

Awatea Forest Fund

Matawai Hill Tree Crop Valuation *(Existing Tree Crop)*

February 2022

Commissioned by:

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3 February 2022

Summary

Client and purpose

PF Olsen Ltd (PF Olsen) completed this valuation for Roger Dickie (NZ) Ltd (RDNZ) to provide an estimate of the market value of the planted tree crop on the Matawai Hill property (2433 Matawai Road, Te Karaka, Gisborne).

What is the forest value?

We estimated the value of the tree crop as at 17 January 2022 at:

\$277,000 plus GST (if any)

What is valued?

This valuation is for 12 hectares of radiata pine woodlots on the Matawai Hill property which will be acquired by the Awatea Forest Fund (AFF) and managed by RDNZ.

Method

We assessed the market value of the tree crop by discounting costs and revenues at a discount rate of 7.50% applied to pre-tax cash flows.

Cash flows

No inventory is available for this valuation. PF Olsen estimated yields based on Forecaster. We assessed future costs based on our experience in the Gisborne region. For log price assumptions, we averaged log prices from the last 12 months as our starting point, trending to five-year averages from 2026 (YE March) and onwards.

Valuation standards

We prepared this valuation in accordance with the Forest Valuation Standards prescribed by the New Zealand Institute of Forestry. This valuation of the tree crop complies with the New Zealand equivalent to:

- NZ IAS 41 (International Accounting standard 41 Agriculture)¹, and
- NZ IFRS 13 (Fair Value Measurement).

¹ Issued by the NZ Accounting Standards Board

1. Introduction

Client and purpose

PF Olsen completed this valuation for Roger Dickie NZ Ltd (RDNZ) to provide an independent estimate of the market value of the existing tree crop (radiata pine) planted on the Matawai Hill property.

Data sources

This valuation relies on data from the following sources:

- Property description and proposed subdivision plan in the Information Memorandum prepared by Bayleys.
- Forest description provided by RDNZ and its forest manager, Forest Management (NZ) Ltd (FMNZ).
- Investment plan provided by RDNZ.
- Land valuation provided by Logan Stone.
- PF Olsen's previous experience with the property.
- PF Olsen assessment of future costs and revenues.

Business structure

RDNZ intends to set up the Awatea Forest Fund (AFF) as a Portfolio Investment Entity (PIE) for passive investment.

The proposed business structure is to set up FMNZ as the lessee of the land owned by AFF and pay AFF lease payment at the time of harvest. AFF still technically owns both of the freehold land and tree crop. According to the Deed of Lease between AFF and FMNZ, the lease payment paid by FMNZ will be calculated (inclusive of GST) as:

- **Lease Payment to AFF** = (Gross Revenue – Production Costs) x **95.75%**

FMNZ will retain the remaining 4.25% of the lease payment as a harvest management fee.

Despite a forestry right agreement already been in place, the tree crop is technically still planted on freehold land. As a result, PF Olsen will value the tree crop in this valuation as on freehold land.

Conflict of interest

PF Olsen is independent of RDNZ.

2. Valuation methodology

Valuation standards

We prepared this valuation in accordance with:

- NZIF² Forest Valuation Standards (May 1999). These standards are currently under revision. We have prepared this valuation in accordance with the standards and exposure drafts. This report does not meet all the disclosure requirements of these standards.
- Standards issued by the NZ Accounting Standards Board, specifically NZ IFRS 13 Fair Value Measurement and NZ IAS 41 Agriculture.

Valuation approach

In this estimate of the tree crop market value, we assess the price, assuming a willing buyer and willing seller, both well informed, acting prudently and operating an arm's length transaction. This meets the definition of "fair value" under NZ IAS 13.

We use a method that is widely accepted by New Zealand forestry companies, insurers, consultants, and investors.

In the absence of sufficient sales information of forests that are directly comparable, we estimate the market value of the forest by discounting costs and revenues at an appropriate discount rate. This rate is derived from transaction information: actual sales and investment decisions that have taken place in recent times.

Discount rate

We applied a discount rate of 7.50% to pre-tax cash flows, considering the recent sales of forests, the relative sensitivity of the value of this forest to future log prices and the description of the tree crop.

Inflation treatment

We assume that inflation impacts equally on both costs and revenues. All costs and revenues are expressed in current 2022 NZ dollar terms exclusive of GST.

Current owner's tax liability excluded

We do not include the current tree crop owner contingent income tax liability (if any) on the income from either an actual sale of the tree crop, or the income from harvesting the tree crop at maturity.

Further information

There is further information on the valuation methodology and discount rate assumptions presented in Appendix 1.

² New Zealand Institute of Forestry

3. Land

Introduction

The tree crop is situated on 131.31 hectares (ha) of freehold land (after the proposed subdivision) which will be acquired by Awatea Forest Fund.

Property information

Information of the current certificates of title before the proposed subdivision are listed in Appendix 2.

According to the information memorandum from Bayleys (2021), these titles will be sub-divided into three different lots (Appendix 3):

- **Lot 1 and Lot 3** – will be retained by the vendor (23.84 hectares); and
- **Lot 2** – will be sold to the investors of the Matawai Hill property (131.31 hectares more or less subject to survey).

NES-PF: *National Environmental Standard for Plantation Forestry*

The Resource Management Act governs land use. It is administered by district and regional councils through rules and procedures contained in district and regional plans. The National Environmental Standard for Plantation Forestry (NES-PF) are regulations made under the RMA. Under the NES-PF, land is categorised by erosion susceptibility (Appendix 5). We have considered the NES-PF requirements in our cash flows.

Archaeological sites

Some archaeological/historic sites³ have been identified on the property (Appendix 6).

NZETS: *New Zealand Emissions Trade Scheme*

The Matawai Hill property has not been registered post-1989 land in the New Zealand Emissions Trade Scheme (NZETS). The potential carbon credits from the greenfield new planting are excluded in this tree crop valuation.

