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PROPERTY ■ FORESTRY ■ VALUERS ■ ADVISORS

MARKET VALUATION

LAND, IMPROVEMENTS AND TREE CROP

PUKEKOWHAI GROUP

NGAHAPE DISTRICT, WAIRARAPA

PREPARED FOR

FOREST ENTERPRISES LIMITED

AS AT DATE: 15 FEBRUARY 2021

REPORT DATE: 9 APRIL 2021

9 April 2021

Ref: 10100-001_v1
Valuer: M H Morice

Attention: Mr B Hughes
Forest Enterprises Limited

By Email Only: bhughes@forestenterprises.co.nz

Dear Bert

MARKET VALUATION: LAND, IMPROVEMENTS AND TREE CROP
PUKEKOWHAI GROUP: NGAHAPE DISTRICT, WAIRARAPA

Further to your instructions we have completed a market valuation of the land and improvements for the above portfolio that comprises Te Hau, Te Puhi and Ratahuia and Johnsons Forest Units.

We include an assessment of the 2011-2015 tree crop on the Ratahuia and Johnsons forestry units.

The forestry units (with the exception of Johnsons) is subject to a long term carbon lease, expiring 2028-2031. We provide a land assessment on a post-1989 basis and pre-1990 basis due to the lease encumbrance. For the purpose of the assessment we have adopted pre-1990 values due to uncertainty in relation to carbon benefit upon lease expiry.

The report is to be read in conjunction with the Executive Summary, Scope of Works, Property and Tree Crop Report, Valuation Standards & Policies. We provide market evidence and methodologies adopted in the formation of our opinion of the land and improvements assessed value.

Thank you for your instruction. If you require any further advice please do not hesitate to contact us.

Yours sincerely
MORICE LTD

MARK MORICE
Registered Valuer & Registered Forestry Consultant

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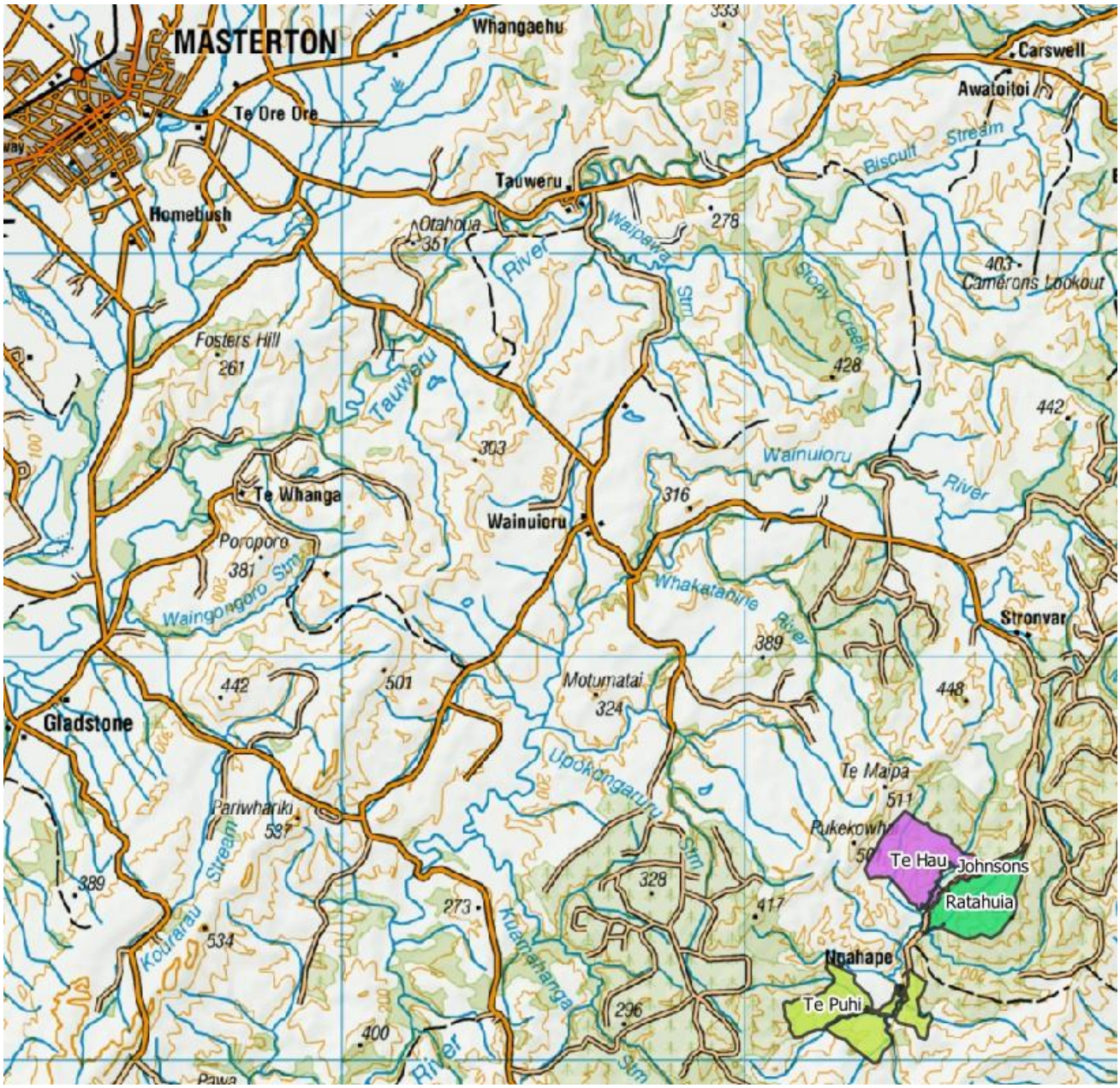
APPENDICES

ABBREVIATIONS

$GBe	Ground Base Equivalent
$HBe	Hauler Base Equivalent
AWR	Awaiting Re-stocking
CAA	Carbon Accounting Area in the ETS
CNI	Central North Island
ESC	Erosion and Sediment Control
ETS	Emissions Trading Scheme
FEL	Forest Enterprises Limited
HBU	Highest & Best Use for land
JF	Johnsons Forest
LEV	Land Expectation Value
masl	Metres above sea level
Morice	Morice Limited
MPI	Ministry of Primary Industries
NES-PF	National Environmental Standards – Production Forestry
NPA	Non Productive Area
NSA	Net Stocked Area
NZIF	New Zealand Institute of Forestry
NZCF	New Zealand Carbon Farming
NZU's	New Zealand Unit of Trade in the ETS
OLB	Outside Legal Boundary
PLE	Probable Limit of Error
PPA	Potentially Productive Area (includes NSA, AWR along with area within roads and skids)
PPHA	Potentially Plantable Per Hectare
RF	Ratahuia Forest
TH	Te Hau Forest
TP	Te Puhi Forest
TRV	Total Recoverable Volume
WG1	Pukekowhai Group

Section 1: PROPERTY & LOCATION MAPS

Map outlines indicative property boundaries with respective Forestry Units labelled



Map outlines approximate location of the four Forestry Units

Section 2: EXECUTIVE SUMMARY

Client: Forest Enterprises Limited.

Property Addresses: The Pukekowhai Group comprises three Forestry Units known as Te Hau, Te Puhi, and Ratahuia and Johnsons situated approximately 45 kilometres south-east of Masterton in the Ngahape district.

Instructing Party: Mr Bert Hughes of FEL.

Instructions: To provide a market valuation of the land and improvements in a cutover state with harvest infrastructure in place, along with the second rotation tree crop on RF and JF, for the forests contained within the WG1, in order to determine the collective ownership share apportionment.

Related Parties: The Partners of Te Hau, Te Puhi and Ratahuia forestry units.

Date of Inspection: 15 February 2021.

Date of Assessment: 15 February 2021.

Brief Description: Four Forest Units comprising a legal area of some 1,053 hectares of which 862 hectares (82% of legal area) is considered productive land. There is some 548 hectares assessed as post-1989 land within the ETS that is or has been previously contained within a CAA. The balance land has been classified as pre-1990. The weighted average lead distance to the CentrePort at Wellington is some 144km with chip and sawlog processing in Masterton at some 51 kilometres distant. The ground base ranges from 27% for Ratahuia to 100% to Johnsons with the weighted average estimated at 45.1%.

The forestry units are subject to carbon leases to NZCF commencing August 2012, with RF and TF expiring December 2028 and TP expiring 31 December 2031. NZCF has been granted the right to be the Participant in the ETS and therefore no carbon benefit will accrue to the properties until expiry of the leases. There is uncertainty of any carbon benefit to the Lessors upon expiry given the change in carbon accounting method.

The Forestry Units are situated in a proven forestry area, and are well located in terms of sawlog to Kiwi Lumber, Masterton and pulp and chip plant in Masterton. However they are limited with relatively long lead distances to export at the Port of Wellington and restricted domestic processing capacity in the Wairarapa region.

Valuation Approach:

- Market approach for land and improvements.
- Income and costs compound approach for the tree crop.

Valuation (NZD):

Pre-1990 Valuation Summary	Total	Ratahuia	Te Hau	Te Puhi	Johnsons
Improvement Value	280,000	71,000	104,000	104,000	1,000
Land Value	2,259,000	564,000	852,000	835,000	8,000
Total Land & Impts Value	**2,539,000**	**635,000**	**956,000**	**939,000**	**9,000**
Tree crop	**229,000**	**224,000**			**5,000**
Forest Value	**2,768,000**	**859,000**	**956,000**	**939,000**	**14,000**

TWO MILLION SEVEN HUNDRED & SIXTY EIGHT THOUSAND DOLLARS ($2,768,000) plus GST, if any.

Conditions of Valuation:

- The valuation is on the basis the Forestry Units are encumbered from the existing carbon leases in place.
- Land values have been assessed on a pre-1990 basis.
- It is assumed there is legal cross access for harvesting purposes over the Forestry Units if required.
- This assessment is on the basis there is no contingent ETS liability on post-1989 land with surrender of NZUs to the Crown.
- There are no deforestation liabilities associated with the pre-1990 land.
- The tree crop assessment is confined to the 2011-2015 stands on RF and JF.

Key Valuation Parameters:

Legal area	1,053ha
PPA	861.7ha
NSA (tree crop subject to valuation)	61.4ha
Ground base terrain (weighted average)	45.1%
Post-1989 eligible area	547.9ha
Post-1989 $GBe	$4,600-$4,750/ha
Post-1989 $HBe	$3,220-$3,325/ha
Pre-1990 $GBe	$3,000-$3,150/ha
Pre-1990 $HBe	$2,100-$2,205/ha
Unproductive land	$100/ha
Harvest infrastructure	$300/ppha
Discount rate (pre-tax real)	7.75%
Compound rate	3%
Log price	3 year return to average

Valuer:

M H MORICE
B.Com.Ag (VFM), Dip.Fore., SPINZ, ANZIV, RMNZIF
Registered Valuer & Registered Forestry Consultant

Section 3: SCOPE OF WORK

The Valuer: (Contractor)	The valuation will be undertaken by Mark Morice, Registered Valuer, Registered Forestry Consultant and Director of Morice. The Valuer has the requisite experience and competence to undertake the valuation assignment, has no material connection with the instructing party, and is in a position to provide an objective and unbiased valuation. We have not sought any material assistance from other persons in relation to any aspect of this assignment.
The Client:	FEL.
Other Intended Users:	The Partners of Te Hau, Te Puhi and Ratahuia forestry units.
Asset(s) Valued:	Johnsons, Ratahuia, Te Hau and Te Puhi Forestry Units situated on Ngahape Road in the Ngahape District, 45kms southeast of Masterton.
Purpose of Valuation:	To provide a market valuation of the land and improvements in a cutover state with harvest infrastructure in place, along with the 2011-2015 tree crop on RF and JF, for the forests contained within the WG1, in order to determine the collective ownership share apportionment.
Valuation Currency:	New Zealand Dollars (NZD).
Basis of Value:	Market value defined as the use of an asset that maximises its productivity and that is possible, legally permissible and financially feasible. This highest and best use may be for continuation of an assets existing use or for some alternative use. This is defined by the use that a market participant would have in mind for that asset when formulating the price that it would be willing to bid.
Valuation Date:	Will be the date of inspection.
Nature & Extent of Valuer's Work:	A full inspection, inquiry and analysis of all pertinent information will be undertaken.
Nature & Source of Information Relied Upon:	It is assumed that the Client will provide any pertinent information to the property which may be required for valuation purposes at the time of inspection. • Area Statement and Stock Book Report. • Stand, setting and ETS shape files. • Planting Audit Reports. • ETS registration data. • Establishment costs including planting, release spray and tracking. • Other data pertinent to the valuation exercise. The Valuer will also rely upon the following information: • Information obtained at time of property inspection. • LINZ GIS spatial and related data. • Information held on file at Morice.

- Record of Title information.
- Google Earth and QuickMap cadastral and aerial photography.
- District Planning and Resource Consent/Land Use zoning and planning data.
- Morice Ltd internal and third party sales data.

Special Assumptions:

Should any limitations of the investigation/enquiry/analysis/information supplied it will be reported under 'Special Assumptions'.

Conditions:

Our report is limited as follows:

- We have not sighted a current Land Information Memorandum (LIM). Unless stated this report is subject to there being no outstanding requisitions or adverse factors affecting the property.
- No environmental, geotechnical, or land survey will be undertaken.
- All improvements are assumed to lie within Title boundaries.
- No allowance will be made to reflect the balance of any outstanding mortgages, capital, interest or any expenses for realisation.
- No analysis will be undertaken as to any potential contingent liability at harvest, from NZUs claimed to date.
- The adopted post-1989 ETS eligible areas based on historic registered areas

Reporting Type:

A Formal Valuation Report in full format will be provided, that complies with all requisite professional valuation standards. Refer to "Confirmation of Compliance with Valuation Standards" for an outline of the standards complied with.

Restrictions of Use:

Use of this report is restricted to those named in "The Client" and "Other Intended Users" in this Scope of Works, and no distribution or publication is permitted without the express authority of Morice.

Confirmation of Compliance with Valuation Standards:

The valuation has been undertaken with reference to the following Standards:

- International Valuation Standards (IVS).
- Australian and New Zealand Valuation Standards and Guidance Notes (ANZVGN).
- Institute of Forestry (NZIF) Forest Valuation Standards 1999, Technical Practice and Discussion Papers.

Significant Valuation Uncertainty:

The real estate market is being impacted by the uncertainty that the COVID-19 outbreak has caused. Market conditions are changing daily at present. As at the date of valuation, we consider that there is a significant market uncertainty.

This valuation is current at the date of valuation only. The value assessed herein may change significantly and unexpectedly over a relatively short period of time (including as a result of factors that the Valuer could not reasonably have been aware of as at the date of valuation).

We do not accept responsibility or liability for any losses arising from such subsequent changes in value. Given the valuation uncertainty noted, we recommend that the user(s) of this report review this valuation periodically.

Section 4: LAND REPORT

4.1 STATUTORY INFORMATION

4.1.1 LEGAL DESCRIPTION

1 Each Forestry Unit is held in Fee Simple in the Wellington Land Registration District.

Table 1: Records of Titles

Block	Registered Owner	Title	Legal Description	Area (ha)	Forest Area (ha)
Te Hau	Trustees Executors Limited	WN41B/129	Part Section 12 Ngahape Settlement	346.26	346.26
Te Puhi	Trustees Executors Limited	WN28A/536	Part Lot 1 Deposited Plan 13663	67.59	
	Trustees Executors Limited	WN41A/340	Lot 4 Deposited Plan 74147	0.58	
	Trustees Executors Limited	WN41A/341	Part Section 12 Block I Kaiwhata Survey District, Part Lot 1 Deposited Plan 10603 and Part Run 49	334.00	402.16
Ratahuia	Trustees Executors Limited	WN40C/828	Part Section 13 Ngahape Settlement	302.01	302.01
Johnsons	Forest Enterprises Limited	WN518/85	Section 11 Ngahape Settlement	2.66	2.66
Total (legal area more or less)				**1,053.09**	**1,053.09**

4.1.2 INTERESTS

2 **WN41B/129**

Subject to Section 59 Land Act 1948

- Appurtenant hereto is a right of way created by Transfer B231105.3 - 4.5.1992 at 2:10 pm
- 9230338.1 Lease Term commencing from 31.8.2012 and terminate on 31.12.2028 CT 600817 issued - 23.11.2012 at 11:52 am
- 9280997.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - 7.1.2013 at 4:00 pm
  Outlines land post-1989 and forms part of a CAA under the Climate Change Response Act 2012.

3 **WN28A/536**

- 9110030.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - - 29.6.2012 at 1:37 pm
- 9230359.1 Lease Term commencing on 31.8.2012 and terminating on 31.12.2031 CIR 600820 issued - 23.11.2012 at 11:52 am
- 9280997.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - 7.1.2013 at 4:00 pm

4 **WN41A/340**

- Subject to a right of way over part marked A on DP 74147 created by Transfer B247630.3 - 6.8.1992 at 11.42 am
- 9230359.1 Lease Term commencing on 31.8.2012 and terminating on 31.12.2031 CIR 600820 issued - 23.11.2012 at 11:52 am

5 **WN41A/341**

- Subject to rights of way over parts marked B (affects Part Lot 1 DP 10603) and C (affects Part Run 49) on DP 74147 created by Transfer B247630.3 - 6.8.1992 at 11.42 am
- 9110056.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - 2.7.2012 at 11:50 am
  Relates to part of the land having a pre-1990 status under the Climate Change Response Act 2002.

- 9230359.1 Lease Term commencing on 31.8.2012 and terminating on 31.12.2031 CIR 600820 issued - 23.11.2012 at 11:52 am
- 9280997.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - 7.1.2013 at 4:00 pm

6 **WN40C/828**

- Subject to Section 3 Petroleum Act 1937
- Subject to Section 8 Atomic Energy Act 1945
- Subject to Section 3 Geothermal Energy Act 1953
- Subject to Sections 6 and 8 Mining Act 1971
- Subject to Sections 5 and 261 Coal Mines Act 1979
- Subject to Part IV A Conservation Act 1987
- 9230297.1 Lease Term commencing 31 August 2012 and terminating 31 December 2028 CIR 600812 issued. -23.11.2012 at 11:51 am
- 9236042.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - 26.11.2012 at 4:15 pm
- 9280997.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - 7.1.2013 at 4:00 pm
- 11160396.1 Caveat by Wairarapa Estate Limited - 28.6.2018 at 12:33 pm

7 **WN518/85**

- Subject to Section 206 Land Act 1924
- 8833875.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - - 8.8.2011 at 3:56 pm

4.1.3 CARBON LEASE

8 The titles are subject to carbon leases. We refer to some of the details below:

9 **Lease 9230397_1 (Ratahuia Forest))**

Lessor:	Trustees Executors Limited
Lessee:	New Zealand Carbon Leasing (FEL) Limited
Term:	31 August 2012 - 31 December 2028
Rental:	Not provided in lease document
Rent Review Dates:	29 April in each year of the term, commencing 29 April 2014.
Rent Review:	By the percentage equal for the CPI for the four quarters ending on 31 December in the year prior to the rent review date.
Permitted Use:	The Lessor consents to the Registration of the Lessee as a participant under the ETS. The Lessee has no right to the tree crop. The Lessee indemnifies the Lessor against any actions, claims, demands, proceedings, damages, costs etc in relation to the Act.
Outgoings:	The Lessor to pay outgoings in the form of rates

10 **Lease 9230359_1 (Te Puhi Forest)**

Lessor:	Trustees Executors Limited
Lessee:	New Zealand Carbon Leasing (FEL) Limited
Term:	31 August 2012 - 31 December 2031
Rental:	Not provided in lease document
Rent Review Dates:	29 April in each year of the term, commencing 29 April 2014.
Rent Review:	By the percentage equal for the CPI for the four quarters ending on 31 December in the year prior to the rent review date.

