those northern slopes have remained largely un-grazed with gorse and broom encroaching over most of that land at various times over the intervening period. That regenerating vegetation has created very high fire risk at times, particularly during exceptionally dry summers and there have been several notable wildfires over those hills in recent years.

The 23 ha of flat and gently sloping land at the southern end of the properties continues to support pasture that is grazed on a semi-intensive basis.

The remaining 124 ha has not been used for any significant productive activity over the past 50 years, although parts of that area may have been in pasture up until the early 1970s. Most of that land is now reverting to regenerating native bush interspersed with areas of gorse broom and scrub.

Regular mowing of the elevated ridge areas and easier northerly facing slopes adjacent to the access tracks has maintained a network of access tracks through the property. Although the land is privately owned it has been regularly accessed by the public for walking and mountain biking in the past. The gorse and scrub over parts of the balance of the land has also been mown, where contour permits, on an intermittent basis primarily to reduce fire risk and to aid in pest management, rather than to establish any productive use.

The present owners of the property have recently entered into a grazing agreement with a nearby farmer. That grazing agreement requires the grazier to establish pastures on the cleared areas and to fence the pastures to retain livestock and limit public access. The grazing of the land is not economically sustainable and there is no grazing rental being paid by the grazier. The primary objective being to use livestock to prevent and control the regrowth of the gorse and broom for pest management purposes and as a means of reducing the fire risk.

## 5 PRODUCTIVITY ASSESSMENT

The productivity of the site has been assessed by adopting the principles of classification utilised in the "Classification System for Productive Land in the Tasman District" prepared by Agriculture New Zealand for the Tasman District Council in December 1994.

### 5.1 Classification System for Productive Land in the Tasman District

The classification for productive land in the Tasman District ranked land capability based on its flexibility and versatility considering the four criteria of:

- Climate
- Topography
- Soil type
- Existing and past uses

This classification system segregates most of the land in the Tasman District into eight classes but with a significant area excluded from the classification system. The excluded areas primarily comprise the conservation estate. Chart 4 shows the eight classes that make up the classification system with the areas of each class and the proportion that that class is of the productive area of the Tasman District. The first seven classes are the productive land of the district and total some 330,696 Hectares and 59.7% of the land classified.

Class	General Use	Area	
		(ha)	(%)
<b>A</b>	Intensive Horticulture	22,223	4.0
<b>B</b>	Semi-Intensive Horticulture	29,958	5.4
<b>C</b>	Intensive Cropping	2,521	0.8
<b>D</b>	Cropping	21,847	3.9
<b>E</b>	Intensive Pastoral	64,439	11.6
<b>F</b>	Extensive Pastoral	136,305	24.5
<b>G</b>	Production Forestry	53,403	9.6
<b>H</b>	Non-Productive	223,519	40.3
<b>Total</b>		<b>554,215</b>	<b>100.0</b>

Chart 4 Tasman District Council Land Productivity Classes

Class A land is considered the most flexible and primarily comprises the flat, fertile, alluvial plains associated with the major rivers of the Tasman District and include the Waimea Plains, Lower Motueka Valley, Riwaka Plain and the Takaka Valley. The soils comprise free draining, fertile alluvial soils and the other factors of climate, topography and past and present use make these areas the most versatile in the district.

The Class B areas are slightly less flexible primarily because of either minor soil limitations such as impeded drainage, as in some of the heavier soils of the Moutere Valley; more adverse climatic conditions, such as the Upper Takaka and Motueka Valleys where frosting is more common; or topography as in the easier slopes of the Moutere Hills. Each successive class is slightly less flexible due to a combination of the four primary factors that make up the classification system and weightings have been applied to each of those factors in determining those classes.

Class H is considered inflexible and non-productive. Classes A, B & C are considered suitable for nursery, floriculture, orcharding, market gardening, viticulture, cropping, pastoral farming and production forestry. There are some restrictions on the range and type of individual crops that could be grown in Classes B & C because of soil, climatic or topographical variations. Class D is suitable for cash cropping, intensive pastoral farming and production forestry, while Class E for dairying and other intensive pastoral uses, extensive pastoral uses and production forestry. Class F is suitable for extensive pastoral uses and production forestry only.

Class G is suitable only for production forestry primarily due to soil type and contour.

## 5.2 The Subject Land

There is no similar document classifying the rural land within the Nelson City Council boundaries. If the Tasman District Council study had included the rural areas of Nelson City the most likely classification of the subject land would have been parts Class E, Class F and Class G.