Further information

There is further information on legal ownership presented in Appendix 3.

³ Protected under Heritage New Zealand Pouhere Taonga Act 2014.

4. Tree crop

Planted area

We valued 12 ha of radiata pine plantations.

This valuation includes only planted productive tree crops. Areas not suitable for a profitable harvest, or trees planted for amenity, stock shelter, erosion control or other purposes that will not contribute to log production are excluded.

A forest map is presented in Appendix 7.

Stand history

The information provided by the vendor and Bayleys was limited. PF Olsen estimates the stand history and silviculture status based on our field inspection in October 2021 and our previous experience with this property. Table 1 summarises the pruning and thinning status assumed in this valuation.

Table 1: Planted area by stand history

Stand	Planted area (ha)	Planted year	Pruning status	Thinning status
CRAN-01-03	3.5	1998	2 lifts (Age 6 & 10)	Age 10
CRAN-01-04	8.5	1999	2 lifts (Age 5 & 9)	Age 9

Source: RDNZ and PF Olsen

Planted area adjustment

We have applied a -2% adjustment to the planted area to allow for attrition between the last mapping date and harvest date for potential crop losses (wind, disease, wet areas).

Further information

Appendix 8 includes more details on forest and stand areas, and on the estimation methods used.

5. Yields

Yield estimation method

No inventory has been collected for this valuation.

PF Olsen used Forecaster⁴ to derive a set of yield table for the existing plantings based on the site productivity. Details of the Forecaster setting used for this valuation are presented in Appendix 9.

Yield tables

The yield table was based on an export strategy with export grades (i.e. P40, P35, A, K, KI, KIS). Pulplog (Domestic) grade is assumed to be left in the forest at break-even revenue.

Figure 1 illustrates the yield table applied in this valuation by log grade.

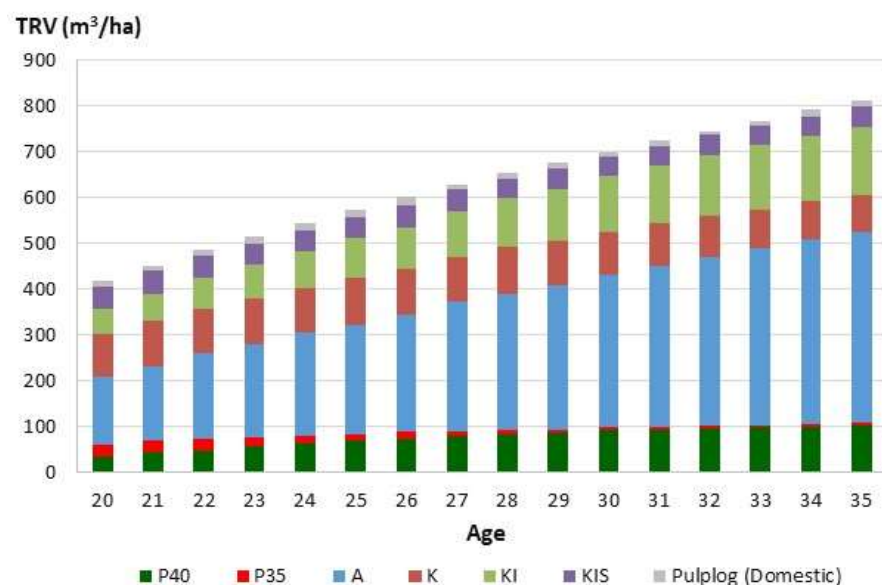


Figure 1: Yield table by grade

Reconciliation

No reconciliation data is available for this valuation. PF Olsen undertook some yield analysis to benchmark the yield table with our internal database and MPI yield table in Appendix 9.

Further information

More details of the yield table for this valuation are detailed in Appendix 9.

⁴ ©Integral Ltd - a growth & yield modelling software

6. Costs

Future costs Future costs used in this tree crop value assessment include forestry costs, annual costs, land costs, log production costs and transport costs.

Forestry costs All the silviculture operations were completed. We have not included any further forestry cost in this tree crop valuation.

Production costs Production costs are defined as all costs from stump to price point, here assumed as at wharf gate (AWG) or at mill gate (AMG).

Our production cost assumptions are based on what we observed during our field inspection and what we have experienced in the region for a similar property. These costs are summarised in Table 2.

Table 2: Production cost assumptions

Costs	\$/unit	Unit
Log & load ⁵	47.00	\$/m ³
Roading construction	9.49	\$/m ³
Road maintenance	2.00	\$/m ³
Pre-harvest inventory	0.23	\$/m ³
Harvest management (<i>lease payment</i>)	3.00	\$/m ³
Post-harvest, other harvest related costs, and contingency	4.00	\$/m ³
Cartage (to port)	14.40	\$/m ³
Total production cost	80.12	\$/m³

⁵ We assume 100% of the planted area will be harvested by hauler-based operation.

Annual costs

Annual costs include the costs of forest management, maintenance and protection, administration, forest insurance and local council rates.

Table 3: Annual cost assumptions

	\$/unit	Unit
Forest management	25.00	\$/ha p.a.
Protection & maintenance	20.00	\$/ha p.a.
Administration	25.00	\$/ha p.a.
Insurance (age 22 – 30)	110-143	\$/ha p.a.
Council rate	46.50	\$/ha p.a.

Notional land rental

A notional market land rental is included to simulate an annual financial cash return for the use of the land. This notional rental is equivalent to the opportunity cost of using this land for growing the tree crop.

From the unimproved land value estimated by Logan Stone (land valuer section in Appendix 4), we applied a notional land rental of \$190 per plantable hectare per annum in this valuation based on 4% of the land value.

Further information

The cost assumptions applied in the valuation are detailed in Appendix 10.