Permitted Use:	The Lessor consents to the Registration of the Lessee as a participant under the ETS. The Lessee has no right to the tree crop. The Lessee indemnifies the Lessor against any actions, claims, demands, proceedings, damages, costs etc in relation to the Act.
Outgoings:	The Lessor to pay outgoings in the form of rates

11 **Lease 9230338_1 (Te Hau Forest)**

Lessor:	Trustees Executors Limited
Lessee:	New Zealand Carbon Leasing (FEL) Limited
Term:	31 August 2012 - 31 December 2028
Rental:	Not provided in lease document
Rent Review Dates:	29 April in each year of the term, commencing 29 April 2014.
Rent Review:	By the percentage equal for the CPI for the four quarters ending on 31 December in the year prior to the rent review date.
Permitted Use:	The Lessor consents to the Registration of the Lessee as a participant under the ETS. The Lessee has no right to the tree crop. The Lessee indemnifies the Lessor against any actions, claims, demands, proceedings, damages, costs etc in relation to the Act.
Outgoings:	The Lessor to pay outgoings in the form of rates

4.1.4 RESOURCE MANAGEMENT

12 The Forestry Units reside within the Masterton District along with one title within Te Puhi in the Carterton District. Rules are governed by the combined Wairarapa District Plan. The forestry units reside within the Greater Wellington Regional Council.

13 **Wairarapa Combined District Plan**

Zone:	The property has a "Rural Primary Production" Zone as identified in the Operative District Plan as at 25 May 2011.
Activities:	Plantation forestry is a Permitted Activity provided there is a 20m setback from the centre line of any formed public road, 10m from any boundary, 35m from Residential Zone, 20m from high voltage transmission line and 10m planting setback from the margin of any permanent flowing water body with a bed of 1m or more.
Subdivision:	All lots shall have a minimum lot area of 4 hectares and minimum road frontage of 100m for front lots, except for: • Where the Certificate of Title for the site was issued before 26 August 2006, or resource consent to subdivide was granted for the site before 26 August 2006, no minimum lot area applies for a lot containing an existing dwelling provided the balance lot has a minimum lot area of 4 hectares; or • Where the Certificate of Title for the site being subdivided was issued before 29 March 2008, or resource consent to subdivide was granted for the site before 29 March 2008, up to two lots may have a minimum lot area of 1 hectare provided they have a minimum average lot area of 2 hectares and minimum road frontage of 100m for front lots.

4.1.5 GREATER WELLINGTON REGIONAL COUNCIL

Forestry:	Forestry activities are largely controlled by the NES-PF.

4.1.6 NATIONAL ENVIRONMENTAL STANDARDS – PLANTATION FORESTRY (NES-PF)

14 The NES-PF came into effect 1 May 2018 creating a nationally consistent set of regulations for any forest larger than one hectare that has been planted specifically for commercial purposes and harvest. Forest activities regulated by the NES-PF are afforestation, pruning, thinning to waste, earthworks, river crossings, forest quarrying, harvesting, mechanical land preparation and replanting.

15 Most forestry activities are permitted by the NES-PF as long as foresters meet specific conditions to prevent significant adverse environmental effects. The regulations are based on existing good practice standards within the forestry industry.

16 If foresters are unable to meet these conditions, they will need to apply for resource consent.

17 All land has been given an erosion susceptibility classification with there being four categories:

1. Green - low risk of erosion
2. Yellow - moderate risk of erosion
3. Orange - high risk of erosion
4. Red - very high risk of erosion

18 Green and yellow risk classifications have lower erosion susceptibility and forest activities are permitted. Orange and red are more susceptible to erosion and stricter requirements apply and some forest activities cannot be carried out without resource consent.

19 Some of the conditions of the NES-PF are:

- For afforestation, permitted activity conditions include setbacks for tree planting from rivers, lakes, wetlands, coastal areas and significant natural areas. This includes planting within 5 meters of a perennial river with a bank full channel width of not less than three meters, or wetland larger than 2.5 hectares, or planting within 10 metres from a perennial river with a bank full channel width of 3 metres or more, lake larger than 0.25 hectares. Afforestation must not occur within 30 meters of a coastal marine area.

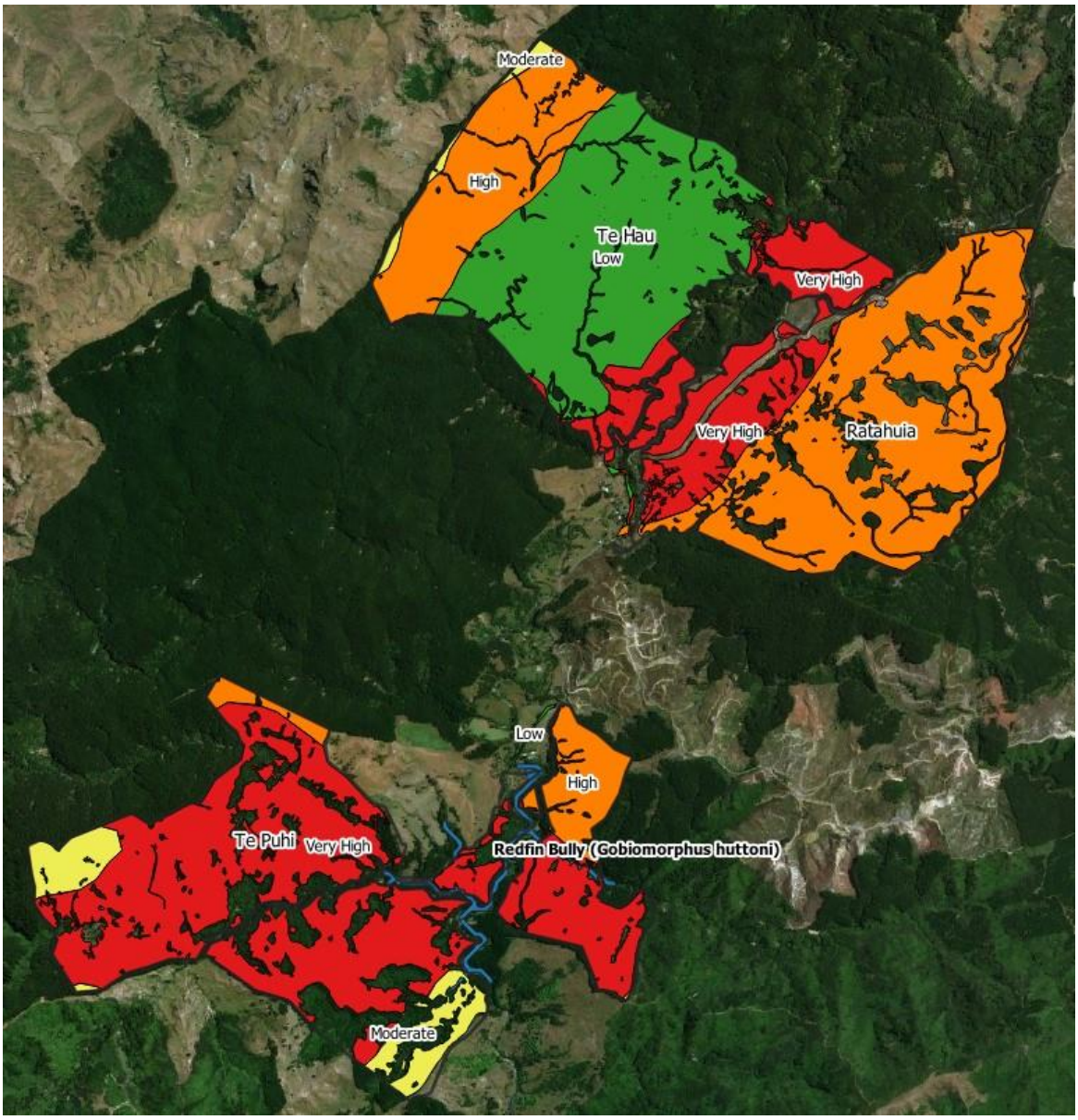
- For harvesting to be a permitted activity, foresters must submit a harvest plan to their local Council if requested. The plan should identify environmental risk and list mitigations to achieve compliance with permitted activity conditions.

- For earthworks – permitted activity conditions include the requirement to install and maintain stormwater and sediment control measures. Spoil cannot be deposited where it may readily enter or deliver sediment into a water body, coastal area or significant natural area.

- Red zone (very high) land requires consent for planting and harvesting operations. Orange zone (high) requires harvest consent for land with a slope of 25^{o} or more where, in a three month period, there will be a side cutting height of 2-3m over a continuous length of more than 100m and deposition of more than $500m^3$ of spoil.

20 The following map outlines the NES-PF land-classifications based on the legal area.

NES-PF Classification Map



21 The following table outlines the areas associated with each erosion class, where predominantly most of the forest units have high t very high erosion susceptibility, with the exception of Te Hau being predominantly low erosion susceptibility.

Table 2: Erosion Susceptibility Classification by Area (ha) & Percentage Share

ESC2018	Low	Moderate	High	Very High	Total
Ratahuia			191.4	46.5	237.9
Te Hau	181.5	4.9	83.1	48.1	317.6
Te Puhi	0.5	31.2	33.2	238.9	303.8
Johnsons				2.5	2.5
Total	**182.0**	**36.1**	**307.7**	**335.9**	**861.7**
Ratahuia	0%	0%	80%	20%	100%
Te Hau	57%	2%	26%	15%	100%

ESC2018	Low	Moderate	High	Very High	Total
Te Puhi	0%	10%	11%	79%	100%
Johnsons	0%	0%	0%	100%	100%

22 The NES-PF also has provisions for fish spawning where fresh water species are vulnerable to disturbance during spawning. The NES-PF identifies 33 fish species that require protection from disturbance during spawning. This imposes controls on certain forest activities during these times.

23 There are identified migratory fish spawning habitats bisecting the Te Puhi Forestry Unit in the Kaiwhata River.

4.1.7 RATES

24 The following table outlines the Government rating valuation and annual rates included for information purposes only. Capital value assessments are used to set rates for residential, commercial and rural properties and are not necessarily reflective of market value. It excludes any value associated with commercial tree crops.

25

Table 3: Rating Details

Forest Unit	Valn Ref	Valn Date	Area (ha)	Impts	Land	Capital	Total
Te Hau	17990-10200	Sep/20	346.3	50,000	900,000	950,000	3,326
Te Puhi	17990-09900	Sep/20	334.6	60,000	760,000	820,000	3,094
Te Puhi	18180-12900	Sep/17	67.6	8,000	112,000	120,000	401
Ratahuia	17990-10000	Sep/20	302.0	50,000	680,000	730,000	2,742
Johnsons	17990-10600	Sep/20	2.7	5,000	160,000	165,000	1,099
Total			**1,053.1**	**173,000**	**2,612,000**	**2,785,000**	**10,662**

4.2 LOCALITY

4.2.1 SITUATION & AMENITIES

26 The Forestry Units are situated on Ngahape Road, Ngahape being approximately 42 kilometres southeast of Masterton.

27 Land use in the area comprises predominantly pastoral farming, exotic forestry and retired native areas.

28 Skilled labour and supporting forestry services are sourced from the wider Wairarapa region.

29 The below table outlines the estimated average lead distance to timber processing and export facilities (including 1km internal).

Table 4: Estimated Average Lead Distances

Grade	Ratahuia	Te Hau	Te Puhi	Johnsons
Sawlog (pruned) Dannevirke	149	150	151	149
Sawlog (unpruned) Masterton	49	51	52	49
Pulp Masterton	49	51	52	49
Export Wellington	140	141	151	140
Wt Avg by destination	110	112	116	110

30 The Forestry Units have relatively close lead distance to pulp (chip) and sawlog processing at Masterton, with export logs sent to CentrePort in Wellington.

31 Domestic sawlog at Kiwi Lumber Masterton is limited to logs within minimum SED of 20cm and maximum LED of 48cm. The annual production is between 25,000 and 50,000 cubic metres of sawn lumber per annum.

32 CentrePort located in Wellington handles approximately 10.5 million tonnes annually with forestry products being one of the major products handled. There is the benefit of the Waingawa rail yard where logs are delivered by truck, scaled and stored pending rail transport to CentrePort.

33 There is a chipping yard for domestic pulp situated at Waingawa, however is of marginal return given chip is trucked to Pan Pac Forest Products in Napier.

34 In general, the Forestry Units are disadvantaged with lead distance to pruned and export. The Forestry Units do benefit from some domestic processing in the Wairarapa Region, however, has limitations on the amount of logs able to be supplied and their size.

4.2.2 CLIMATE

35 The following table is a summary of the climate for the Forestry Units.

Table 5: Climate (source NIWA)

Average Annual Rainfall	Mean Annual Wind	Median Annual Temperatures	Comment
1200-1400 mm	5-7m/s Westerly	12-14°C	Generally well distributed rainfall. Ground frosts are expected during winter months. Climate suited to the growing of Pinus radiata and other exotic tree species.

4.3 LAND

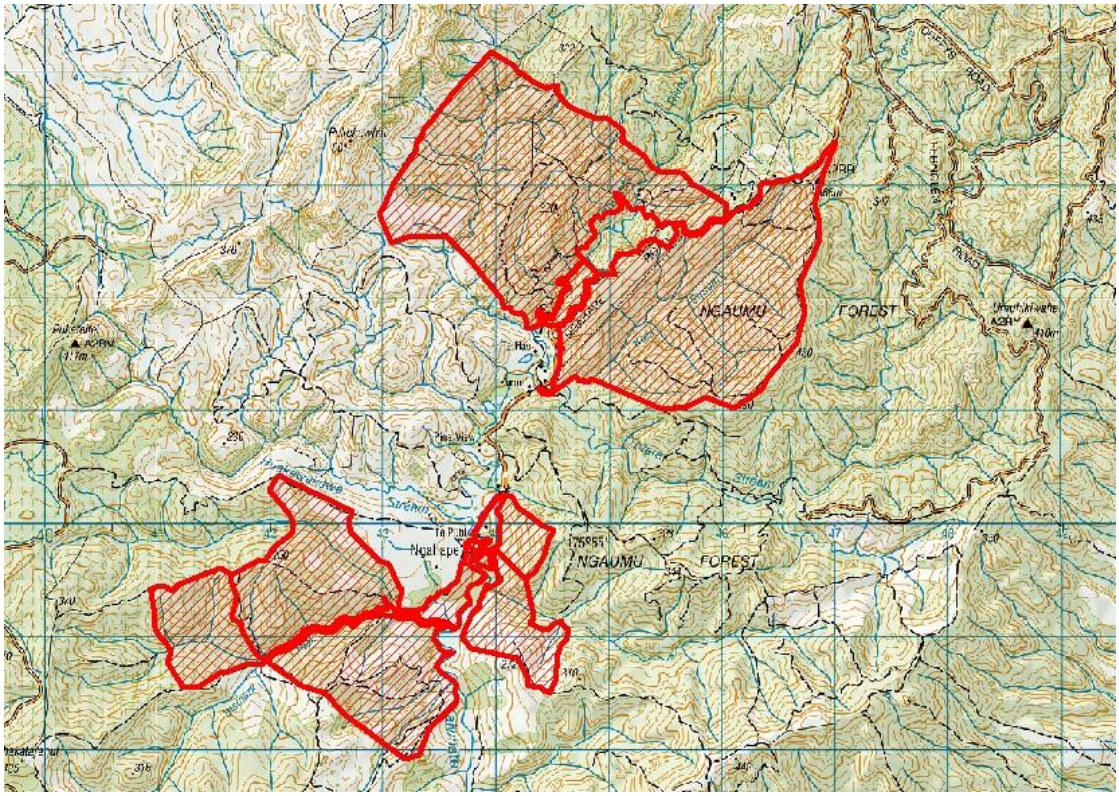
4.3.1 PROPERTY USE

36 The Forestry Units are utilised for the growing of exotic commercial tree crop. This is considered the highest and best use for the land.

4.3.2 LAND DESCRIPTION

37 The image below outlines the general shape and contour of the subject Forestry Units.

Topographic Map



38 The main access to the Forestry Units is directly off Ngahape Road.

39 RF has road frontage to Ngahape Road of some 3.7 kilometres. The main access to RF is at the northern extent, along with additional access points further along Ngahape Road providing access to the south western extent. RF has a number of water systems including the Kopi Stream running through the centre of the block. There is a power line corridor to the western extent. RF has a predominant east and west aspect, being of steeper land with a small area of easier land to the western extent adjoining Ngahape Road.

40 TH has road frontage to Ngahape Road for some 1.7 kilometres. Access is through a RoW at the initial part of the forest, which leads over the Kaiwhata River and runs through the property at the eastern extent. There are a number of smaller waterways within TH. The Forestry Unit has a balanced aspect with some easier contoured land to the western extent.

41 TP is situated at the end of Ngahape Road, and has a number of water systems including Bismark Creek and Kaiwhata River running through the property. The land is predominantly of medium to steeper contour with some areas of easier terrace country.

42 The following table outlines the ground and hauler base mix provided by FEL, along with the average estimated minimum and maximum altitude for each Forestry Unit.