The class E areas would be the 23 ha of flat and easier contoured pasture-land off the end of Ralphine Way at the Maitai Valley end of the properties. The Class F areas would include the 110 ha easier contoured areas along the Atawhai Ridge and the easier contoured northerly facing slopes dropping from the ridge down to the adjoining residential development. The class G areas would be the steeper, reverted south-westerly facing slopes. Those easier contoured areas occupy approximately 23 ha or 9% of the total land area.

The Nelson Tasman Future Development Strategy document does however have a paragraph on page 38 describing land of High Productive Value which is referenced to the Classification System for Productive Land in the Tasman District, and reads as follows:

*“Means land which has a climate with sufficient sunshine that supports soil temperature and at least one of the following features:*

- ) a slope of up to 15°*
- ) imperfectly drained to well drained soils*
- ) soil with a potential rooting depth of more than .8 m and adequate available moisture*
- ) soil with no major fertility requirements that could not be practically remedied*
- ) water available for irrigation*

*where that combination is to such a degree that it makes a land capable of producing crops at a high rate across a wide range.”*

While parts of the subject land meet some of those criteria there is no part of the property that would meet all of them and there are significant parts of the property that would meet none of them.

In respect to irrigation, the only nearby source of irrigation water is the Maitai River and irrigation is a prohibited activity in the Nelson Resource Management Plan for water sourced from the Maitai River catchment.

The only area of the total land holding under consideration that could be considered to be highly productive and which would meet the definition above, is the flat to gently sloping area adjacent to the Kaka Stream at the Maitai Valley end of the parcel. That area is however zoned Rural Small Holdings where the baseline minimum area for subdivision is 5000 m<sup>2</sup> with an average of 1 ha. That baseline permitted activity largely precludes the land from being used for any productive purpose.

In terms the total productive land base of Nelson City the subject land is amongst the least versatile of the rural land suitable for productive activities.

## 6 IMPACT OF PROPOSED DEVELOPMENT ON PRODUCTIVITY

### 6.1 Proposed Use

The application for a plan change to the Nelson Resource Management Plan seeks to change the zoning from Rural and Rural Small Holdings to a mix of Residential, Rural Small Holdings, Open Space and Rural as appropriate based on location, topography, accessibility and suitability.

The warmer, easier contoured areas of the central Atawhai Ridge and adjacent northerly facing slopes are well suited to an extension of the residential areas of Tui Glen, Bayview Drive and Brooklands. The flat to gently sloping areas at the southern end of the properties access from Ralphine Way are also well suited to residential development.

The steeper, elevated areas on the eastern side of the Atawhai Ridge are better suited to lower density rural residential uses while the steeper, bush clad areas on the eastern margins of the properties are more suited to rural activities. The Riparian areas adjacent to the Kaka Stream and the steeper hill areas over-looking the City are more suited to regeneration back to indigenous vegetation as Open Space areas.



### 6.2 Impacts on Productivity

The areas rezoned for Residential and Rural Small Holdings usage will ultimately be developed into housing and associated residential activities and will cease to have any practical productive capacity. The Open Space and Rural areas are likely to continue to

regenerate into natural vegetation or may have some enhanced plantings associated with potential recreational activities. The productive capacity of those areas will remain largely unchanged and there is the possibility that parts of the Rural areas could be used for production forest.

Although the change in land use will ultimately result in a significant reduction in the area of land available for productive use through residential development, the impact on the overall productive capacity of the Nelson City productive land base will be minimal. The subject land has not been utilised for any productive purpose for the past 50 years and is not likely to be developed for any productive use in the foreseeable future.

The further development of residential usage along the north-westerly facing slopes up to the Atawhai ridge will significantly reduce the fire risk that currently exists on those areas. That fire risk has in the past been managed through intermittent removal of the regenerating gorse and broom that does become a significant fire hazard, particularly during very dry summers and when the vegetation becomes significantly re-established. Normal residential development will significantly reduce the amount of flammable fuel on that hillside.

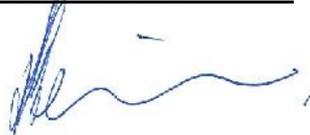
Balancing the loss of productivity due to the change of proposed usage to Residential, Rural Small Holding, Open Space and Rural, against the previous productive history of the land and its low level of productive versatility leads to the conclusion that that loss of productivity is minimal; in the context of the productivity of all of the productive land in Nelson City.

## 7 CONCLUSIONS

- ) The subject land comprises predominantly steep north westerly and south easterly facing hill with easier contoured areas in the Maitai Valley.
- ) The soils have low natural levels of fertility and have limited productive use beyond plantation forestry.
- ) Part of the land has recently been cleared from woody weeds such as gorse and broom and established in pasture. The balance comprises regenerating native vegetation with a small area of pasture on flat land adjacent to the Kaka stream.
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