7. Prices

Log price assumptions

Log prices are specified on a roundwood basis for export log grades as specified in the yield table. PF Olsen applied our own regional average conversion factors to convert log prices from NZ\$/tonne or NZ\$/JASm³ to NZ\$/m³ basis for this valuation.

Price point is assumed to be either At Wharf Gate (AWG) for the export markets or At Mill Gate (AMG) for the domestic market (Figure 2).



Figure 2: Eastland Port radiata pine log price series

The log prices used in this valuation represent our projection of future log prices. They are summarised in Table 4.

Table 4: Log price assumptions (YE March)

	Actual	Projection				
Log grade	Last 12 months	2022	2023	2024	2025	2026+
P40	170	171	173	175	177	179
P35	168	145	147	149	150	152
A	131	133	135	136	138	140
K	118	120	121	123	124	126
KI	104	106	107	109	110	112
KIS	94	96	97	99	100	102
Pulplog (Domestic)	55	Break-even				

Further information

Further details on prices used, log price derivation and conversion factors are presented in Appendix 11.

8. Tree crop value

Value assessment method

To assess the tree crop value, we:

- Assessed the net harvest revenue (stumpage) at clearfell.
- Deducted 2% from the planted area to allow for attrition between the last mapping date and date of harvest for potential losses to the crop (wind, disease, wet areas).
- Discounted pre-tax cash flows at a pre-tax discount rate of 7.50% p.a.

Tree crop value

We estimated the value of the tree crop as at 17 January 2022 at:

\$277,000 plus GST (if any)

Sensitivity analysis

The following table shows the effect on the tree crop value of varying both the discount rate and log prices.

Table 5: Sensitivity analysis - log price and discount rate

Change in discount rate	Change in log price (\$ 000s)				
	-10%	+5%	0%	+5%	+10%
9.5%	197	233	268	304	340
8.5%	200	236	273	309	345
7.5%	204	240	277	314	351
6.5%	207	244	282	319	356
5.5%	210	248	286	324	362

Cost to sell

The estimated costs to sell, as defined by NZ IAS 41, are estimated at 2% of market value which is:

\$6,000 plus GST

Such costs include commissions to sales managers and/or agents. These costs have not been deducted from the tree crop market value estimate.

Further information

Further detail as tabulated value by stand is presented in Appendix 12.

Appendix 1: Valuation methodology

Implied Discount Rate (IDR)

To select an appropriate pre-tax implied discount rate, we have analysed forest transactions (Figure 3). In this analysis, we have assessed the cash flow and derived the discount rate that resulted in the price agreed by the seller and the buyer. These implied discount rates provide appropriate benchmarks for the valuation of this forest.

By using Discounted Cash Flow (DCF) analysis with discount rates derived from actual transactions we take account of the specific characteristics of the forest that is the subject of this valuation. The pre-tax costs and revenues estimated for this forest take account of the physical characteristics of the land and the trees and the regulatory constraints as these affect future operations on this forest. Every market transaction implies a discount rate that satisfied both the seller and the buyer. By using DCF analysis we can take account of many sales that have taken place over a relatively long period.

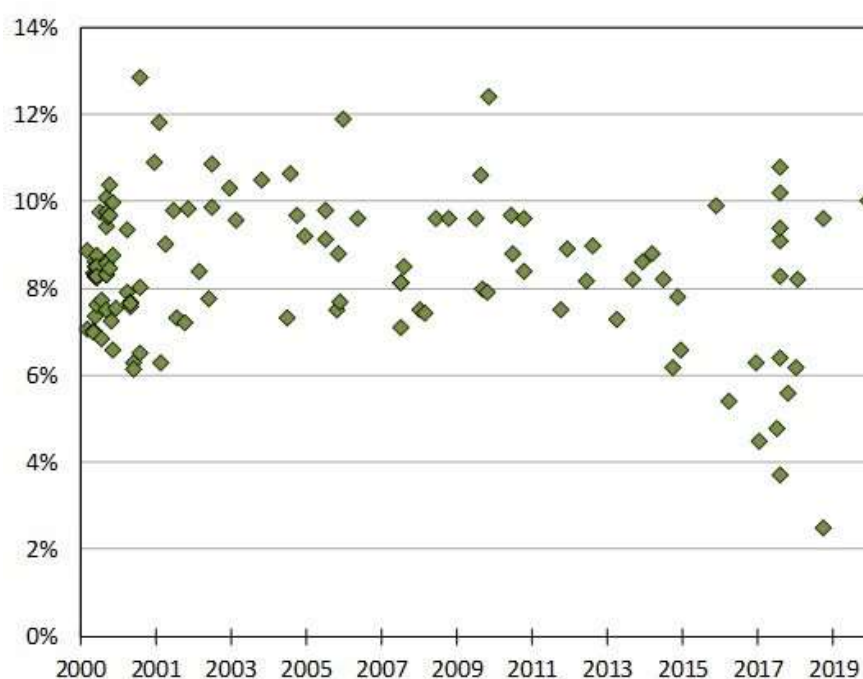


Figure 3: Transaction evidence – IDR on pre-tax cash flows

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The pre-tax implied discount rates listed in Table 6 pertain to the transactions analysed by PF Olsen during the past six years.

Table 6: Implied Discount Rate (IDR) on pre-tax cash flows

Analysis	Implied Discount Rate (IDR)
Recent Transaction Range	2.5% - 10.8%
Average last 6 years	7.5%
Area-weighted average last 6 years	6.5%

Risk and the choice of discount rate

Forestry is subject to various risks and uncertainties, which will affect the costs and the revenues. The physical description of the land and the tree crop contained in this valuation identifies those risks that are specific to this forest. The future cost and yield estimates take into account these forest-specific risks and make allowances for contingent losses. Actual costs and yields could be more or less.