Table 6: Ground & Hauler Base Areas (ha) & Altitude (masl) by Forestry Unit

Forest Unit	GB%	HB%	Avg Alt	Min Alt	Max Alt
Ratahuia	27%	73%	250	110	380
Te Hau	50%	50%	200	110	270
Te Puhi	54%	46%	150	100	250
Johnsons	100%	0%	260	240	280
Wt Avg	**37%**	**63%**	**275**	**450**	**450**

43 Overall, TH and TP contain a favourable amount of easier ground base terrain with RH being predominantly hauler.

4.3.3 COVER SUMMARY

44 The following table outlines the established tree crop on the Forestry Units.

Table 7: Cover Summary

YOE	Ratahuia	Te Hau	Te Puhi	Johnsons	Total	Share %
1980	1.0				1.0	0%
1981	6.6				6.6	1%
1982	0.3				0.3	0%
1984			3.7		3.7	1%
1990		22.1			22.1	4%
1991		10.5			10.5	2%
1992	15.3	22.9	57.1		95.3	15%
1993	47.2	5.6	20.6		73.4	12%
1994			65.9		65.9	10%
1995			36.9		36.9	6%
1996			37.9		37.9	6%
2011	4.6				4.6	1%
2013	51.5				51.5	8%
2015	1.8			2.5	4.2	1%
2018		21.6			21.6	3%
2019	12.0	73.3			85.3	14%
2020	34.3	49.6	24.1		108.0	17%
Total	**174.5**	**205.6**	**246.4**		**628.9**	**100%**
Share %	28%	33%	39%		100%	

4.3.4 PPA

45 The following table is a summary of the PPA adopted, which is the area of land utilised to run the forestry business. This includes the NSA of planted trees, areas waiting replanting, utilities, roads and landings. Areas outside the legal boundary along with inaccessible stocked areas are deducted. The un-plantable land comprises areas such as power lines, covenant areas, indigenous vegetation, areas not physically able to be harvested and other non-plantable areas.

Table 8: PPA (ha)

Land Type	Ratahuia	Te Hau	Te Puhi	Johnsons	Total
NSA Productive	174.5	205.6	246.4	2.5	628.9
AWR	55.7	82.0	46.9		184.5
Roads/Skids	7.7	30.1	10.6		48.3
Less OLB					0.0
Inaccessible					0.0
PPA	**237.9**	**317.6**	**303.8**	**2.5**	**861.7**
Unproductive	64.2	28.7	98.3	0.2	191.3
Legal Area	302.0	346.3	402.2	2.7	1,053.1

46 The NSA has been based off stand shape files provided. We have included the NRML patch type along with patch classes -1, 1 and 2. We have also included patch type 3 containing road and track.

4.3.5 ETS STATUS

47 The Title registrations outline the Forestry Units have a mix of post-1989 and pre-1990 land within the ETS. We have been provided with the registered post-1989 ETS shape files outlining the registered areas within each Forestry Unit.

48 We have been advised there is, or previously has been some 548 hectares of registered post-1989 land contained within a CAA.

49 The following table outlines the amount of historic registered area within a CAA by Forestry Unit.

Table 9: CAA Areas

Forest Unit	Ha	Share
Ratahuia	143	26%
Te Hau	196.2	36%
Te Puhi	208.7	38%
Total	**547.9**	**100%**

50 The registered CAA areas can include areas of non-stocked post-1989 land. This is due to the ETS mapping tolerances allowing for gaps up to 1ha in size.

51 We have referenced the LUCAS Dataset as to its land cover in 2016 based on its land use classifications as at 1990.

Table 10: LUCAS Dataset Classification

LUCNA_2016	Te Puhi	Ratahuia	Te Hua	Johnsons	Total	Share %
Grassland - High producing	0.5		0.6		1.0	0%
Grassland - Low producing	1.2	0.0	0.5		1.8	0%
Grassland - With woody biomass	0.0	0.1	0.5		0.6	0%
Natural Forest	7.5				7.5	1%
Planted Forest - Pre 1990	33.6	102.0	0.9	2.5	139.1	16%
Post 1989 Forest	261.0	135.7	315.1		711.7	83%
Wetland - Open water			0.0		0.0	0%
Total (ha)	**303.8**	**237.9**	**317.6**	**2.5**	**861.7**	**100%**

52 For the purposes of this assessment, we have adopted the following ETS area breakdown.

Table 11: ETS Eligible Areas (ha)

ETS Split	Ratahuia	Te Hau	Te Puhi	Johnsons	Total
Post 1989 Registered	143.0	196.2	208.7		547.9
Post 1989 Productive	143.0	196.2	208.7		547.9
Pre 1990 Productive	94.8	121.4	95.1	2.5	313.8
Post 1989 Registered Unstocked	0.0	0.0	0.0	0.0	0.0
Total	**237.9**	**317.6**	**303.8**	**2.5**	**861.7**

4.3.6 SOILS

53 Soils within the NSA have been classified in accordance with the General Survey of the Soils of the North Island

(Soil Survey Bulletin (n.s.5) prepared by the Department of Scientific and Industrial Research Bulletin.

Table 12: Soils

Soil	Ratahuia	Te Hau	Te Puhi	Johnsons	Total	Share %
2		0.6	0.5		1.1	0
120	191.4	0.6	27.2		219.2	25
120a			0.1		0.1	0
28H			30.5		30.5	4
28cH	46.5	135.5	245.5	2.5	429.9	50
35cH		180.9			180.9	21
Total (ha)	**237.9**	**317.6**	**303.8**	**2.5**	**861.7**	**100**

54 **Kairanga silt loam on clay loam (No.2)**

This soil type has a parent material of alluvium. It generally occurs on flat contoured country. A typical soil profile comprises 7.5cm grey loam on white rust flecked loam or 15cm grey to dark brown heavy silt loam on pale greyish mottled clay loam. The soil has a high to very high natural fertility and has slight to fair response to phosphates and nil to good response to lime.

55 **Mataikona silt loam (No.120)**

This soil occurs on steep-very steep contoured hill country. A typical profile comprises 5-10cm of light yellowish-grey silt loam on a weathered argillite parent material. In many places the soil is stony. This soil has a low natural fertility and provides a fair response to phosphate fertilisers.

56 **Opouawe stony silt loam (No. 120a)**

This soil has a parent material of argillite and mudstone situated on steep to very steep topography. A typical profile comprises 2.5-10cm of dark grey stony silt loam on 5-15cm of light yellow stony loam on argillite. This soil has a low natural fertility.

57 **Tinui silt loam and Waikura sandy loam (No.28H)**

This soil occurs on rolling and medium contoured hill country. A typical profile comprises 15cm of grayish-brown silt loam, then 30-45cm of yellow clay or stony clay on a argillite parent material. Also some profiles contain 12.5cm of dark brown sandy loam on dark yellow stony silt loam. This soil has medium-low natural fertility and provides a fair response to phosphate fertilisers and lime.

58 **Pakarae sandy loam hill soil (No.29cH)**

This soil type is formed from ash from the Gisborne or Taupō ash showers overlying the original mudstone based soils. The soil type occurs on moderately-steep/steep slopes. A typical profile comprises up to 10-12cm of a dark-brown sandy loam overlying some 10cm of a yellow heavy sandy loam on pale yellow clay loam subsoil. Can be subject to slips which heal readily.

59 **Maungapakeha silt loam hill phase (35cH)**

This soil has a texture of silty loam with potential rooting depth of 70-86cm with a barrier or massive rock. Topsoil ranges from 23-28% and is well drained. Depth to hard rock and stony layer class is moderately deep with no soft rock within one meter. Topsoil P retention is medium (43%).

4.3.7 WEEDS & PESTS

60 In the first rotation forest, normal forest weeds are relatively minimal. For the cutover and second rotation forestland, normal weeds that are present required desiccate spray prior to planting, along with release spraying to newly established crops.

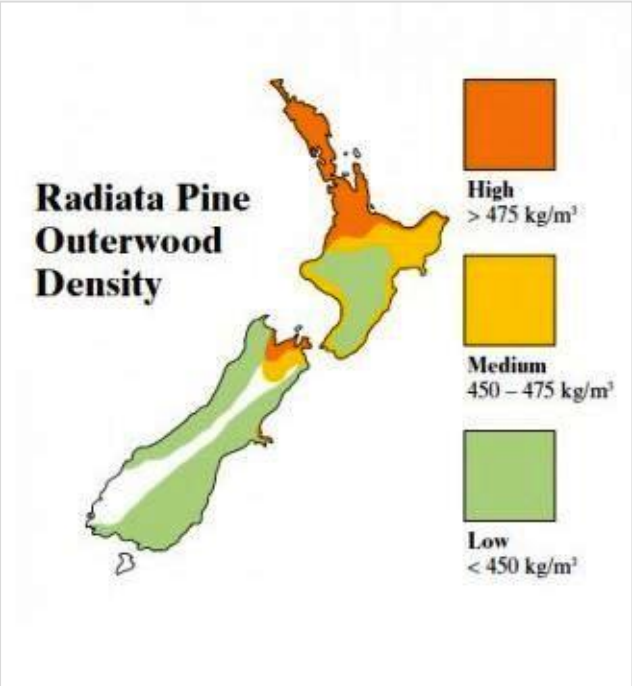
61 The main pests are feral goats which require control at the time of establishment. This is generally undertaken by the landowner in conjunction with the Regional Council.

4.3.8 WOOD DENSITY

62 Wood density is related to the mean annual temperature of a specific site and therefore determines its suitability as structural lumber which has conditions regarding strength and stiffness.

63 The following map outlines the radiata pine density zones for New Zealand.

Radiata pine density zones



64 Based on the density zone map, the Forestry Units would fall in the "medium" bracket 450-475kg/m³.

4.3.9 PRODUCTIVITY

65 Forest site productivity is production that can be realised at a certain site with a given genotype and a specified management regime. Site productivity depends on both natural factors inherent to the site and on management related factors. Forest productivity influences the return on investment offered by growing the tree crop as well as determining the optimum time for a tree crop to be harvested.

66 Within New Zealand there are generally three measures to determine forest productivity.

67 Site Index is a measure of productivity of a site in terms of height growth of radiata pine. The parameter used is a mean height in metres of the largest 100 trees per hectare at age 20 years.

68 300 Index is a measure of volume and productivity for radiata pine. It is similar to the mean annual increment. The 300 Index is defined as "a mean annual volume increment (m³/ha/yr) of a stand that is pruned to 6m, thinned at the completion of pruning and grown to final crop stocking of 300sph to age 30 years".

69 Mean Annual Increment (MAI) - is the total stem volume divided by its present age.

70 The following table outlines the estimated Site and 300 Index based on information provided by FEL. This has been compared with PSP data from ex-farm sites within the Wellington region, along with the New Zealand average (source Pinus Radiata Calculator Pro Ver4). The estimated TRV is a broad measure based on a rotation age of 27 years multiplied by the 300 Index and a recovery of 85%.

Table 13: Site & 300 Indices

Index	Ratahuia	Te Hau	Te Puhi	Johnsons	Wellington	New Zealand
Site m/yr	28.8-31.1	28.8-31.1	31.1-33.5	28.8-31.1	32.6	30.2
300 m3/yr	30.6-33.8	30.7-34.5	29.6-34.9	30.6-33.58	33.2	29.0
TRV Est	739	748	740	739	762	666

71 We are of the view the Forestry Units would have productivity similar to the Wellington/Wairarapa region, and above that of the New Zealand average.

4.3.10 FIRE RISK

72 The Forestry Units are considered to have a low to moderate fire risk predominantly due to having a relatively well distributed rainfall and being bounded by farmland and other exotic forestry.

4.4 IMPROVEMENTS

4.4.1 FENCING

73 We have included the added value of fences where they adjoin farmland. Internal fencing is considered to be of no added value.

4.4.2 HARVEST INFRASTRUCTURE

74 This assessment is on the basis that harvest infrastructure in the form of roads, skids and hauler pads have been established.

Section 5: LAND VALUATION OVERVIEW & VALUATION

5.1 FORESTRY SALES EVIDENCE

5.1.1 PREAMBLE

75 Appendix 2 "Forestry Sales Evidence" contains a schedule of recent forestry transactions. They have been segregated to include the following:

- ETS status – pre-1990 or post-1989 as different land rights occur under the ETS
- Use – whether bare land (farmland acquired for planting), land and trees, forestry right, cutover or ETS offsetting
- $GBe – analysed ground base equivalent value per hectare
- $HBe – analysed hauler base equivalent value per hectare

76 $GBe and $HBe values have been analysed for each transaction based off the expected quantum of land for each harvest method, primarily based off contour. $HBe has been assessed at 70-80% of $GBe acknowledging higher harvest costs for this land type, along with increasing environmental risk and constraints with the NES-PF.

77 When comparing land transactions it is imperative to determine its classification under the ETS (pre-1990 or post-1989) and what influence the ETS has had on these sales.

78 Pre-1990 land use is more aligned to traditional forestry returns associated with the establishment, growing and harvest of a tree crop. There is no ETS influence apart from deforestation penalties on change of land use.

79 Post-1989 land has the ability to realise additional cashflows over and above traditional forestry by earning NZUs from carbon sequestration. The benefit from carbon is dependent on the age of the tree crop, carbon profile of the ETS participant along with the market price of NZUs.

80 The carbon benefit has historically been from the "carbon stock change approach" whereby account has to be taken for carbon liabilities through harvest or loss (wind and fire).

81 From 2019 new forests being registered in the ETS have the ability to utilise the "carbon averaging approach" whereby in the first rotation, the long term average of carbon sequestration can be realised. Currently this is estimated at around 600 NZUs per hectare by age 17. No more carbon can be earned beyond this period and there is no associated liability with harvesting, fire or windthrow as long as the land is replanted.

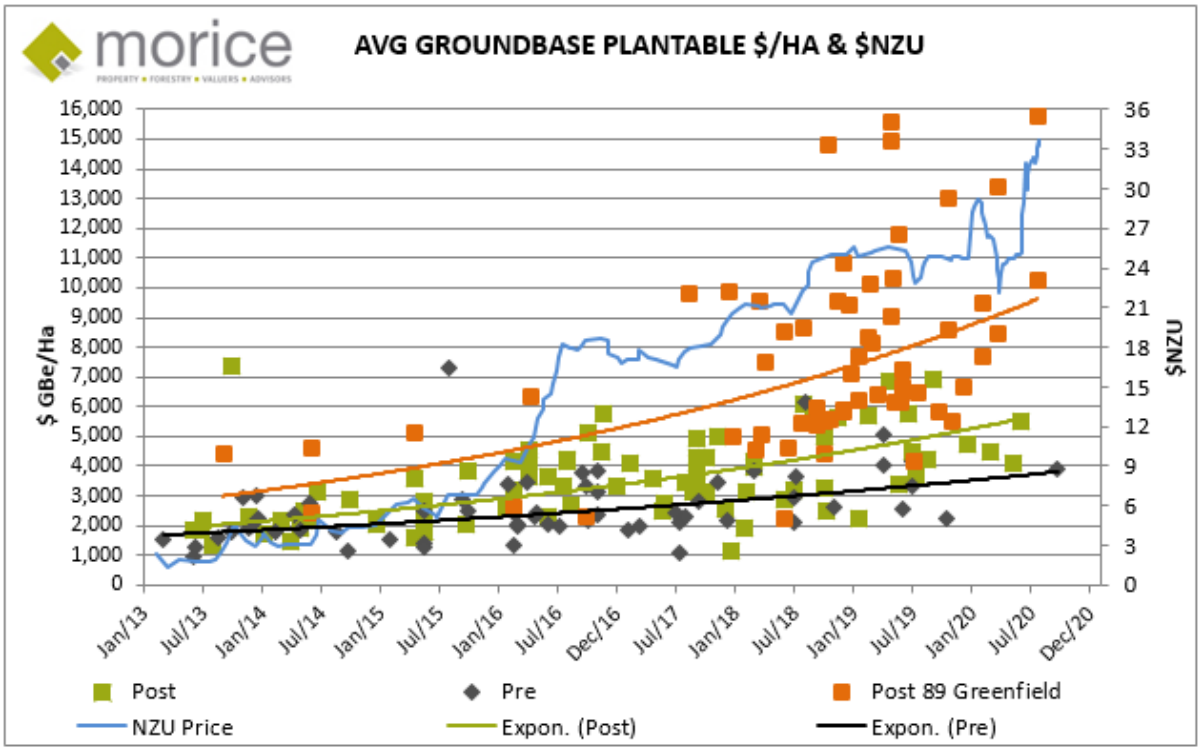
82 Under the averaging approach to earn NZUs past the long run average mark a "permanent forest" will be required with a 50 year covenant in which no harvesting can take place during this time. Harvest after this date will require surrender of NZUs back to the long run average amount.

83 The market applies different land value based on the ETS status of the land. On this basis we attempt to apply "like-with-like" land value benchmarks when comparing to the subject properties.

84 **Forestry Evidence**
We endeavour to analyse as many New Zealand forestry land transactions as possible where sufficient information is available.

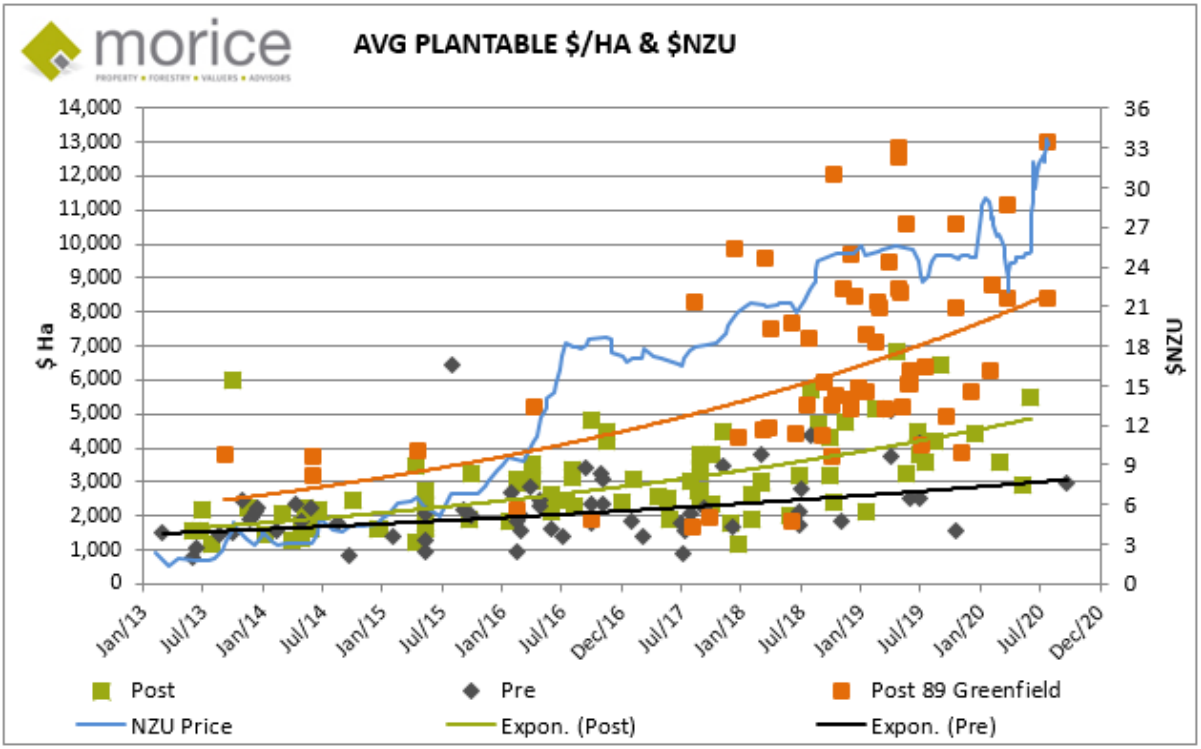
85 The following graph is a summary of our analysed $GBe per hectare of pre-1990, post-1989 and post-1989 Greenfield land since 2013. We also overlay the historic NZU price which has an influence on post-1989 land values.