Future revenues are based on an assessment of current log markets. Actual prices could be lower or higher and the impact of this uncertainty is shown in the sensitivity analysis included in this report. The value of this particular forest estate is considered to be moderately sensitive to changes in log prices, because of its scattered nature and generally long distances to established markets. This moderate sensitivity impacts on the discount rate we expect a rational buyer to apply.

After considering the recent sales of forests, the relative sensitivity of the value of this forest to future log prices and the uncertainties with respect to the description of the tree crop, we conclude that for the purpose of estimating the market value of the tree crop, which is the subject of this valuation, a pre-tax discount rate of 7.5% per annum applied to pre-tax cash flows is appropriate.

A sensitivity analysis of the tree crop value over a range of discount rates from 6.5% to 8.5% is presented in Section 8 of this report.

Valuation assumptions

The valuation assumptions are summarised in Table 7.

Table 7: Summary of valuation assumptions

Item	Assumption
Duration of the cash flow	Single rotation
Modelling assumptions	Stand based
Client specified assumptions (if any)	None
Treatment of land costs	Notional land rental
Land value/ tree crop value interrelationship	We have valued the tree crop only.
Treatment of forest roads and other durable assets	Included as avoided costs.

Other relevant legislation

The following legislation is also relevant to the growing and harvesting of the tree crop:

- Biosecurity Act 1993.
- Fire and Emergency New Zealand Act 2017.
- Forests Act 1949.
- Pesticides Act 1979.
- Health and Safety at Work Act 2015.
- Heritage New Zealand Pouhere Taonga Act 2014.
- Climate Change Response Act 2002.

Forest owners can be held liable for breaches of these acts and may be liable for damages incurred by third parties. Management costs included in the valuation reflect the costs of compliance with these acts.

Appendix 2: Land information

Certificate of title Details of the certificates of title are summarised in Table 8.

Table 8: Summary of the Certificates of Title (before subdivision)

Title No.	Description	Title Area (ha)	Rates (excl. GST)
GS117/62	Sect 48 Block IV Waikohu SD	0.3566	
GS6A/222	Lot 4-6 DP 8727, Lot 3 and Part Lot 1 DP 3085	88.5021	
GS6A/220	Lot 1-2 DP8727, Part Lot 4 DP 3085 and Ruangarehu J1 Block	67.8431	
Total		156.7018	6,252

Source: Information Memorandum (Bayleys, 2021) and Gisborne District Council

NZETS: New Zealand Emissions Trade Scheme

The tree crop is situated on pre-1990 and post-1989 forest land as defined in the Climate Change Response Act (2002).

Pre-1990

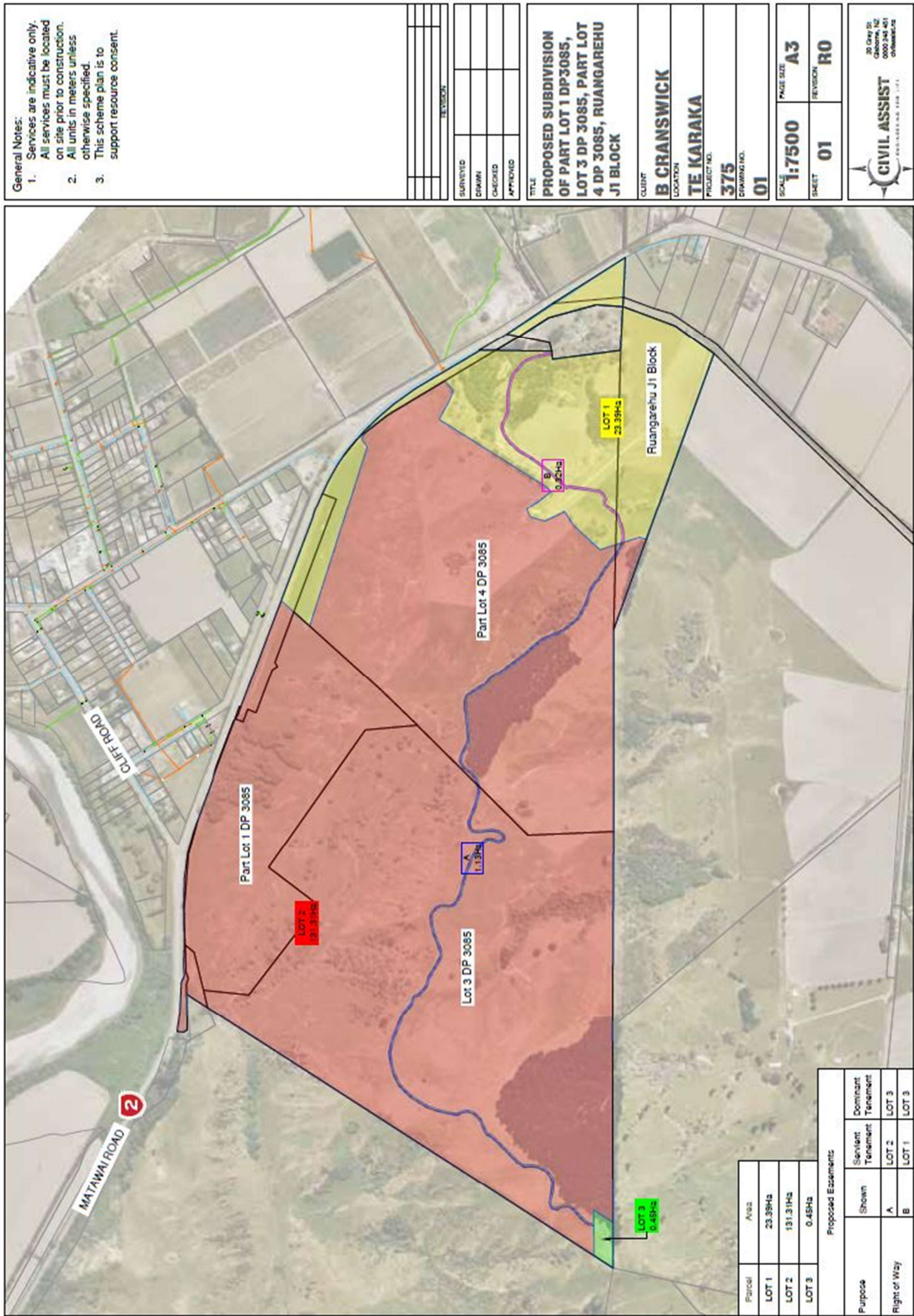
In our opinion, the liabilities associated with possible deforestation of pre-1990 land may impact on the market value of this land, but do not impact on the tree crop market value estimate. They are not included in this tree crop valuation.

Post 1989

Post-1989 land is eligible for registration into the New Zealand Emissions Trading Scheme (ETS). Registered land can receive New Zealand Unit (NZU) carbon credits for carbon sequestered by the tree crop, and may have an NZU liability at harvest.

The vendor is not currently registered as post-1989 land. No carbon value is included in this valuation.

Appendix 3: Proposed subdivision plan



Appendix 4: Land value

Introduction

PF Olsen staff are NZIF⁶ Registered Forestry Consultants, but we are not registered Land Valuers. The Matawai Hill property consists of the acquisition of the land after subdivisions.

Land value

RDNZ engaged Loga Stone (a registered valuer – MPINZ⁷ and ANZIV⁸) in January 2022 to value the subdivided freehold land of the Matawai Hill property (after subdivisions). In the Logan Stone report, the title area “As If Complete/ As Proposed” is assessed to be 131.31 ha more or less. Of which, 98.6 ha more or less is estimated to be productive for forestry use.

The market value of the property (after proposed subdivision) estimated by Logan Stone was \$1.69 million as at 17 January 2022 (Table 9). Of which, the unimproved land value was estimated to be \$0.54 million.

Table 9: Land Value – Matawai Hill (after proposed subdivision)

Item	Area (ha)	\$/ha	Value (\$)
Plantable – greenfield (ground)	20.00	5,800	116,000
Plantable – greenfield (hauler)	90.69	4,640	420,800
Carbon	98.58	10,799	1,065,000
Residual land and Improvements			87,000
Total Matawai Hill			1,690,000

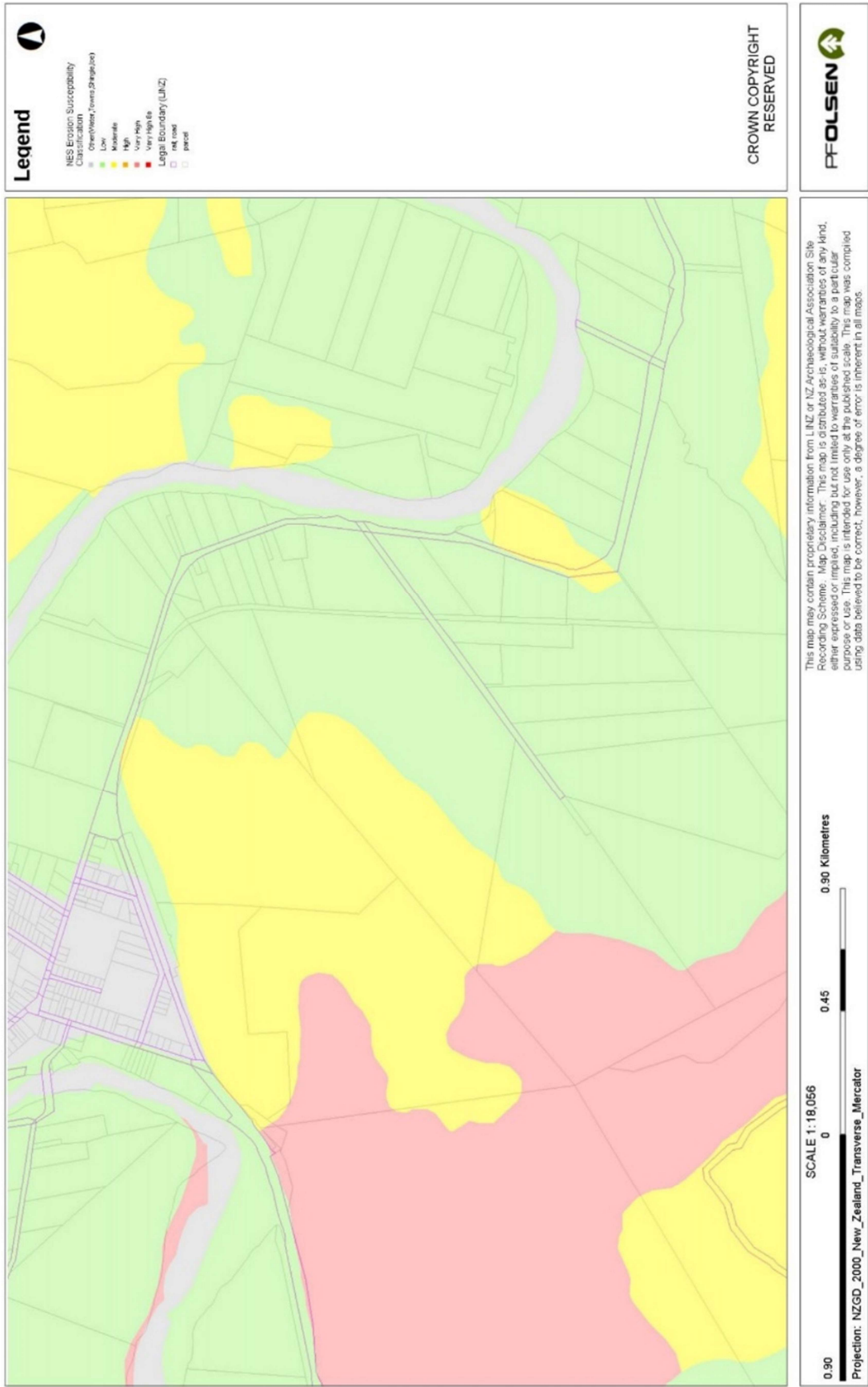
Source: Logan Stone (January 2022)