$GBe Forestry Land Values



86 We provide a further graph on an average plantable value per hectare as per below:

Average Plantable Value $/ha



87 **Market Summary**

In general the forest market is lifting with there being significant acquisitions from offshore interests. Larger corporates are increasing their land holdings due to forestry currently being seen as a relatively sound investment when compared to other asset classes.

88 The sales analysis outlines the importance of determining the ETS status of the land. Pre-1990 land is largely influenced by the economics of growing a tree crop and is mostly shaped by key variables such as recoverable volume, harvest and cartage costs.

89 Under the current "carbon stock" change approach, carbon sequestration benefit is influenced by the age of the tree crop at the commencement of the ETS which impacts on the level of "risk free" carbon.

90 Greenfields Post-1989 land suited to the proposed averaging approach has resulted in significant increase in land values due to the higher amount of "risk free" carbon available in the first rotation.

5.2 VALUATION CONSIDERATIONS

5.2.1 POST-1989 SALES

91 We provide the following sales evidence based on a post-1989 status.

Table 14: Summary of Post-1989 Comparable Sales

Sale#	Date	Locality	PPHA	$Gbe	$Hbe	Description	Comparison to Subject	Comparison Notes
1	01/19	Wairau Valley	2,031	2,254	1,578	Originally marketed July 2017. Original purchaser unable to meet OIO conditions. Reoffered to under bidder. Contains some 1,932ha primarily Pinus radiata established 1993-2001.	Inferior.	An older sale, less desirable area, less productivity.
3	02/21	Masterton	237	3,560	2,492	Contains 240ha planted 1992-2020. 109ha of second rotation, predominantly ground base. Located 163km from CentrePort in Wellington and 72km north of Kiwi Lumber.	Inferior.	Less desirable locality, some difficult harvest areas. Similar lead.
5	03/20	Mangamahu	221	3,850	2,695	Isolated block difficult to harvest, 221 ha P.rad mostly 96 pruned , all hauler , 223 km to export , purchased for carbon	Inferior.	More remotely located, areas of difficult harvest.
6	05/20	Ngamatapouri	138	4,124	2,887	Est pruned tree crop 92.1 ha 1993, 40.8ha 1994, 2.3 ha 1996, 5.1 ha 1995 Lusitanica, 3.6 ha 1996 Eucalyptus, steep land , remote location	Inferior.	More remotely located, areas of difficult harvest.
8	03/20	Gisborne	230	4,486	3,140	Comprises a number of syndicated blocks containing near mature tree crop. Third ground base, located 75km north of Eastland Port in Gisborne.	Inferior.	Superior on account of lead distance to export. Inferior locality, less domestic option, older sale.
10	07/19	Benneydale	247	4,502	3,151	Situated 5 kilometres west of Benneydale. Contains 242ha of P.rad planted 1993-2009. 50 established ground base , 53.5%, post 89 %post 89 $Gbe $5,000/ha , Pre 90 $3,300/ha	Superior.	Similar locality to export and domestic markets, however CNI premium.

Sale#	Date	Locality	PPHA	$Gbe	$Hbe	Description	Comparison to Subject	Comparison Notes
11	12/19	Wairoa	286	4,755	3,328	Forest land acquired by a neighbouring farmer to convert to grass. Three quarters ground base. Located 107km north of Port of Napier and 90km north of Pan Pac Forest Products.	Similar.	Slightly less lead distance to export, more for domestic.
13	06/20	Taupō	270	5,500	3,850	Mature forest at Western Bays, Taupō. 270 hectares of pruned Pinus radiata established 1994. All ground base. Located 60km south of Kinleith. Good forest.	Superior.	Good forest tracks, high CNI demand.
16	12/20	Hastings District	162	5,855	4,099	Contains 162ha Pinus radiata established 1995, 70% ground base. A good forest deregistered from the ETS.	Superior.	Located just north of PPFP Forest. Desirable area.

5.2.2 PRE-1990 SALES

92 The following table outlines the most comparable 1990 sales relied upon.

Table 15: Summary of Pre-1990 Comparable Sales

Sale#	Date	Locality	PPHA	$Gbe	$Hbe	Description	Comparison to Subject	Comparison Notes
19	10/19	Takaka	128	2,207	1,545	Pre-1990 forest containing some 128ha of radiata established 2003-2008. Predominantly hauler base contour, situated 90km west of Nelson Port.	Inferior.	An older sale located in a less productive and desirable area.
20	06/19	Kaitaia	425	2,581	1,807	Otangaroa forest , mainly GB , 1986 - 2011 plantings, 2nd rotation crop, 39 km Kaitaia 156 km Marsden Point	Inferior	Although a similar lead distance is an older sale.
23	07/19	Gisborne	24,823	3,338	2,337	Land component of ex Hikurangi, containing 10 Forestry Units. 13% above 600masl. 72% pre-1990 land. Weighted average lead distance 69km to Eastland Port, Gisborne. 18% ground base. $GBe post-1989 land $4,500-$4,800/ha. Pre-1990 $GBe $2,600-$3,400.	Inferior.	Contains a wide range of land type. Balance is similar, however less domestic processing options. Older sale.
25	03/18	Mangakino	933	3,817	2,672	A high sale of very desirable forestry land situated between Kinleith and Mangakino. Acquired by a large saw milling company looking to secure supply. Sale at the upper end of pre-1990 evidence.	Superior.	An older sale, track size, CNI demand, close proximity to Kinleith.
26	09/20	Ngāruawāhia	778	3,885	2,719	Value established as subject to OIO - contains 2nd rotation tree crop 1975-2010, 20% GB , fully roaded , export 140km, sawlog 34 km , good forest	Superior.	Track size, CNI demand. Close domestic processing, similar lead distance to export.

Sale#	Date	Locality	PPHA	$Gbe	$Hbe	Description	Comparison to Subject	Comparison Notes
27	04/19	Kinleith	139	4,001	2,801	Sale comprising the land of a 140 hectare forestry block situated within an existing forest in the Kinleith area. Favourably located to pulp (21km) and saw log (69km), with export at Tauranga some 109km distant. Land is 100% Pre-1990, with roads in place.	Superior.	An older sale, track size, CNI demand, close proximity to Kinleith.
28	07/19	Kinleith	983	4,161	2,913	Sale comprising the land of a 987 hectare forestry block situated within an existing forest in the Kinleith area. Favourably located to pulp (21km) and saw log (69km), with export at Tauranga some 109km distant. Land is 94% Pre-1990, with roads in place.	Superior.	An older sale, track size, CNI demand, close proximity to Kinleith.
29	04/19	Rotorua	390	5,082	3,557	Contains 90 ha post-89 land (full carbon rights) Pre 90 assessed at $5000/ha , 300 ha pre land and 668 ha bush. Located close to Mt Maunganui and 54km to Port Tauranga.	Superior.	Mixed use property. Difficult to analyse based on small pre-1990 component. Close proximity to Tauranga. Superior location

5.2.3 SWOT ANALYSIS

93 **Strengths & Opportunities**

- proven forestry area
- predominately post-1989 eligible land
- historic strong log prices
- current strong carbon market

94 **Weaknesses & Threats**

- long lead distance to export
- increasing unavailability of establishment, tending and harvest contractors
- fluctuating export log prices

5.2.4 LAND VALUE BENCHMARKS

95 After taking into account the above sales evidence along with ETS classification and terrain, we have adopted the following land value benchmarks for RF.

Table 16: Land Values Adopted $/ha

Type	Ratahuia	Te Hau	Te Puhi	Johnsons
Post 1989 GBe	4,600	4,750	4,750	4,750
Post 1989 HBe	3,220	3,325	3,325	3,325
Pre 1990 GBe	3,000	3,150	3,150	3,150

Type	Ratahuia	Te Hau	Te Puhi	Johnsons
Pre 1990 HBe	2,100	2,205	2,205	2,205
Unproductive	100	100	100	0

96 We have adopted post-1989 values within the range outlined. In general we are of the opinion the forest units are superior to the recent sale in Masterton (Sale 3) along with sales 5 and 6, and are inferior to the more recently Sale 16 in the Hastings District.

97 The forestry units on a pre-90 basis are inferior to those achieved in the CNI (25-29) and are more akin to the Sale 23 in Gisborne. It is an older sale, however, benefits with less lead to Eastland Port.

98 Non-productive land values have been assessed at $100/ha in line with the comparable sales.

5.2.5 CARBON VALUATION

99 We have not separately assessed the value of the carbon trading opportunity of the Forest. We are of the view that the land values adopted incorporate the market premium for carbon trading.

100 The assessment is on the basis there is no contingent ETS liability with surrendering Units to the Crown upon harvest.

5.2.6 VALUE OF IMPROVEMENTS

101 Our valuation is on the basis that the harvest infrastructure in the form of roads and skids are in place. We have adopted a value of $300 per ppha in line with the analysed sales.

102 The added value of the roads has been based off the analysis of second rotation forestry land sold with a roading network in place. In reality the market discounts the value of the roads when compared to the capital cost to construct due to the maintenance required during the following rotation and upgrade required at time of harvest.

103 The added value of boundary fencing has been included at $5 per metre where they adjoin farmland.

5.2.7 VALUATION

104 Under the set of assumptions outlined in this report through adopting the market approach, we assess the land and improvements as at 15 February 2021:

Table 17: Summary of Land and Improvement Values

Pre 1990 Valuation Summary	Total	Ratahuia	Te Hau	Te Puhi	Johnsons
Improvement Value	280,000	71,000	104,000	104,000	1,000
Land Value	2,259,000	564,000	852,000	835,000	8,000
Total Land & Improvements Value	**2,539,000**	**635,000**	**956,000**	**939,000**	**9,000**

TWO MILLION FIVE HUNDRED & THIRTY NINE THOUSAND DOLLARS ($2,539,000) plus GST, if any.

5.2.8 ETS & COLLECTIVE OWNERSHIP SHARE DISCUSSION

105 Currently a main driver of forestry land value is the ETS where post-1989 land is demanding a premium due to NZU's able to be earned through carbon sequestration.

106 The forestry units (with the exception of Johnsons) are subject to carbon lease expiring in 2029 for RF and THF

and 2032 for TPF. Consequently there is considerable time until carbon benefit can be realised for the landowner. Additionally with changing legislation in relation to the carbon accounting method going forward, there may be minimal benefit in registering the forest in the ETS as second rotation under the averaging approach.

107 Consequently we have assessed a land value on a pre-1990 basis.

108 As a sensitivity, the following table outlines the effective ownership share based on post-1989 and pre-1990 land values.

Table 18: Ownership Share by Valuation Methodology

Forestry Unit	Post-1989	Pre-1990	Difference
Ratahuia	24.8%	25.0%	-0.2%
Te Hau	37.4%	37.7%	-0.3%
Te Puhi	37.5%	37.0%	0.5%
Johnsons	0.3%	0.4%	-0.1%
Total	**100%**	**100%**	**0%**

109 There is minimal difference between the Collective Ownership Share apportionments based on the two valuation methodologies. We are of the view the pre-1990 value should be adopted given the forestry carbon lease encumbrance in place.

Section 6: TREE CROP VALUATION

6.1 TREE CROP VALUATION METHODOLOGY

6.1.1 INTRODUCTION

110 The valuation of mature forestry stands is a relatively straightforward exercise where log grades by volume are multiplied by net log values applicable at that time to provide realisable value.

111 The valuation of immature stands is a more complex issue. If valued on an immediate liquidation approach, this does not have regard to the potential increase in value as the forest matures.

112 In general terms, actual market sales are the best measure of value however, comparatively there is little evidence in the marketplace.

113 Also if comparable data is available, this approach has inherent difficulties as generally no two forests are alike after factors such as locality, regime, terrain, growth rates, tending history and age are taken into consideration.

114 On the basis of the above, valuation models have been derived on the application of a discounted cashflow methodology, whereby net log revenue is assessed together with annual and periodic costs involved through to clearfell, with this cashflow then discounted back to the date of valuation. This is commonly known as the "expectation value" approach.

115 While the expectation value approach is appropriate for most stand ages, it can lead to inconsistent results for stands of a young age. This is due to the discounting technique which may result in a hypothetical tree crop at Age 0 having a negative value or a significant positive value well beyond the reasonable cost of establishment.

116 On this basis a hybrid compounding/discounting approach has been devised which involves compounding costs associated with a tree crop in the early part of the rotation and then discounting the future net cashflows for the remainder of the cycle.

117 For example, the cost compound approach would be applied from years 0-3 and sole reliance on the discounting approach from year 8 until harvest. During the intervening ages a harmonisation is adopted where, say at age 4, the value adopted is from 80% of the compound figure and 20% of the discount figure. At age 7 the corresponding percentages are 20% and 80%, and so on.

6.1.2 FOREST VALUE APPROACH

118 RF has been assessed on a stand based approach for each stand age class. If required, an estate based valuation can be adopted to optimise wood flow based on harvest constraints.

119 We have adopted the following age brackets for the valuation methodology.

Table 19: Valuation Methodologies by Species/Age

Species	Compound	Hybrid	Expectation
Radiata	0-3	4-7	8+

6.1.3 COMPOUND RATE

120 When considering a seller's perception of the value of immature stands it is likely to be driven off what has been spent on the forest and it is also likely to shape the sellers "reserve price". There may be more latitude for compensation of overhead costs, the cost of the land component (rental) and time cost of money. Buyers are likely to be influenced on what it would cost them to develop a replacement crop rather than what it cost the seller to develop the crop being valued.

121 A generally observed feature of the cost compound approach is the application of a comparatively low rate of compounding. This is generally reflected in the concern that the reliance of compounding can lead to high cost forests being valued more highly than it should. Also forests that are expensive to establish might not ultimately be the most productive.

122 The small amount of transaction evidence on young forests indicates that, in some cases, the sellers are satisfied with getting their development costs "replacement cost" back. Further, they are willing to recover only the direct costs incurred, i.e. with no compounding.

123 A further feature is that the market is only prepared to pay for "average efficient costs" and not "book value costs". Examples of this may be where poor establishment has required extra blanking, or additional costs incurred at the pre-plant stage to put the land into a plantable state. Also, the market will determine the merits of pruning costs and whether they perceive this as a benefit and acknowledge no, partial or full costs. Further consideration will be given to the species planted and expected stumpage return.

124 We have adopted a compound rate of 3% per annum which is higher than the average CPI over the previous 10 years and less than the current cost of finance.

6.1.4 DISCOUNT RATE

125 The value of a forest is sensitive to the discount rate used. The "discount rate" is the interest rate per annum to the investor if he or she buys in at the valuation which is derived by discounting the future cashflow at the discount rate. The choice of a discount rate is critical to the actual value arrived at. The higher the discount rate the lower the value of the forest and conversely the lower the discount rate the higher the value. Also, the longer the period until the forest is harvested the greater the impact of the discount rate.

126 There are three avenues that can be investigated in determining discount rates, i.e.

- Transaction evidence
- Survey information
- Declared discount rates

127 **Transaction Evidence**

An analysis of several sales of woodlots has been carried out in this office. A summary of the findings follows.

Table 20: Summary of IRD's

Sale Date	Location	Area/Ha	Age/Years	Implied Pre-tax Discount Rate %	Implied Post-tax Discount Rate %
Feb 2016	Northland	75.0	27		6.5
Apr 2016	Gisborne	328.0	4.6		6.5
Apr 2016	Tararua	266.0	3.6		6.5
Apr 2016	Taranaki	79.0	3.6		6.5
Apr 2016	Otago	78.0	6-31		6.0

Sale Date	Location	Area/Ha	Age/Years	Implied Pre-tax Discount Rate %	Implied Post-tax Discount Rate %
Apr 2016	Otago	156.0	4-6		6.25
Apr 2016	Southland	115.0	5-23		7.0
May 2016	Wairarapa	1,193.0	13-18		6.5
July 2016	Waikato	94.0	3-12		7.0
Aug 2016	Hawke's Bay	78.0	20-21		7.0
Sep 2016	Marlborough	116.0	0-2		6.5
Oct 2016	Wellington	177.0	1-4		6.5
Apr 2017	Northland	85.0	20-22		7.0
Nov 2017	Waikato	215.0	6-25		5.6
Feb 2018	Northland	245.0	23-24		6.5
Sep 2018	Bay of Plenty	1,442.0	7-10	5.7	
Aug 2018	Northland	247.0	16-27	8.0	
Aug 2018	Northland	240.0	24-25	7.5	
Aug 2018	Te Kuiti	87.0	25	5.25	
Aug 2018	Gisborne	389.0	10	7.8	
Aug 2018	Gisborne	163	16	7.5	
Aug 2018	Gisborne	197	22-25	6.8	
Aug 2018	Wairoa	291	13-23	7.5	
Aug 2018	Canterbury	847	23-26	6.75	
July 2019	Northland	405	8-33	6.4	
Sep 2019	Southland	712	15-27	7.5	
Sep 2019	Southland	596	17-20	7.5	
Oct 2019	Nelson	125.3	6.3-16.3	8.0	
May 2020	Whanganui	143.9	24-27	7.75	
June 2020	Taupō	269.7	26	5.5	
June 2020	Otaki	223.0	3-35	7.5	
December 2020	Napier	162.0	25	7.0	

128 Mr Bruce Manley, convenor of the NZIF Forest Valuation Working Party, undertakes biannual surveys from forestry Valuers on discount rates.

129 The following table is the analysed implied discount rates (IDR) provided from twelve forestry Valuers relating to nineteen transactions in New Zealand. Forests are described by location and size class (small, less than 1,000 hectares; medium 1,000-10,000 hectares; large greater than 10,000 hectares).