⁶ New Zealand Institute of Forestry – Registered Forestry Consultant

⁷ Member of Property Institute of New Zealand

⁸ Associates Member of New Zealand Institute of Valuers

Appendix 5: NES-PF (National Environmental Standards for Plantation Forestry)



Appendix 6: Archaeology site



Appendix 7: Matawai Hill property



Appendix 8: Tree crop description

Planted area PF Olsen reviewed the forest map shape files provided by RDNZ/FMNZ. The information used by PF Olsen to review these shape files are summarised in Table 10.

Table 10: Remote sensing information used

Category	Detail
Area description date	08 October 2021
Base data type	Satellite image (georeferenced)
Source of base data	Digital Global
Date of base data	3 March 2021
PF Olsen verification	Using Digital Globe imagery (March 2021)

Attrition and survival Attrition assumptions allows for future losses during the remainder of the rotation from agencies such as wind, disease and land erosion, but not including loss of individual trees from competition, which is accounted for in the growth and yield models used.

Stand history Stand history known by PF Olsen is detailed in Table 11.

Table 11: Stand history information

Category	Detail
Stand history provided	No
Provided by	Relied on vendor and history records held by PF Olsen.
Format/ information system	FIPS
Stand history date	2008
Latest measurement data	Pruning QC data 2008
PF Olsen verification	Field inspection in October 2021
Reliance on stand history	Yes
Regime(s)	Two prune lifts to 6.5 m

Risks

The following risks can affect the tree crop:

- **Fire:**
The East Coast often has dry summers and rural fires are a relatively high risk. Forestry operations, particularly those involving the use of chainsaws, should be stopped during periods of extreme fire risk.
- **Wind:**
Wind damage can occur at any time of year, and the East Coast has suffered from significant losses due to wind in some historical catastrophic events.
- **Snow:**
Heavy snow can damage the crowns of radiata pine planted at higher altitude. This can result in broken tops and a higher incidence of stem malformation.
- **Insects and disease:**
While it remains possible for insects or diseases to become established in New Zealand and threaten forestry plantings, the economic importance of the industry suggests that border controls will continue to be stringent. Should any pest or disease be introduced, eradication or control efforts should allow most affected stands to reach maturity.

Fire and wind are insurable risks, and we have allowed for insurance costs in the valuation. Snow, insects and disease risks are currently uninsurable.

Appendix 9: Growth & Yield model assumptions

Yield tables

No pre-harvest inventory is available for this valuation.

A single generic yield table was derived from Forecaster for this valuation.

Yield estimation methods

The Forecaster settings used to derive the yield tables are presented in Table 12.

Table 12: Forecaster settings

Parameter	Forecaster
Growth model	300 Index (PRAD)
Volume & Taper model	460
Breakage model	1
Stump height	0.3m

Cutting strategy

The cutting strategy applied in Forecaster is summarised in Table 13.

Table 13: Cutting strategy in Forecaster

Grade	Min Small End Diameter (SED) (cm)	Max Branch Size (cm)	Length (m)	Description
P40	42	0	4.4, 5.0	Large pruned log
P35	37	0	4.4, 5.0	Small pruned log
A	33	12	4.0, 6.0	Large sawlog
K	24	12	4.0, 6.0	Small sawlog
KI	26	25	4.0	Industrial log
KIS	14	No limit	4.0	Small Industrial log
Pulplog (Domestic)	10	No limit	3.7-8.1@1m	Domestic pulplog

Consistency of yield estimates with the forest description

Yield tables are generated and expressed in m³/ha. The base volume unit for the valuation is m³, so there is no conversion factor required for the yield estimation process.

Yield adjustments

PF Olsen applied these adjustments to the raw Forecaster outputs:

- A -10% adjustment across all grades
- 10% of P40 and P35 grades were downgraded to KI
- 20% of P40 and P35 grades were downgraded to A
- 25% of A grade was downgraded to KI
- 10% of K grad was downgraded to KIS.

Total recoverable volume (TRV)

Figure 4 compares the adjusted total recoverable volume per hectare with the Gisborne regional average published from MPI⁹. It can be seen that the adjusted TRV from Forecaster is only slightly higher than the regional average.

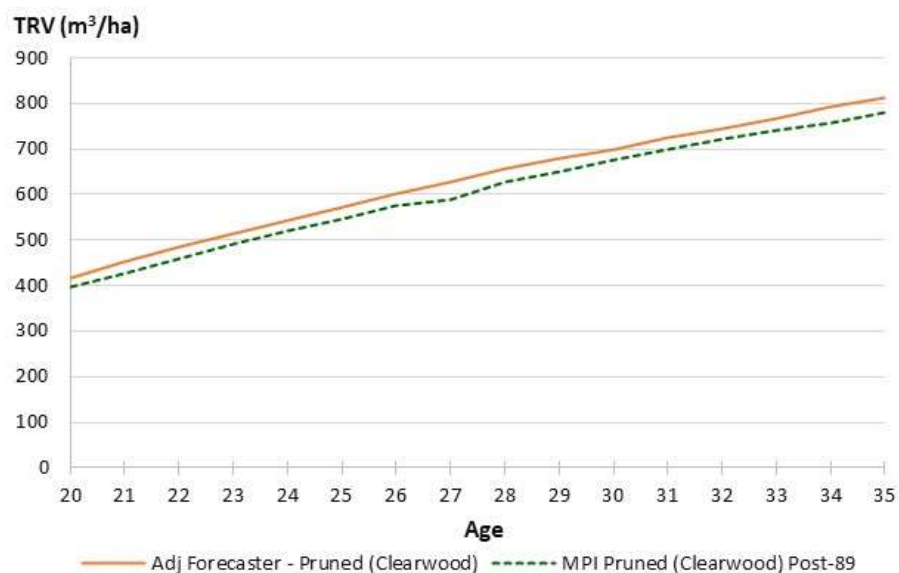


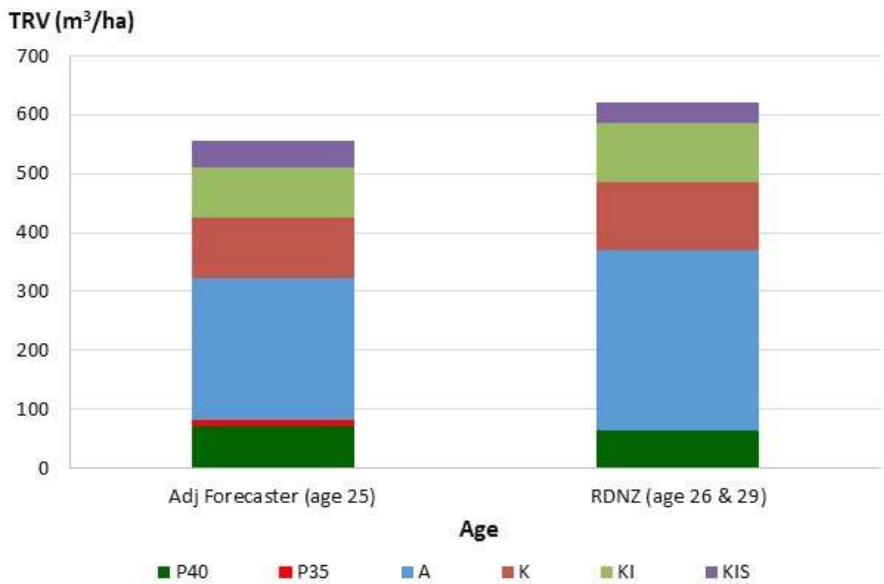
Figure 4: Yield table by total recoverable volume

⁹ MPI – Ministry for Primary Industries

Grade out-turn

Figure 5 compares the adjusted grade out-turn with RDNZ/FMNZ’s regional average at clearfell age around 26 years old. It can be seen that the adjusted Forecaster yield table is in-line with RDNZ/FMNZ’s regional average.

Figure 5: Yield table by grade



Appendix 10: Costs

Forestry costs	All the silviculture operations were completed. We have not included any further forestry cost in this tree crop valuation.
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Production costs	Logging and loading costs depend on the terrain and the piece size at clearfell.
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Logging and loading costs encompass all operations from tree felling to loading, including extraction, delimbing, log-making and fleeting. Also included are costs of logging supervision, training, quality control and labour accommodation.

Log and log costs vary by terrain and types of harvest operations (hauler-based, roadline, ground-based).

Roading construction costs consist of the constructing main roads, internal forestry roads, and skid sites constructions.

Road maintenance costs refers to the costs of maintaining and resurfacing the roading infrastructure.

Pre-harvest inventory costs refers to the cost of gathering forest information prior to harvesting to inform harvest planning and marketing of forest produce.

Harvest management costs include items such as:

- harvesting planning;
- environmental compliance monitoring;
- production monitoring;
- log value recovery quality control;
- log marketing; and
- reporting and documentation.

Post-harvest, other harvest related costs, and contingency costs include:

- debris clearance;
- weighbridge fees and consumables (paint, stencils, etc);
- Forest Growers' Commodity Levy (\$0.33/m³ as of January 2021);
- machinery relocations; and
- other contingency costs.

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Cartage cost assumptions are based on a regression of actual recent cartage rates incurred by PF Olsen in the Gisborne region.

Table 14 illustrates more details of the production cost assumptions.

Table 14: Production cost – detailed assumptions

Costs	%	\$/unit	Unit
Log & load (hauler-based)	100%	47.00	\$/m ³
Log & load (ground-based)	0%	35.00	\$/m ³
Log & load (roadline)	0%	40.00	\$/m ³
Log & load		47.00	\$/m³
Roading construction		5,000	\$/ha
Total recoverable volume per ha		526	m ³ /ha
Roading construction		9.49	\$/m³
Road maintenance		2.00	\$/m³
Pre-harvest inventory		120	\$/ha
Total recoverable volume per ha		526	m ³ /ha
Pre-harvest inventory		0.23	\$/m³
Lease Payment 4.25% of (Gross Revenue – Production Costs)	4.25%		
Harvest management (to FMNZ)		3.00	\$/m³
Post-harvest, other harvest related costs, and contingency¹⁰		4.00	\$/m³
Cartage distance (all export log grades to Eastland Port)		31	km
Cartage rate assumption:			
Cartage		14.40	\$/m³
Total production cost		80.12	\$/m³

¹⁰ This includes: a Forest Growers Commodity Levy of \$0.33/m³.

Annual cost

Forest management cost refers to the annual cost of managing the forest.

Protection & maintenance costs include the cost of pest control and general property maintenance.

Administration refers to the cost of annual auditing, legal, and other administration costs.

Insurance costs include the insurance cost of fire and public liability.

- Insurance costs are age and silviculture regime dependant.
- The detailed insurance cost assumptions applied in the valuation are presented in Table 15.

Table 15: Insurance cost assumptions by age (\$/planted ha)

(\$/planted ha)				Age				
	23	24	25	26	27	28	29	30
Insurance cost	110	115	119	124	129	134	139	143

Council rates include to the annual regional and local council rates.