Table 21: Sales 2018-2019

Forest	Size	Location	Number of respondents	IDR applied to post-tax cashflows		IDR applied to pre-tax cashflows	
				Current rotation	Multiple rotations	Current rotation	Multiple rotations
1	Small	Northland	1			6.5	
2	Small	CNI	1	3.5		4.8	

Forest	Size	Location	Number of respondents	IDR applied to post-tax cashflows		IDR applied to pre-tax cashflows	
				Current rotation	Multiple rotations	Current rotation	Multiple rotations
3	Small	CNI	2	6.9		9.1	7.0
4	Small	CNI	1	6.7		8.3	
5	Small	East Coast	1	8.2		9.4	
6	Small	Hawke's Bay	1				7.5
7	Small	Hawke's Bay	1			5.0	
8	Small	Hawke's Bay	1			7.5	
9	Small	Wairarapa	1			7.7	
10	Small	Wairarapa	1				7.1
11	Small	Wairarapa	1				7.5
12	Small	SNI	2	4.5		6.1	7.7
13	Small	SNI	1				7.5
14	Small	SNI	1	5.5		7.5	
15	Small	SNI	1	8.3		11.0	
16	Small	Marlborough	1				8.0
17	Small	Marlborough	1				7.7
18	Small	Marlborough	1				7.5
19	Small	Marlborough	1	8.5		11.5	
20	Small	Marlborough	1	8.1		10.4	
21	Small	Nelson	1	5.4		7.4	
22	Small	Nelson	2	7.0		8.0	
23	Small	Canterbury	2	3.2		5.2 (3.7–6.8)	6.1
24	Small	North Island	1			7.0	7.4
25	Medium	CNI	1			6.2	
26	Medium	Wairarapa	1				7.0
27	Medium	SNI	1				6.0
28	Medium	SNI	2			5.4	6.1 (5.4–6.8)
29	Medium	Otago	4	4.0	5.0	4.5 (3.6–5.5)	5.9 (5.2–6.5)
30	Medium	Southland	2			7.5	6.5
31	Large	East Coast	4	4.9	4.6	4.1	6.6 (5.8–7.4)
32	Large	Otago	1				7.2
33	Large	NZ wide	2			8.1	7.3 (6.7–7.9)

130 The IDRs from the above transactions (2019 survey) along with 2011-2017 surveys are summarized in the following table.

Table 22: IDR Survey Summary 2011-2019 (Current rotation)

Year	Post-tax Range	Overall Avg	Medium/ Large	Small	Pre-tax Range	Overall Avg	Medium/ Large	Small
2011	4.4-8.4%	6.7%			7.8-10.6%	9.3%		
2013	5.5-10.8%	7.3%			5.1-11.5%	8.9%		
2015	3.7-11.0%	6.9%	6.4%	7.1%	4.8-13.6%	8.6%	7.8%	9.1%
2017	4-9.2%	7.0%	5.8%	7.2%	4.0-10.0%	7.6%	5.9%	8.4%
2019	3.2-8.5%	6.1%	4.5%	6.3%	4.1-11.5%	7.3%	6.3%	7.8%

131 The 2019 survey resulted in a similar pre-tax current rotation discount rate for medium to large forests with a reduction in small forests.

132 **Valuer Survey of Discount Rates Adopted**

The survey also reports from the twenty three Valuers, discount rates they use to estimate the market value of tree crops. The results from the four surveys are outlined below.

Table 23: Survey of Discount Rates Adopted (Current Rotation)

Survey	Post-tax Range	Avg	Pre-tax Range	Avg
2011	6.8-8%	7.1%	8-12%	8.7%
2013	5.5-9.5%	7.0%	7-11%	8.7%
2015	6-10%	7.0%	7-11%	8.3%
2017	6-10%	7.1%	6-10%	7.6%
2019	6-9%	7.1%	6-10%	7.9%

133 Some 20 of the 22 Valuers included in the 2019 survey also participated in the 2017 survey. The average change for the 19 Valuers was a reduction of 0.4%.

134 **Declared Discount Rates**

The Manly discount rate survey also contains declared discount rates used in financial reporting by large forestry corporates.

135 The following table outlines declared rates based on the current rotation pre-tax cashflows with the exception of City Forests which uses current rotation post-tax cashflows.

Table 24: Declared Discount Rates

Company	Reporting	2014	2015	2016	2017	2018	2019
China Forestry Group	31 Dec	8.2	8.2	8.2	8.0	7.5	7.5
Greenheart NZ	31 Dec	8.5	8.5	8.5	8.5	7.5	7.5
GTI 8 New Zealand	31 Dec	8.5	8.5	8.0	7.5	7.0	7.0
Invercargill City Forests	30 June	9.5	8.5	8.0	7.5	6.8	6.5
Kaingaroa Timberlands	30 June	7.5	7.5	7.0	6.5	6.3	6.3
Matariki Forestry Group	31 Dec	8.5	8.5	8.0	7.8	7.5	6.5
Nelson Forests	31 Dec	8.5	7.5	7.5	7.0	7.4	7.5
Oregon Group (Ernslaw One)	30 June	8.5	8.0	8.0	8.0	7.5	7.3
OTPP	31 Dec	8.0	7.8	7.8	7.5	7.4	7.1
Pan Pac Forest Products	31 March		8.0	7.5	7.3	7.0	7.0

Company	Reporting	2014	2015	2016	2017	2018	2019
SunChang Forestry NZ	31 Dec	8.7	8.7	8.6	8.6	7.6	7.6
Taumata Plantations Ltd	30 June	8.5	7.5	7.5	7.3	7.3	7.0
Te Waihou Plantations	31 Dec	8.5	8.5	8.0	8.0	7.0	7.0
Tiaki Plantations	30 June	7.5	7.3	6.8	6.5	6.5	6.5
Timbergrow Plantations	30 June	9.0	8.5	7.5	7.5	7.5	7.3
Wenita Forest Products	31 Dec	7.5	7.5	7.0	7.0	6.5	6.5
City Forests (post-tax cashflows)	30 June	7.0	7.0	6.5	6.5	6.5	6.0

136 The average reported discount rate for pre-tax cashflow has reduced from 7.5% in 2017 to 7.1% in 2018, to 7.0% in 2019.

137 **Discount Rate Adopted**

In relation to the RF we have considered the following risk factors.

Table 25: Larger Risk Factors

Risk Factor	Risk Weighting	Comment
Scale	Above average	Stands are of relatively small size, albeit part of a large Estate.
Physical	Above average	Stands reside on predominantly hauler (55%) with predominantly higher to very high NES-PF risk.
Growth & Yield	Above average	No MRI or PHI data is available. Yields based on historic records.
Log Prices	Average	With a mix of domestic and export markets.
Production Costs	Above average	Harvest infrastructure in place. High harvest costs being predominantly hauler. High cartage costs to export and pruned.

138 After taking into consideration the above, we have adopted a pre-tax discount rate of 7.75% applied to current rotation cashflows.

6.1.5 CONVERSION FACTOR

139 Yield tables have been generated on a cubic metre basis along with log prices, harvest and cartage costs.

6.1.6 LAND INPUT

140 A hypothetical annual market rental has been applied to the cashflows. At the end of the rotation the land is assumed sold in a cleared state ready for replanting. Costs for clearing logging debris and other post-harvest clean-up operations are included in the cashflow.

6.1.7 TIMING OF COSTS AND REVENUES

141 The NPV is calculated under the assumption that each year's cost and revenues are incurred at the beginning of the valuation year, here assumed as 1 July. This is consistent with the yield tables which are stated at 30 June.

6.2 TREE CROP DESCRIPTION

6.2.1 FOREST AREA

142 The tree crop assessment has been confined to 2011-2015 compartments within RF and JF.

143 Forest shape files have been provided by FEL, and have been adopted in the assessment.

144 The following table is a summary of the NSA by establishment year.

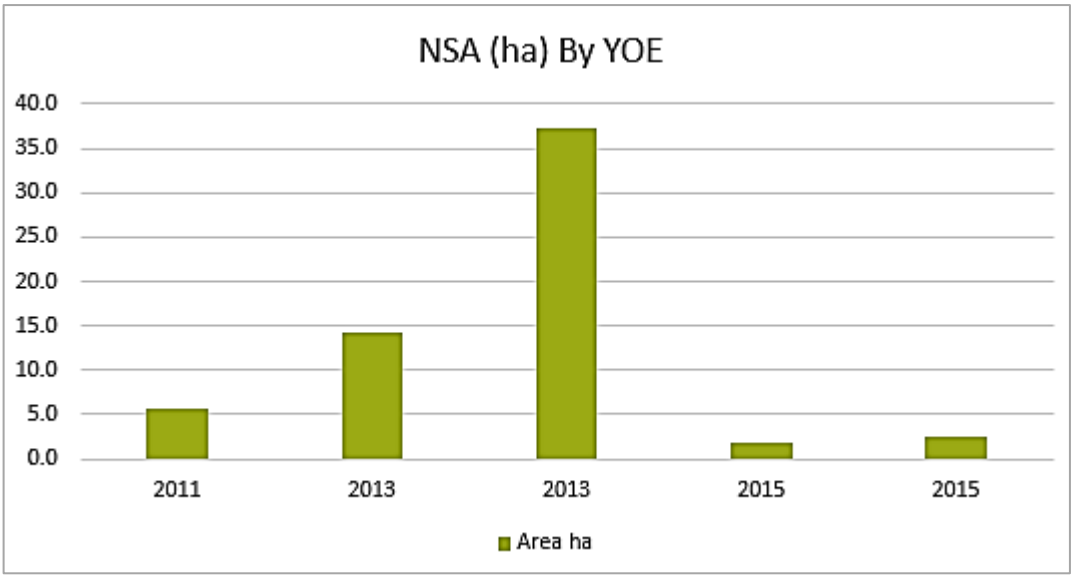
Table 26: Established Areas by Species

Compartment	YOE	Species	Area ha	Share
1101	2011	P.rad	5.6	9%
1301	2013	P.rad	14.3	23%
1302	2013	P.rad	37.3	61%
1501	2015	P.rad	1.8	3%
JOHN-1-1501	2015	P.rad	2.5	4%
Total			**61.4**	

145 In summary, there is an NSA of 61.4 hectares, with a weighted average year of establishment of approximately 2013.

146 The graph below outlines distribution of the stands by establishment year.

Net Stocked Area (ha) by Year of Establishment



6.2.2 ESTABLISHMENT/TENDING HISTORY

147 The stands have generally been established at a stocking of 1,000spha using genetically improved seedlings. We have not been provided with any planting audit reports.

148 The stands have/will be managed to a pruned regime with a first lift of 375spha to 3.5 metres in height around age five, and a second and final lift to of approximately 375spha, to 6.5 meters in height around age seven with a thin to waste to 350spha at age eight.

149 The following outlines the tending operations that have occurred to the stands:

- 2011 Planting - Received two pruning lifts (final) along with thinning
- 2013 Planting - Received two pruning lifts (final)

6.2.3 FOREST HEALTH

150 The tree crop appears to have good establishment and health with no nutrient deficiencies noted.

6.2.4 INVENTORY

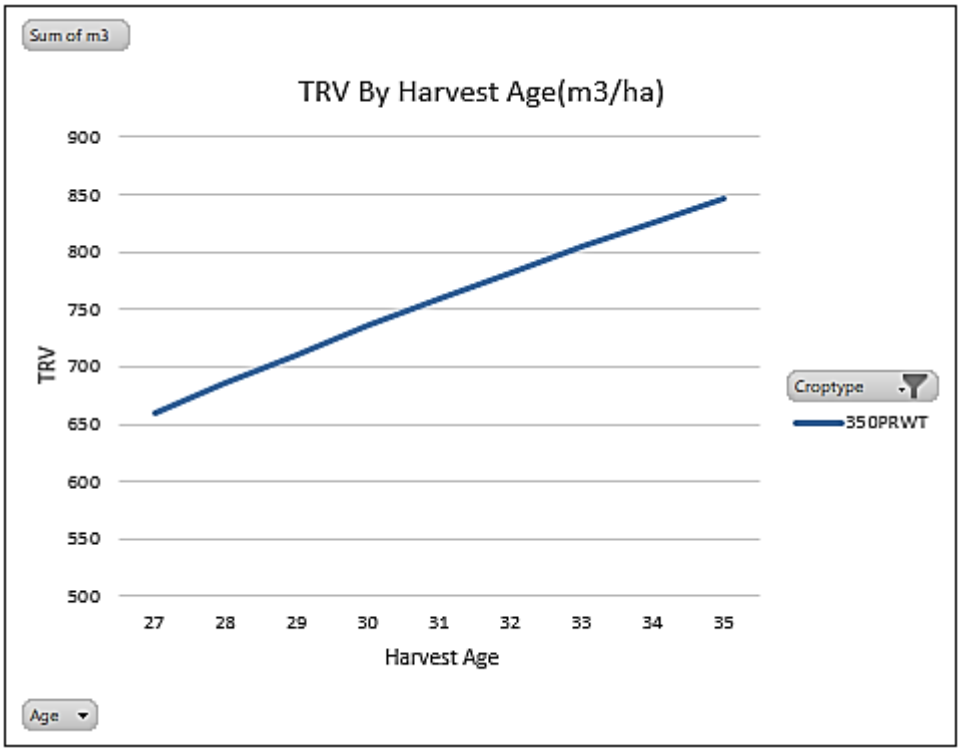
151 No inventory data has been provided for the stands.

6.2.5 YIELD PREDICTION

152 FEL have provided an indicative yield table based on a harvest age of 27-35 years, based off a reconciliation of what has been achieved from the 1992-1993 plantings that have been harvested. Yields by log grade are outlined in the following table.

153 The total TRV is outlined in the following graph.

TRV by Crop Type m³/ha



6.2.6 LOG GRADES

154 Generic log grades have been adopted as outlined below.

Table 27: Log Specifications

Grade	Description	Branch Size (cm)	Lengths (m)	Small End Diameter (cm)	Large End Diameter (cm)
Radiata					
P40	Large, pruned, high quality	N/A	3.9,5.9	40	99
P35	Large, pruned, high quality	N/A	4.4,5.0	35	99
A40	Large, unpruned, small branch, high quality	<=12	3.9,5.9	40	99
S30 & A	Medium unpruned, small branch, high quality	<=12	3.9,5.9	30	99
S20 & K	Small unpruned, small branch, high quality	<=12	3.9,5.9	20	99
KI	Large unpruned, large branch, low quality	<=25	3.9,5.9	26	99
KIS	Export pulpwood, low quality	N/A	3.0,3.9	10	99
Pulp	Domestic pulp wood, low quality	N/A	2.4,8.2		

155 Log volumes by grade are outlined in the Forestry Valuation. For the purpose of the assessment we have assumed that 33% of the S30/A, and S20/K grades will be sold domestically, with the balance sold export.

6.3 HARVEST PLAN

6.3.1 ACCESS

156 For the purposes of this assessment, it is assumed that all of the NSA is accessible and harvest will be via the existing forest roads and the public Ngahape Road.

6.3.2 HARVEST METHOD

157 We have been provided with the previous harvest setting shape files.

158 From referencing the setting shape files, it is assumed Stands 11.01, 13.01 and 13.02 will require hauler (cable) base logging with Stand 15.01 and John-15.01 able to be harvested by ground base mechanisms.

6.3.3 HEALTH & SAFETY

159 Health and Safety hazards have been identified including:

- road ways
- gorge and gullies
- streams and wetlands
- fences
- possible tomos
- weather

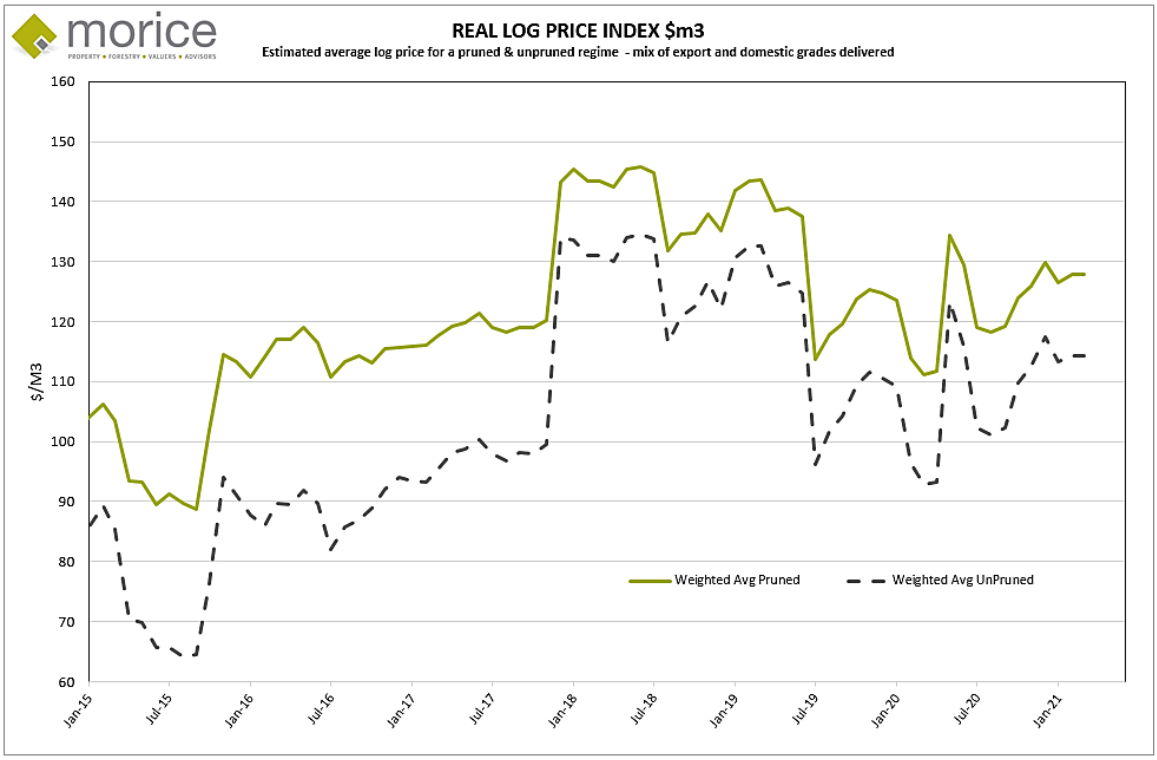
160 A Health & Safety Plan that conforms with the Health & Safety at Work Act 2015 will be required.

6.4 LOG MARKET

161 The following graph is a real (adjusted for CPI inflation) log price index survey created by Morice that estimates the average delivered log price for a Pinus radiata pruned and unpruned regime derived from actual log prices received in the marketplace.

162 Log prices are from a mix of export and domestic markets.

Historic Real Log Prices ($/m³)



163 We have undertaken a percentile analysis, which is a measure used in statistics to indicate the value below which a given percentage of observations in a group of observations falls. For example, the 20th percentile is the value (or score) below which 20% of the observations may be found. Conversely, 80% of the observations are found above the 20th percentile.

164 The percentage quartile of the previous average three month log price when compared to varying time spans is outlined in the following table:

Table 28: Log Price Percentage Quartile

Mth	Percentile
12	85%
36	51%
60	66%

165 The current three month average log prices are relatively high when compared to the previous 12 months, are around mid-levels when compared to the previous 36 months, and above the 60 month average.

166 New Zealand log exporters and forest owners have benefited from a very stable and steady log market in China for a four year period to around June 2019.

167 The current market supply and demand balance is becoming more dynamic due to several factors:

- international trade war between China and the US
- changing currencies affecting buying power
- China's Geopolitics
- COVID-19 outbreak
- fluctuating supply from other parts of the world due to changing relative cost of supply being mainly transportation from Europe, Russia, North and South America

- import of beetle infected spruce logs from Europe to China

168 The recent log market has been significantly influenced by COVID-19.

169 During the latter part of 2019 until now, there has been significant volatility in export log prices where the CFR price for "A" grade logs peaked around $143/JAS USD in March 2019 and then dropped to around CFR $100/JAS USD in March 2020.

170 There was a recovery in log prices May 2020 in response to reduced supply from COVID-19 where the CFR price reached around $127/JAS USD.

171 The March 2021 "A" grade CFR price is currently around $153USD JAS/m³.

172 Current port stock levels in China have centred around 2.9 million cubic metres, with Port offtake being relatively low at around 45,000m³ per day.

6.4.1 LOG PRICE ADOPTED

173 For the Pinus radiata, we have utilised historic log prices achieved in the Wairarapa region.

174 Log prices have been adjusted to a $/m³ basis, and adjusted in real 2021 dollar terms with historic log prices changed upward for inflation using the CPI.

175 We have adopted a return to the long run average price in determining future log prices in the model. This is based on the following methodology:

- Determine the real average previous three month log price by grade.
- Determine the real average previous 36 month log price by grade.
- Pro-rata log prices for the in between years.
- After the 36 month long run average, prices are held constant (real).

176 The following log prices have been adopted, which remain constant after 2024.

Table 29: Log Prices Adopted $/m³ $NZD

Year	P40	P35	P30	S30	A	S20	K	Ki	KIS	DomPulp
2021	180	171	169	116	150	101	127	122	109	33
2022	179	172	162	118	148	103	125	120	107	33
2023	177	172	156	119	147	104	123	118	104	33
2024	176	172	150	121	145	106	122	116	101	34
2025	176	172	150	121	145	106	122	116	101	34

6.5 COSTS

6.5.1 PREAMBLE

177 Annual costs have been included on current industry standards expressed in 2021 dollar terms exclusive of GST. For discounting purposes, costs in any given year are deemed to occur at the beginning of the valuation year that is 1 July.

6.5.2 ESTABLISHMENT & TENDING

178 We have incorporated the following establishment and tending costs.

Table 30: Establishment & Tending Costs ($/ha)

Year	Operation	$/ha
0	Establishment	1,400
0.3	Release	356
5.7	First Prune	1,400
7.5	Second Prune	1,000
8.0	Thin	800
8.0	Foliar Sample	15
25.0	Pre-Harvest Inventory	100

6.5.3 ANNUAL RENT

179 A hypothetical annual rent has been allowed for based on the tree crop earning component of the land. This has been based off comparable pre-1990 forest rentals and therefore, removes any carbon trading opportunity charged against the tree crop. Rental of $GBe $110 per hectare has been adopted with hauler areas assessed at 70% of this value.

6.5.4 ANNUAL COSTS

180 Annual costs are expected for the remainder of the current crop rotation and can vary year on year. Below are annual cost estimates.

Table 31: Estimated Annual Costs ($/ha)

Type	$/ha/yr
Administration	5
Maintenance and protection	10
Forest health / pest	10
Insurance	30
Forest Management	25
Rates	11
Total	**91**

6.5.5 HARVESTING COSTS

181 To calculate the net stumpage value of the stands, the following harvesting and cartage costs have been adopted.

182 **Logging & Loading**

Logging costs vary by stocking rate, piece size and difficulty in harvesting the block. We have adopted the following rates. We have increased the harvest rates for the Cypress species, due to the small piece size.

Table 32: Logging & Loading $/m³

Forest	GB	HB
RF	42	50

183 **Harvest Management**

A commission fee of $5/m³ has been included for items such as harvest planning, Resource Consent application, production monitoring, log marketing, recording and documentation.

184 **Roading & Skid Formation**

These have been included in the Stumpage calculation at various rates based on an estimate of existing roading networks, the amount of new roading required and volume of wood per hectare.

185 We have adopted ground base roading and harvest infrastructure costs of $4,000 per hectare, and hauler base of $8,000 per hectare. For second rotation stands, we have adopted 50 % of this rate acknowledging reduced construction costs. Harvest road maintenance costs of $2.50/m³ have been adopted.

186 **Cartage**

It is assumed that the P40, P30, A, K, KI and KIS grades will be sold export at Wellington. The S30, S20 and domestic chip grades will be destined to Masterton with the P35 grade sold at Kiwi Lumber, Dannevirke

187 Cartage costs have been incorporated in the model based on recent actual quotes.

188 It is acknowledged that further volume within grades may be sold domestically and/or export, however invariably, a cartage differential cost is often factored into the delivered log price.

189 **Other Costs**

Other costs allowed are:

Table 33: Other Costs

Type	$/m³
Contingencies & post-harvest clean-up	1.00
Forest Grower's Levy	0.33
Weighbridge	0.50

6.6 VALUATION

190 Under the set of assumptions outlined in this report and through adopting the hybrid compounding /discounted methodology, we assess the crop expectation value of the timber as at 15 February 2021 at:

TWO HUNDRED & TWENTY NINE THOUSAND DOLLARS ($229,000) plus GST, if any.

Section 7: PHOTOGRAPHS

Recent re-establishment on Te Hau

Roading on Te Puhi

Young crop within Ratahuia

Cutover on Ratahuia

Section 8: VALUATION POLICIES

8.1.1 PROPERTY DESCRIPTION

191 The appraisal is based on the property description included in this report including any undertakings given by the Owner and defined in the report.

8.1.2 PURPOSE & DISCLAIMER OF LIABILITY

192 Our appraisal and report is strictly confidential to the party to whom it is addressed and is prepared solely for the specific purpose to which it refers. No responsibility whatsoever is accepted for reliance on the appraisal report for other purposes. Furthermore, no responsibility whatsoever is accepted to persons other than the party to whom the appraisal and report is addressed for any errors or omissions whether of fact or opinion.

193 The Valuer accepts no responsibility whatsoever for the accuracy of the statements and opinions expressed in the report. The report has been prepared by the Valuer as an employee of and on behalf of, Morice Limited (Morice) and only Morice accepts responsibility for its contents.

8.1.3 PUBLICATION

194 Neither the whole nor any part of our reports, nor any reference thereto, may be included in any published document, circular or statement, nor published in any way without our written approval of the form and context of such publication or disclosure. Such approval is required whether or not Morice is referred to by name and whether or not the reports are combined with others.

8.1.4 DATE OF VALUATION

195 Unless otherwise stated the effective date of the valuation is the date of the inspection of the property. The valuation is current as at the date of valuation only. The value assessed herein may change significantly and unexpectedly over a relatively short period (including as a result of general market movements or factors specific to the particular property). We do not accept liability for losses arising from such subsequent changes in value.

196 Without limiting the generality of the above comments, we do not assume any responsibility or accept any liability where this valuation is relied upon after the expiration of three (3) months from the date of inspection, or such earlier date if you become aware of any factors that have any effect on the valuation.

8.1.5 LEGISLATION

197 Unless otherwise stated in our report, we have not obtained a Land Information Memorandum (LIM) or a Property Information Memorandum (PIM) for the property. Unless otherwise stated, it is assumed the property conforms to all the requirements of the Resource Management Act 1991, the New Zealand Building Code contained in the First Schedule to the Building Regulations 1992, the Building Act 1991, the Building Act 2004 and any Historic Places Trust Registration.

198 Our valuation is also on the basis that the property conforms to the Health and Safety at Work Act 2015, the Fire Safety and Evacuation of Buildings Regulations 2006, and the Disabled Persons Community and Welfare Act 1975.

8.1.6 INFORMATION SUPPLIED

199 Where stated in the report that another party has supplied information, the information is believed to be reliable however we accept no responsibility should it prove erroneous. Where information is given without being attributed directly to another party the information has been obtained by our search of records and examination of documents, or by inquiry from Government or other appropriate sources.

8.1.7 SITE CONDITIONS

200 We do not carry out investigations on site in order to determine the suitability of ground conditions and services, nor do we undertake structural, environmental or geotechnical surveys.

201 Unless notified to the contrary, our appraisal is on the basis that these aspects are satisfactory and that the site is clear of asbestos, underground minerals or other workings, methane gas or other noxious substances.

202 In the case of properties that may have redevelopment potential, we assume that the site has a load bearing capacity suitable for the anticipated form of development without the need for additional expensive foundations or drainage systems.

8.1.8 ENVIRONMENTAL CONTAMINATION

203 Our appraisal assumes that no contaminative or potentially contaminative use is, or ever has been, carried out on the property. Unless specifically instructed, we do not undertake any investigation into the past or present uses of either the property or any adjoining or nearby land, to establish whether there is any potential for contamination from these uses and assume that none exists.

8.1.9 GOODS AND SERVICES TAX

204 In preparing our appraisal, no allowances are made for any liability which may arise for payment of income tax or any other property related tax, whether existing or which may arise on development or disposal, deemed or otherwise. When analysing comparable sales/rental evidence, we have attempted to ascertain the GST status of the transaction. If not stated in general terms we refer to residential properties as being inclusive of GST and non-residential properties being plus GST (if any).

8.1.10 RECORD OF TITLE

205 Where specifically stated in the report, we assume that all improvements lie within Title boundaries and the subject property has a good and marketable Title free from any pending litigation.

206 We also assume that all documentation is satisfactorily drawn and that there are no unusual or erroneous easements, restrictions, covenants or other outgoings which would adversely affect the value or negotiability of the relevant interest(s). Such registration may include wāhi tapu and Historic Places Trust Registrations.

8.1.11 INSPECTIONS

207 Our valuation has been assessed conditional upon all buildings and structures being constructed strictly in accordance with recommended practices and free from defect unless otherwise stated. We are not qualified to undertake, nor have we undertaken, a structural survey of the buildings or structures. We accept no liability for any defects that may arise as a result of poor building design, construction methods or building materials. If you have any concerns you should engage a suitably qualified person to report on this matter. Defects revealed by a suitably qualified expert may affect the value of the property.

8.1.12 EARTHQUAKE PRONE BUILDINGS

208 We are aware that a number of buildings are, or may be, potentially affected by Local Territorial Authority policies for "earthquake-prone" buildings (Earthquake-Prone Building Policies) required to be in place under the Building Act 2004. The Earthquake-Prone Building Policies may require building owners to undertake engineering investigations and subsequent structural upgrading, demolition or other steps to meet the requirements of the Earthquake-Prone Building Policies.

209 Unless otherwise stated our valuation makes no allowance for any costs of investigation, upgrading, demolition or other steps which may be incurred by the building owner to meet the requirements of Earthquake-Prone Building Policies. We are not qualified to determine the "earthquake-prone" status of the buildings.

210 Our valuation is therefore subject to review, investigation and assessment of seismic performance of the buildings by a suitably qualified engineer to determine the "earthquake-prone" status of the building and where required, an estimate of any costs for structural upgrading, demolition or other steps required for the building to meet the requirements of Earthquake-Prone Buildings Policies. If the building is found to be "earthquake-prone" this finding is likely to impact on the value of the property, and our valuation may materially alter as a result.

8.1.13 MORTGAGE RECOMMENDATION

211 As per Australian and New Zealand Valuation Standards and Guidance Notes (ANZVGN), unless specifically requested by a lender the valuation report should make no specific recommendation as to the suitability of the property as a security or the maximum loan as an amount or percentage of value.

212 It is a matter for the lender to assess the risk involved and make their own assessment in fixing the terms of the loan, such as the percentage of value to be advanced, the provision for repayment of the capital and the interest rate. The valuation report has included comment on commonly known, readily ascertainable and/or reasonably foreseeable property specific and market factors as are relevant to the market value and marketability of the property, to assist in informing the lender. Please note that the market value may change in the future due to market conditions and changes to the state of this property.

213 Note that the market value as at the date of valuation, on a willing buyer/willing seller basis, does not allow for the consequences and costs of a forced sale.

8.1.14 PROFESSIONAL INDEMNITY

214 We confirm that, as at the date of valuation, we hold, enforce and effect Professional Indemnity Insurance for our valuation assessments.

8.1.15 CASHFLOW DISCLAIMER

215 The projected forestry yields and cashflows calculated in this valuation are based on the methodology described. This calculation is not a guarantee or promise by Morice Ltd of actual returns which may be greater or less than those calculated. Cashflows may be affected by items such as different log prices than that adopted, harvest management and optimisation of log grades, change in logging and harvest costs, along with detrimental effects affecting forest health and projected tree growth.

Appendix 1 - Valuation Summary		Total All Properties	Ratahuia	Te Hau	Te Puhi	Johnsons
Area Allocation						
Post 89 Productive Land		547.9	143.0	196.2	208.7	-
Pre 90 Productive Land		313.8	94.8	121.4	95.1	2.5
		-				
PPA (Potentially Productive Area)		861.7	237.9	317.6	303.8	2.5
Post 1989 Registered - Unstocked		-	-	-	-	-
Non Productive		191.3	64.2	28.7	98.3	0.2
NPA (Non Productive Area)		191.3	64.2	28.7	98.3	0.2
Adopted CT/Legal Area		1,053.1	302.0	346.3	402.2	2.7
Post 1989 Area % ppa		64%	60%	62%	69%	0%
PPA %		82%	79%	92%	76%	92%
Lead Distances (km)						
Includes internal			*0.5*	*0.5*	*0.5*	*0.5*
Sawlog (pruned) Dannevirke	*25%*	150	149	150	151	149
Sawlog (unpruned) Masterton	*30%*	51	49	51	52	49
Pulp Masterton	*5%*	51	49	51	52	49
Export Wellington	*40%*	144	140	141	151	140
Wt Average by destination	*100%*	113	*110*	*112*	*116*	*110*
Forest Statistics						
Terrain (Ground Based)		45.1%	27.0%	49.7%	54.2%	100.0%
Terrain (Hauler Based)		54.9%	73.0%	50.3%	45.8%	0.0%
Avg. Altitude m		196	250	200	150	260
Min Altitude m		100	110	110	100	240
Max Altitude m		380	380	270	250	280
PPA by Terrain/ETS Class		-				
Post 1989 GB		249.2	38.6	97.4	113.1	-
Post 1989 HB		298.8	104.4	98.7	95.6	-
Pre 1990 GB		139.9	25.6	60.3	51.6	2.5
Pre 1990 HB		173.9	69.2	61.1	43.6	-
Post 1989 Non Eligible GB		-				
Post 1989 Non Eligible HB		-				
PPA		861.7	237.9	317.6	303.8	2.5
		-				
Land Value Adopted ($/ha)		-				
Post 1989 GBe		4,727	4,600	4,750	4,750	4,750
Post 1989 HBe		3,288	3,220	3,325	3,325	3,325
Pre 1990 GBe		3,123	3,000	3,150	3,150	3,150
Pre 1990 HBe		2,163	2,100	2,205	2,205	2,205
Post 1989 Non Eligible GB						
Post 1989 Non Eligible HB						
Post 1989 Registered - Unstocked						
Non Productive		100	100	100	100	100
Land Value						
Post 1989 GBe		1,177,751	177,472	462,874	537,405	-
Post 1989 HBe		982,389	336,328	328,322	317,740	-
Pre 1990 GBe		436,866	76,736	189,969	162,445	7,718
Pre 1990 HBe		376,214	145,421	134,747	96,045	-
Post 1989 Registered - Unstocked						
Non Productive		19,135	6,415	2,865	9,834	21
Total Land		2,992,355	742,372	1,118,777	1,123,468	7,738
Average productive LV/ha		*3,450*	*3,094*	*3,513*	*3,665*	*3,150*
Improvement Value Adopted						
Fencing (km)		4.2	-	1.7	2.5	-
Fencing ($m)			5.0	5.0	5.0	5.0
Fencing Value		21,000	-	8,500	12,500	-
Roads		-				
Ha		862	237.9	317.6	303.8	2.5
$Ha			300	300	300	300
Roading Value		258,522	71,357	95,282	91,148	735
Improvements Value		279,522	71,357	103,782	103,648	735
Pre 1990 Valuation Summary		Total	Ratahuia	Te Hau	Te Puhi	Johnsons
Improvement Value		280,000	71,000	104,000	104,000	1,000
Land Value		2,259,000	564,000	852,000	835,000	8,000
Total Land & Impts Value		2,539,000	635,000	956,000	939,000	9,000
Treecrop		229,000	224,000			5,000
Forest Value		2,768,000	859,000	956,000	939,000	14,000
Share land and Impts		*100.0%*	*25.0%*	*37.7%*	*37.0%*	*0.4%*
Post 1989 Valuation Summary		Total	Ratahuia	Te Hau	Te Puhi	Johnsons
Improvement Value		280,000	71,000	104,000	104,000	1,000
Land Value		2,992,000	742,000	1,119,000	1,123,000	8,000
Total Land & Impts Value		3,272,000	813,000	1,223,000	1,227,000	9,000
Treecrop		229,000	224,000			5,000
Forest Value		3,501,000	1,037,000	1,223,000	1,227,000	14,000
Share land and Impts		*100.0%*	*24.8%*	*37.4%*	*37.5%*	*0.3%*
Difference pre/post land and Impts		0.0	-0.2%	-0.3%	0.5%	-0.1%