- For the Matawai Hill property, the total council rate for 2021/22 (YE June) before the proposed subdivision was \$7,189.36 incl. GST or \$6,251.62 excl. GST. Assuming the vendor (previous owner) will bear 20% of the council rates after subdivision and the council rates will increase by 3% from 2021/22, the assumed council rate for 2022/23 (YE June) for the Matawai Hill property would be:

$$= \$6,251.62 \times 80\% \times 103\% \div 110.7 \text{ ha} = \$46.5/\text{plantable ha}$$

Table 16: Annual cost - detailed assumptions

	\$/unit	Unit	Source
Forest management	25.00	\$/ha p.a.	PF Olsen
Protection & maintenance	20.00	\$/ha p.a.	PF Olsen
Administration	25.00	\$/ha p.a.	PF Olsen
Insurance (age 23 – 30)	110-143	\$/ha p.a.	PF Olsen
Council rates	46.50	\$/ha p.a.	Gisborne District Council

Notional land rent

Notional land rental is a non-cash expense to separate the values of tree crop and freehold land. It is also equivalent to the opportunity cost of using this land for forestry

The Matawai Hill tree crop is situated on freehold land. The freehold land (unimproved) is estimated to be around NZ\$4,850/plantable ha as at 17 January 2022 by an independent land valuer, Logan Stone (Appendix 4).

PF Olsen has relied on some forestry-related market rental evidence in determining the freehold notional land rental in this valuation. Given the proximity to the markets and the site productivity of the Matawai Hill property, our internal database suggests that the current market rental yield for a similar property ranges between 2% and 5% of the unimproved land value.

For this valuation, PF Olsen has assumed a market rental yield of 4% of the land value to derive the freehold notional land rental of NZ\$190/planted ha per annum (based on the unimproved forest land value provided by the land valuer).

Appendix 11: Prices

Conversion factors

Conversion factors (JASm³/m³) have been updated based on actual 2019-2020 regional averages for the respective log grades.

Table 17: Conversion factors applied in the Gisborne region

Log grade	JASm ³ /m ³
P40	0.990
P35	0.990
A	1.050
K	0.965
KI	0.970
KIS	0.920

Log price assumptions

Export log prices are derived from an inflation-adjusted average of monthly prices offered to PF Olsen at the Eastland Port (at wharf gate).

We assume the log prices will gradually revert from near-term averages (last 12 months) to long-term averages by 2026 (YE Mar):

- The near-term averages are based on the actual prices that PF Olsen achieved in the last 12 months.
- The long-term averages (from 2026+ YE Mar) are based on the actual prices that PF Olsen achieved in the last 5 years (inflation-adjusted).

In the opinion of PF Olsen, based on market evidence analysed, the log prices assumed in this valuation represent a fair and reasonable view of long-term prices by log grade. These prices are considered suitable for use in estimating the market value of the tree crop situated on the Matawai Hill property.

Appendix 12: Harvest revenue assessment

Stand	NSA (ha)	Planted Year	Species	Revenue (NZ\$/ha)	Production Costs (NZ\$/ha)	Cartage (NZ\$/ha)	Stumpage (NZ\$/ha)	Stumpage (NZ\$/m ³)	Current Age	Clearfell Age
Stand 01	3.7	1998	PRAD	71,862	35,656	7,852	28,354	52.00	23	25
Stand 02	8.4	1999	PRAD	68,127	34,153	7,466	26,509	51.13	22	24

Appendix 13: Cash flows summary

CURRENT ROTATION		Year End March	2022	2023	2024	2025	2026
SUMMARY							
Area of Current Rotation							
Current Rotation Area at Beginning of Year	[ha]	12.0	12.0	12.0	12.0	-	-
Final Fell Harvest Area	[ha]	-	-	12.0	-	-	-
Area Waiting Regeneration	[ha]	-	-	-	-	-	-
Current Rotation Area at End of Year	[ha]	12.0	12.0	-	-	-	-
Volume from Current Rotation							
Volume from Clearfell Operations (CF)	[000 m3]	-	-	-	6.3	-	-
Volume from First Thinning Operations (T1)	[000 m3]	-	-	-	-	-	-
Volume from Second Thinning Operations (T2)	[000 m3]	-	-	-	-	-	-
Volume from Other Thinning Operations (T3+)	[000 m3]	-	-	-	-	-	-
Roundwood Equivalent from Wood Residues	[000 m3]	-	-	-	-	-	-
Total Delivered Roundwood Equivalent Volume (RWE)	[000 m3]	-	-	-	6.3	-	-
Cash Flow from Current Rotation							
Revenue from Log Sales	[NZD 000]	-	-	-	831.2	-	-
Production Costs	[NZD 000]	-	-	-	(415.3)	-	-
Transport Costs	[NZD 000]	-	-	-	(91.0)	-	-
Third-Party Share	[NZD 000]	-	-	-	-	-	-
Operating Margin	[NZD 000]	-	-	-	324.8	-	-
Direct OPEX Expenditure	[NZD 000]	(0.2)	(1.3)	(1.4)	(1.4)	-	-
Direct CAPEX Expenditure	[NZD 000]	-	-	-	-	-	-
In-Direct Area Based SG&A	[NZD 000]	(0.3)	(1.4)	(1.4)	(1.4)	-	-
In-Direct Harvesting Based SG&A	[NZD 000]	-	-	-	-	-	-
In-Direct Non-Harvesting Based SG&A	[NZD 000]	-	-	-	-	-	-
Revenue from 'Other' operations	[NZD 000]	-	-	-	-	-	-
Expenditure from 'Other' operations	[NZD 000]	-	-	-	-	-	-
Investment Cash Flow before Non-Cash Charges	[NZD 000]	(0.5)	(2.7)	322.0	-	-	-
Non-Cash Freehold Land Use Charge	[NZD 000]	(0.5)	(2.3)	(2.3)	(2.3)	-	-
Net Investment Cash Flow	[NZD 000]	(0.9)	(5.0)	319.8	-	-	-