Forestry Sales Evidence

#	ETS Status	Sale Date	Use	District	Gross Area	PPA	Gross Price	Land Value	$PPHA	$GBe	$HBe	Ground %	Lead
1	Post 89 - 53%	Jan/19	F- Land & Trees	Wairau Valley	2,411.0	2,031.1	4,500,000	4,341,200	2,119	2,254	1,578	80	ex106, sl91, plp 95
2	Post 89 - 79.3%	May/19	F- Land & Trees	Otago	2,995.6	2,624.1	9,000,000	8,575,533	3,254	3,375	2,363	88	EX 85, SL 29, PLP 123
3	Post 89 - 98.3%	Feb/21	F- Land & Trees	Masterton	276.2	236.7	3,825,000	766,873	3,240	3,560	2,492	70	E 163, SL 72, PLP 305
4	Post 89 - 92%	Jul/19	F- Land & Trees	Invercargill	674.6	611.9	2,486,000	2,203,904	3,592	3,703	2,592	90	ex 107, sl 48, plp 100
5	Post 89 - 100%	Mar/20	F- Land & Trees	Mangamahu	326.9	221.3	3,755,615	607,110	2,695	3,850	2,695	0	EX 223,SL 223, PLP 97
6	Post 89 - 94%	May/20	F- Land & Trees	Ngamatapouri	354.3	138.0	1,920,000	420,100	2,887	4,124	2,887	0	Ex 174, SL249, PLP 175
7	Post 89 - 92%	Aug/19	F- Land & Trees	Invercargill	989.0	774.3	3,377,000	3,283,970	4,214	4,214	2,950	100	ex 77, sl 87, plp 47
8	Post 89 -100%	Mar/20	F- Land & Trees	Gisborne	289.2	230.1	850,000	831,600	3,588	4,486	3,140	33	EX 75, SL 85, PLP 274
9	Post 89 - 100%	Jul/20	F- Land & Trees	Balclutha	290.9	233.0	1,000,000	973,525	4,153	4,490	3,143	75	EX 92, SL 25, PLP 101
10	Post 89 - 53.5%	Jul/19	F- Land & Trees	Bennydale	346.7	246.5	7,395,450	953,266	3,826	4,502	3,151	50	ex 176, sl 32, plp 86
11	Post 89 -100%	Dec/19	F - Cutover	Wairoa	324.2	286.0	1,330,000	1,261,572	4,398	4,755	3,328	75	EX 107, SL 90, PLP 90
12	Post 89 - 100%	Apr/19	F - Cutover	Otago	127.9	435.7	931,240	2,189,315	5,024	5,024	3,517	100	EX33 , SL 45 , CHP 153
13	Post 89 - 100%	Jun/20	F- Land & Trees	Taupo	272.6	269.7	15,800,000	1,483,659	5,500	5,500	3,850	100	SL60,EX160, PLP60
14	Post 89 - 98%	Feb/19	F- Land & Trees	Whangarei	559.6	492.4	2,600,000	2,553,560	5,172	5,702	3,991	69	EX60, SL42, CHP37
15	Post 89 - 100%	Jun/19	F - Cutover	Kaipara Flats	105.6	95.0	780,000	426,500	4,477	5,777	4,044	25	EX 93, SL 112, CHP 108
16	Post 1989 - 100%	Dec/20	F- Land & Trees	Hastings District	184.3	162.0	8,700,000	865,393	5,328	5,855	4,099	70	E 56, Pulp, 39, SL 39
17	Post 89 - 100%	Sep/19	F- Land & Trees	Ohakuri	76.0	65.4	450,000	420,500	6,417	6,938	4,856	75	EX 125, SL 60, PLP 40
18	Pre 90 - 68%	Jul/18	F- Land & Trees	Glentunnel	1,122.3	891.0	10,000,000	1,554,975	1,719	2,097	1,468	40	EX - 80, SL - 79, PLP - 66
19	Pre 90 - 100%	Oct/19	F- Land & Trees	Takaka	174.4	128.0	1,500,000	206,650	1,578	2,207	1,545	5	EX 90, SL 76, PLP 75
20	Pre 90 - 100%	Jun/19	F- Land & Trees	Kaitaia	566.0	425.2	8,500,000	1,078,500	2,503	2,581	1,807	90	EX 156, sl 39, plp 39
21	Pre 90 - 100%	Nov/18	F- Land & Trees	Whanganui	321.8	219.1	1,000,000	415,585	1,850	2,643	1,850	0	EX 163, SL 127, PLP 118
22	Pre 90 - 100%	Jul/18	F- Land & Trees	Wellington	139.8	93.7	1,760,000	204,232	2,130	2,918	2,043	10	EX35, SL 75, PLP 259
23	Pre 90 - 72%	Jul/19	F- Land & Trees	Gisborne	31,783.0	24,822.5	69,000,000	63,096,640	2,514	3,338	2,337	18	EX 69
24	Pre 90 - 100%	Jul/18	F- Land & Trees	Otago	52.3	48.1	390,000	135,600	2,803	3,617	2,532	25	EX 37 ,SL 30 , CHP 138
25	Pre 90 - 100%	Mar/18	F- Land & Trees	Mangkino	980.0	933.0	3,822,000	3,565,436	3,817	3,817	2,672	100	EX 110, SL70, PLP 20
26	Pre 90 - 100%	Sep/20	F- Land & Trees	Ngaruawahia	1,126.1	777.6	2,600,000	2,330,600	2,952	3,885	2,719	20	Ex140, Sl34, PLP 124
27	Pre 90 - 100%	Apr/19	F - Cutover	Kinleith	141.5	139.5	566,562	524,718	3,761	4,001	2,801	80	EX - 109, SL - 69, PLP - 21
28	Pre 90 - 94%	Jul/19	F - Cutover	Kinleith	987.4	983.5	4,850,000	4,092,890	4,161	4,161	2,913	100	EX - 109, SL - 69, PLP - 21
29	Pre 1990 - 77%	Apr/19	F - Cutover	Rotorua	1,058.3	390.0	2,600,000	2,483,000	5,081	5,082	3,557	100	EX 54, SL 47, PLP 87
30	Pre 90 - 100%	Aug/18	F- Land & Trees	Otago Coast	29.0	27.0	262,000	118,900	4,394	6,145	4,302	5	EX 37 ,SL 30 , CHP 138

Appendix 3A Crop List Wairarapa Group 1 228,952

Crop ID	Forest	Cmpt	CropType	Species	Regime	LogPrice	YOE	Rotation	Productive	Area ha	Awaiting Planting	%GB	Stand Value
1	Ratahuia	1101	350PRWT	P.Rad	PR	Prad	2011	2	Y	5.6		0.0%	30,406
2	Ratahuia	1301	350PRWT	P.Rad	PR	Prad	2013	2	Y	14.3		0.0%	52,528
3	Ratahuia	1302	350PRWT	P.Rad	PR	Prad	2013	2	Y	37.3		0.0%	137,059
4	Ratahuia	1501	350PRWT	P.Rad	PR	Prad	2015	2	Y	1.8		100.0%	3,769
5	Ratahuia	JOHN-1-1501	350PRWT	P.Rad	PR	Prad	2015	2	Y	2.5		100.0%	5,188

Appendix 3B Yield Table Wairarapa Group 1

Crop ID	Forest	Species	YOE	Cfell Age	Harvest Yr	CT	P40	P35	P30	S30	A	S20	K	Ki	KIS	DomPulp	Total
1	Ratahuia 1101	P.Rad	2011	27	2038	350PRWT_27	37.8	113.3	13.5	99.1	198.3	30.3	60.6	54.6	29.7	22.7	659.8
2	Ratahuia 1301	P.Rad	2013	27	2040	350PRWT_27	37.8	113.3	13.5	99.1	198.3	30.3	60.6	54.6	29.7	22.7	659.8
3	Ratahuia 1302	P.Rad	2013	27	2040	350PRWT_27	37.8	113.3	13.5	99.1	198.3	30.3	60.6	54.6	29.7	22.7	659.8
4	Ratahuia 1501	P.Rad	2015	27	2042	350PRWT_27	37.8	113.3	13.5	99.1	198.3	30.3	60.6	54.6	29.7	22.7	659.8
5	Ratahuia JOHN-1-15(	P.Rad	2015	27	2042	350PRWT_27	37.8	113.3	13.5	99.1	198.3	30.3	60.6	54.6	29.7	22.7	659.8

Crop ID			1	2	3	4	5
Forest			Ratahuia	Ratahuia	Ratahuia	Ratahuia	Ratahuia
Compt/stand			1101	1301	1302	1501	JOHN-1-1501
Year Planted			2011	2013	2013	2015	2015
Species			P.Rad	P.Rad	P.Rad	P.Rad	P.Rad
Regime			PR	PR	PR	PR	PR
Log Price			Prad	Prad	Prad	Prad	Prad
CropType			350PRWT	350PRWT	350PRWT	350PRWT	350PRWT
Clearfell Age			27	27	27	27	27
Clearfell Year			2038	2040	2040	2042	2042
Clearfell Area (Ha)	#N/A		5.6	14.3	37.3	1.8	2.5
Terrain (% Ground)			0%	0%	0%	100%	100%
Terrain (% Hauler)			100%	100%	100%	0%	0%
YIELDS(M3/HA)							
P40			37.8	37.8	37.8	37.8	37.8
P35			113.3	113.3	113.3	113.3	113.3
P30			13.5	13.5	13.5	13.5	13.5
S30			99.1	99.1	99.1	99.1	99.1
A			198.3	198.3	198.3	198.3	198.3
S20			30.3	30.3	30.3	30.3	30.3
K			60.6	60.6	60.6	60.6	60.6
Ki			54.6	54.6	54.6	54.6	54.6
KIS			29.7	29.7	29.7	29.7	29.7
DomPulp			22.7	22.7	22.7	22.7	22.7
TRV			659.8	659.8	659.8	659.8	659.8
LOG PRICES($/M3)							
P40			176	176	176	176	176
P35			172	172	172	172	172
P30			150	150	150	150	150
S30			121	121	121	121	121
A			145	145	145	145	145
S20			106	106	106	106	106
K			122	122	122	122	122
Ki			116	116	116	116	116
KIS			101	101	101	101	101
DomPulp			34	34	34	34	34
GROSS REVENUE($/HA)							
P40			6,644	6,644	6,644	6,644	6,644
P35			19,538	19,538	19,538	19,538	19,538
P30			2,029	2,029	2,029	2,029	2,029
S30			12,026	12,026	12,026	12,026	12,026
A			28,819	28,819	28,819	28,819	28,819
S20			3,214	3,214	3,214	3,214	3,214
K			7,366	7,366	7,366	7,366	7,366
Ki			6,337	6,337	6,337	6,337	6,337
KIS			2,998	2,998	2,998	2,998	2,998
DomPulp			765	765	765	765	765
Total	#N/A		89,736	89,736	89,736	89,736	89,736
HARVEST COSTS ($/M3)							
Ground Log and Load			42	42	42	42	42
Hauler Log And Load			50	50	50	50	50
Roading & Skid Formation			8.6	8.6	8.6	5.5	5.5
Contingencies & Post Harvest Cleanup		1.00	1.00	1.00	1.00	1.00	1.00
Commission		5.00	5.00	5.00	5.00	5.00	5.00
Levy		0.33	0.33	0.33	0.33	0.33	0.33
Weigh Bridge		0.50	0.50	0.50	0.50	0.50	0.50
Cost ($/m3) adjusted for ground/hauler split			65.39	65.39	65.39	54.36	54.36
Cost ($ha)			43,148	43,148	43,148	35,870	35,870
CARTAGE COST ($/M3)							
Weighted Average $m3			31	31	31	31	31
Cost ($/ha)			20,412	20,412	20,412	20,412	20,412
STUMPAGE ($/HA)							
P40			3,005	3,005	3,005	3,422	3,422
P35			8,622	8,622	8,622	9,872	9,872
P30			725	725	725	875	875
S30			2,477	2,477	2,477	3,571	3,571
A			9,721	9,721	9,721	11,908	11,908
S20			297	297	297	631	631
K			1,533	1,533	1,533	2,201	2,201
Ki			1,079	1,079	1,079	1,681	1,681
KIS			138	138	138	466	466
DomPulp		-	1,422	- 1,422	- 1,422	- 1,172	- 1,172
Total Stumpage (ha)			$ 26,175	$ 26,175	$ 26,175	$ 33,454	$ 33,454
Total Recoverable Volume (M3)		#N/A	3,722	9,423	24,586	1,175	1,617
Total Log Production Costs ($/ha)			$ 63,560	$ 63,560	$ 63,560	$ 56,281	$ 56,281
Total Log Production Costs ($/M3)			$ 96.33	$ 96.33	$ 96.33	$ 85.30	$ 85.30
Stumpage ($/M3)			$ 39.67	$ 39.67	$ 39.67	$ 50.70	$ 50.70
Total Stumpage	#N/A		$ 147,630	$ 373,786	$ 975,298	$ 59,548	$ 81,963

Appendix 3D - Valuation Wairarapa Group 1

Valuation Date 15-Feb-21
Discount Rate 7.75%

Crop ID :					1	2	3	4	5
Forest :					Ratahuia	Ratahuia	Ratahuia	Ratahuia	Ratahuia
Stand :					1101	1301	1302	1501	JOHN-1-1501
Species :					P.Rad	P.Rad	P.Rad	P.Rad	P.Rad
Regime :					PR	PR	PR	PR	PR
Croptype :					350PRWT	350PRWT	350PRWT	350PRWT	350PRWT
Planting Year :					2011	2013	2013	2015	2015
Age At Valn (yrs) :					9.6	7.6	7.6	5.6	5.6
DISCOUNTED REVENUE									
Clearfell Age :					27	27	27	27	27
Log Revenue (Pre Tax) :					26,175	26,175	26,175	33,454	33,454
Additional Risk if Mature :									
Adj Stumpage :					26,175	26,175	26,175	33,454	33,454
Discounted Revenue Post Tax :					7,156	6,163	6,163	6,785	6,785
DISCOUNTED COSTS									
Year	Operation	Spha	Cost Pre-tax ($/ha)						
5.7	1st Prune	400	1,400		-	-	-	1,392	1,392
7.5	2nd Prune	375	1,000		-	-	-	869	869
8.0	Thin Radiata		800		-	778	778	670	670
8.0	Foliar Sample		15		-	15	15	13	13
25.0	Pre-Harvest Inventory		200		63	55	55	47	47
Annual Rent $ha:	Variable	:			780	821	821	1,224	1,224
Annual Costs $ha:	91.0	:			921	970	970	1,012	1,012
Total Discounted Costs :					$1,764	$2,638	$2,638	$5,227	$5,227
Tree Crop Value ($/ha) :					$5,391	$3,525	$3,525	$1,558	$1,558
Stocked Area (Ha) :				61.4	5.6	14.3	37.3	1.8	2.5
Stand Value ($) :				218,662	$30,406	$50,334	$131,333	$2,773	$3,816
TREE CROP VALUE - EXPECTATION APPROACH :				$219,000					

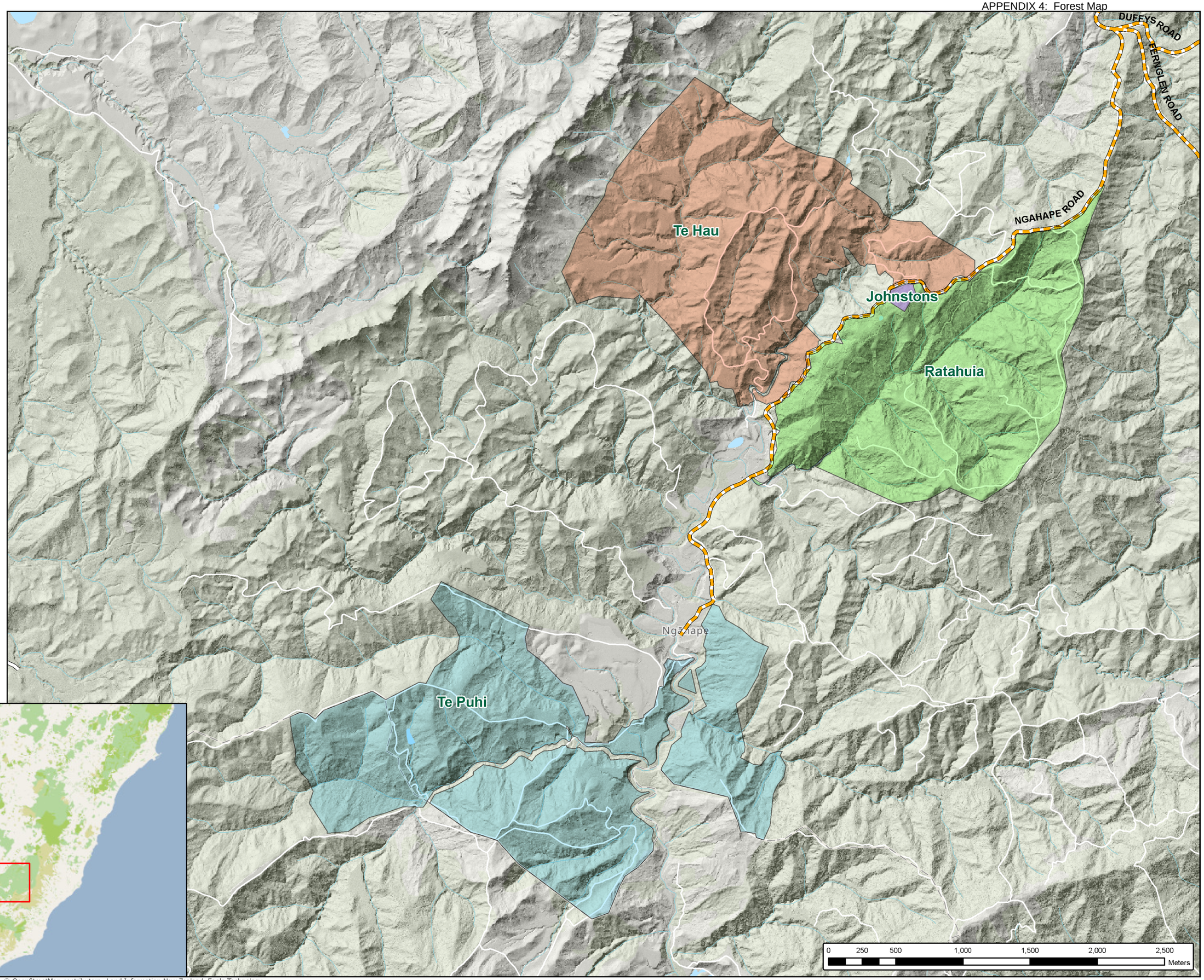
HYBRID METHOD					*P.Rad*	*P.Rad*	*P.Rad*	*P.Rad*	*P.Rad*
Hybrid Start					*3*	*3*	*3*	*3*	*3*
Hybrid Finish					*8*	*8*	*8*	*8*	*8*
Compound Rate 3.0%				%year	*20%*	*20%*	*20%*	*20%*	*20%*
Age At Valn (yrs) :					9.6	7.6	7.6	5.6	5.6
Cost Pre-tax :									
Year	Operation		($/ha)						
0.0	Land Prep + Establishment Prad		1,500	:	1,994	1,879	1,879	1,771	1,771
0.3	Release		356	:	469	442	442	417	417
5.7	1st Prune		1,400	:	1,572	1,482	1,482	-	-
7.5	2nd Prune		1,000	:	1,065	1,004	1,004	-	-
8.0	Thin Prad		800	:	839	-	-	-	-
8.0	Foliar Sample		15		16	-	-	-	-
Annual Costs:			91.0	:	998	767	767	549	549
Total Compounded Costs($/Ha) :					$6,953	$5,574	$5,574	$2,737	$2,737
Compounded Methodology Share of Value :					0%	8%	8%	48%	48%
Expectation Methodology Share of Value :					100%	93%	93%	53%	53%
Hybrid Approach Crop Value ($/Ha) :					$ 5,391	$ 3,678	$ 3,678	$ 2,118	$ 2,118
Stocked Area (Ha) :				61.4	5.6	14.3	37.3	1.8	2.5
Stand Value ($) :				228,952	30,406	52,528	137,059	3,769	5,188
TREE CROP VALUE USING HYBRID APPROACH				$229,000					

Wairarapa Group 1 Overview Map

1:25,000

Forest Enterprises
Creating wealth. Naturally.

Date: 16/04/2021



RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD
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R.W. Muir
Registrar-General
of Land

Identifier	**WN41B/129**
Land Registration District	**Wellington**
Date Issued	04 May 1992

Prior References
WN27A/128

Estate	Fee Simple
Area	346.2600 hectares more or less
Legal Description	Part Section 12 Ngahape Settlement

Registered Owners
Trustees Executors Limited

Interests

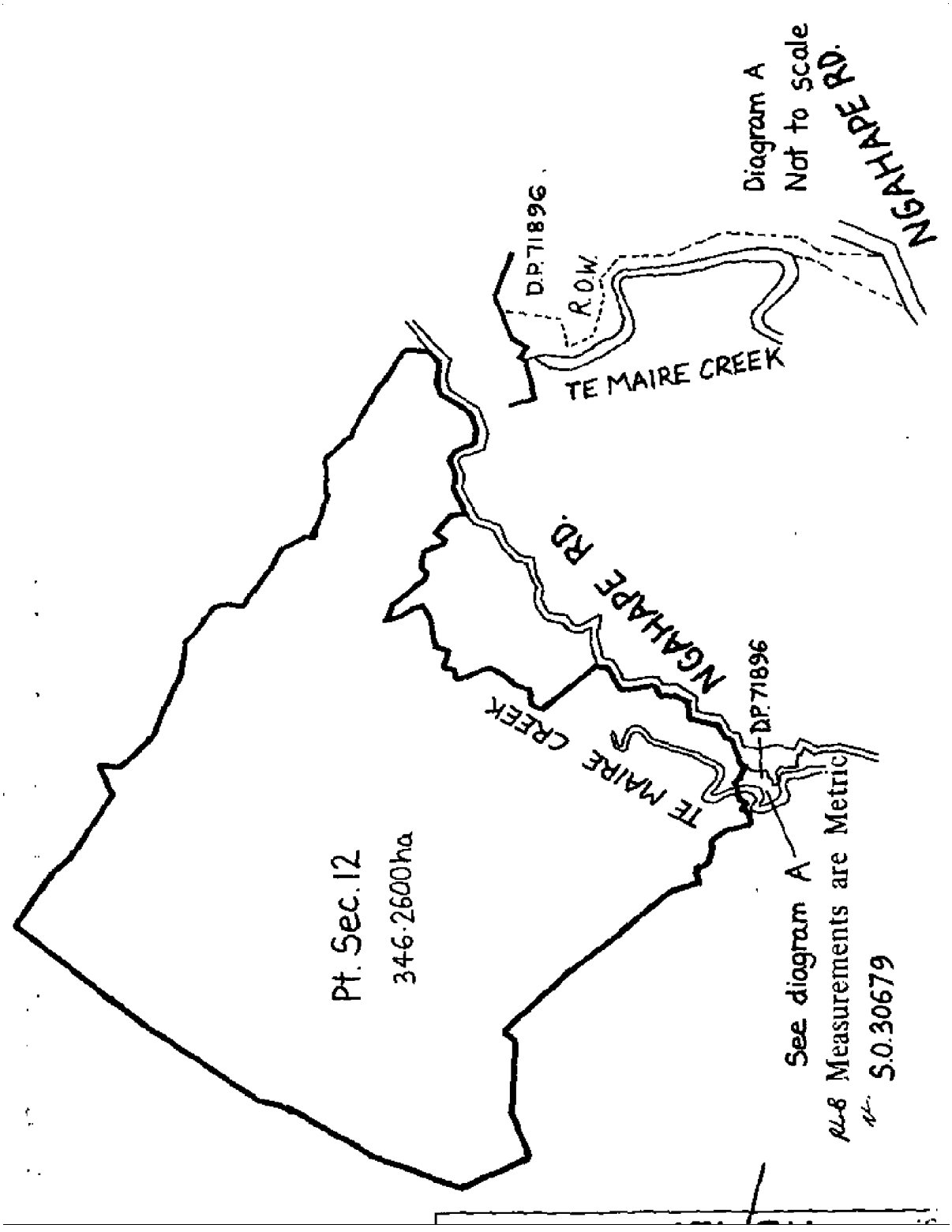
Subject to Section 59 Land Act 1948

Appurtenant hereto is a right of way created by Transfer B231105.3 - 4.5.1992 at 2:10 pm

9230338.1 Lease Term commencing from 31.8.2012 and terminate on 31.12.2028 CT 600817 issued - 23.11.2012 at 11:52 am

9280997.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - 7.1.2013 at 4:00 pm

Identifier **WN41B/129**



RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
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R.W. Muir
Registrar-General
of Land

Identifier	**WN28A/536**
Land Registration District	**Wellington**
Date Issued	11 December 1985

Prior References
WN529/113

Estate	Fee Simple
Area	67.5874 hectares more or less
Legal Description	Part Lot 1 Deposited Plan 13663

Registered Owners
Trustees Executors Limited

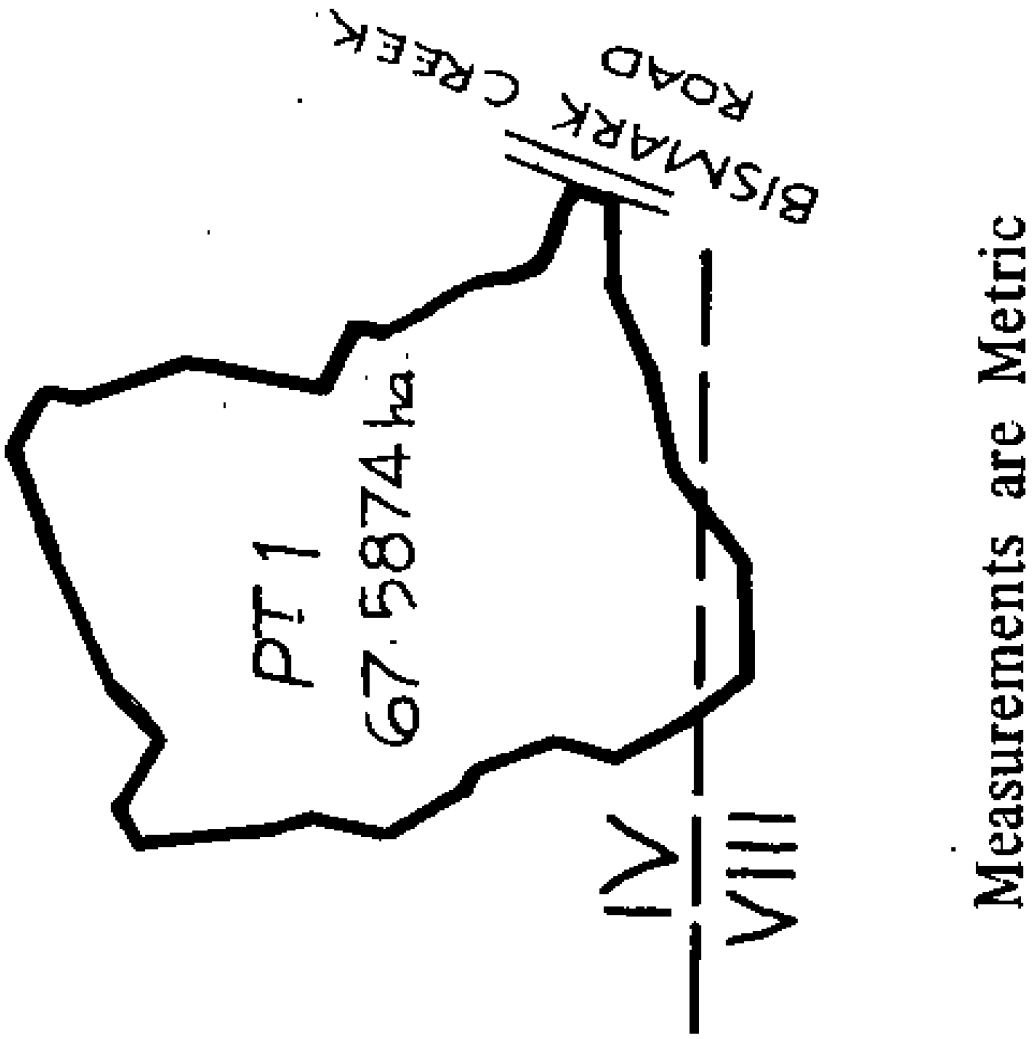
Interests

9110030.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - - 29.6.2012 at 1:37 pm

9230359.1 Lease Term commencing on 31.8.2012 and terminating on 31.12.2031 CIR 600820 issued - 23.11.2012 at 11:52 am

9280997.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - 7.1.2013 at 4:00 pm

Identifier **WN28A/536**



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R.W. Muir
Registrar-General
of Land

Identifier	**WN41A/340**
Land Registration District	**Wellington**
Date Issued	10 April 1992

Prior References
WN28A/534

Estate	Fee Simple
Area	5750 square metres more or less
Legal Description	Lot 4 Deposited Plan 74147

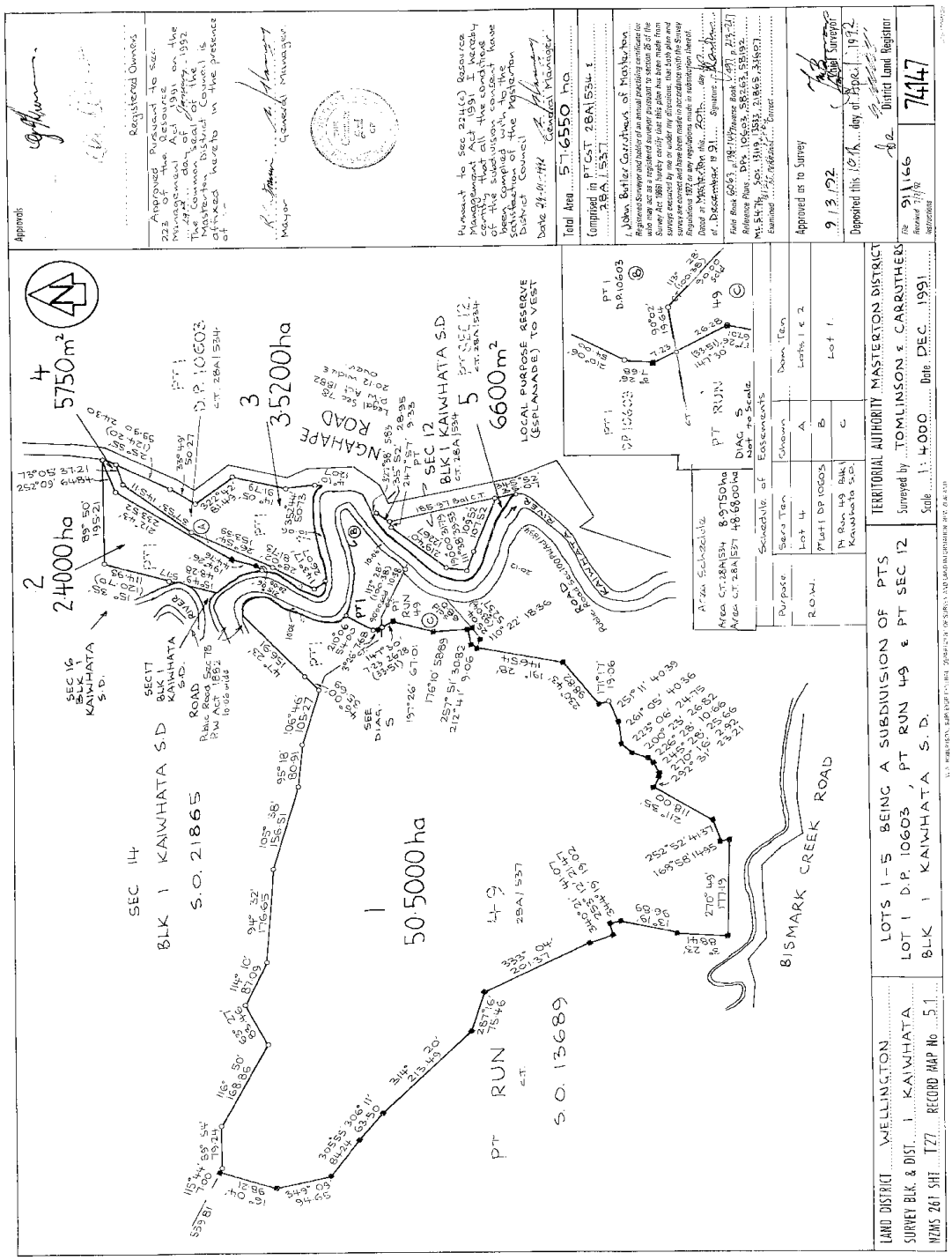
Registered Owners
Trustees Executors Limited

Interests

Subject to a right of way over part marked A on DP 74147 created by Transfer B247630.3 - 6.8.1992 at 11.42 am

9230359.1 Lease Term commencing on 31.8.2012 and terminating on 31.12.2031 CIR 600820 issued - 23.11.2012 at 11:52 am

Identifier **WN41A/340**



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R.W. Muir
Registrar-General
of Land

Identifier **WN41A/341**
Land Registration District **Wellington**
Date Issued 10 April 1992

Prior References
WN28A/534 WN28A/537

Estate	Fee Simple
Area	333.9990 hectares more or less
Legal Description	Part Section 12 Block I Kaiwhata Survey District, Part Lot 1 Deposited Plan 10603 and Part Run 49

Registered Owners
Trustees Executors Limited

Interests

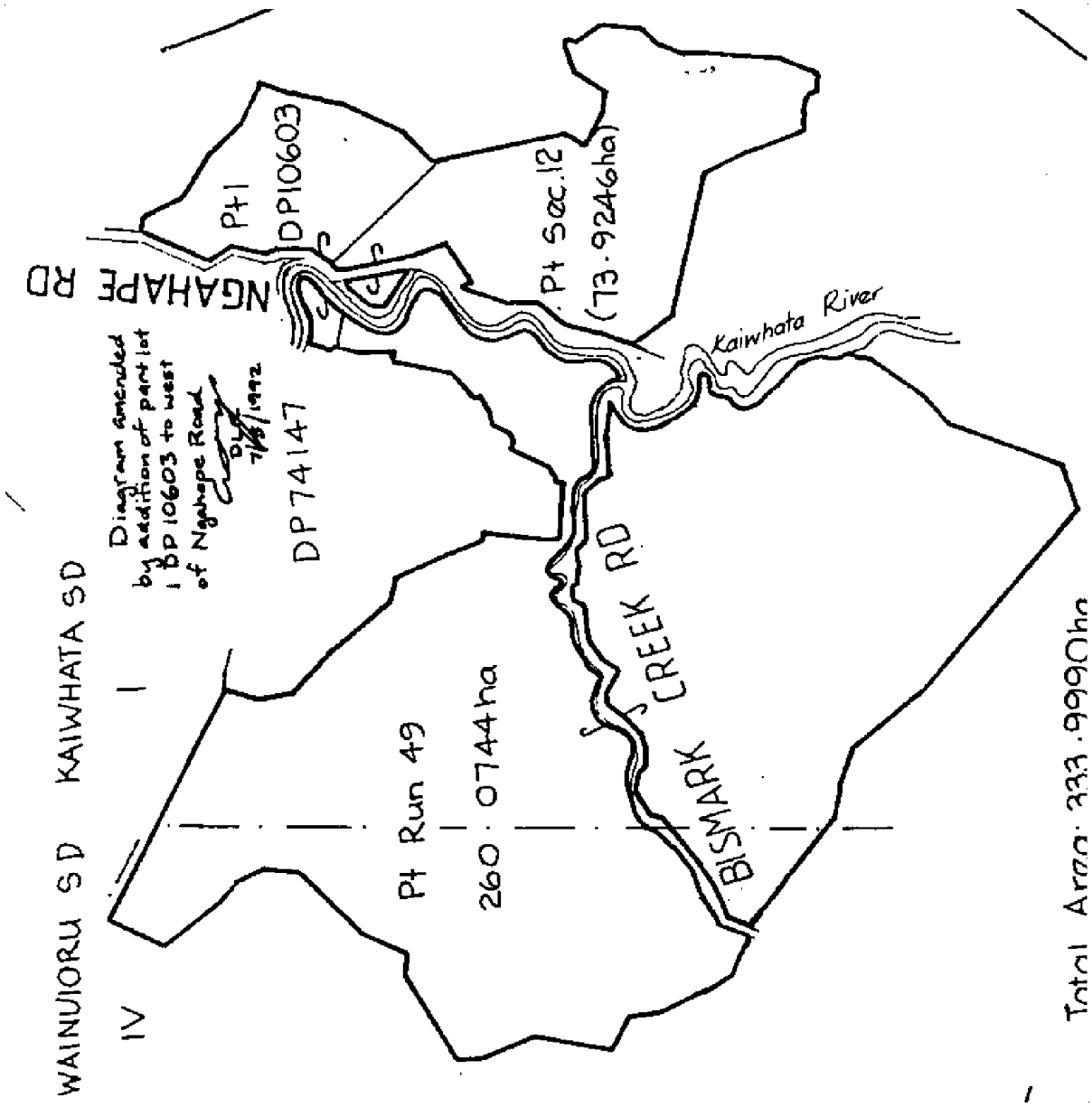
Subject to rights of way over parts marked B (affects Part Lot 1 DP 10603) and C (affects Part Run 49) on DP 74147 created by Transfer B247630.3 - 6.8.1992 at 11.42 am

9110056.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - 2.7.2012 at 11:50 am

9230359.1 Lease Term commencing on 31.8.2012 and terminating on 31.12.2031 CIR 600820 issued - 23.11.2012 at 11:52 am

9280997.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - 7.1.2013 at 4:00 pm

Identifier **WN41A/341**



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R.W. Muir
Registrar-General
of Land

Identifier **WN40C/828**
Land Registration District **Wellington**
Date Issued 11 March 1992

Prior References
WN38B/223

Estate	Fee Simple
Area	302.0097 hectares more or less
Legal Description	Part Section 13 Ngahape Settlement

Registered Owners
Trustees Executors Limited

Interests

Subject to Section 3 Petroleum Act 1937

Subject to Section 8 Atomic Energy Act 1945

Subject to Section 3 Geothermal Energy Act 1953

Subject to Sections 6 and 8 Mining Act 1971

Subject to Sections 5 and 261 Coal Mines Act 1979

Subject to Part IV A Conservation Act 1987

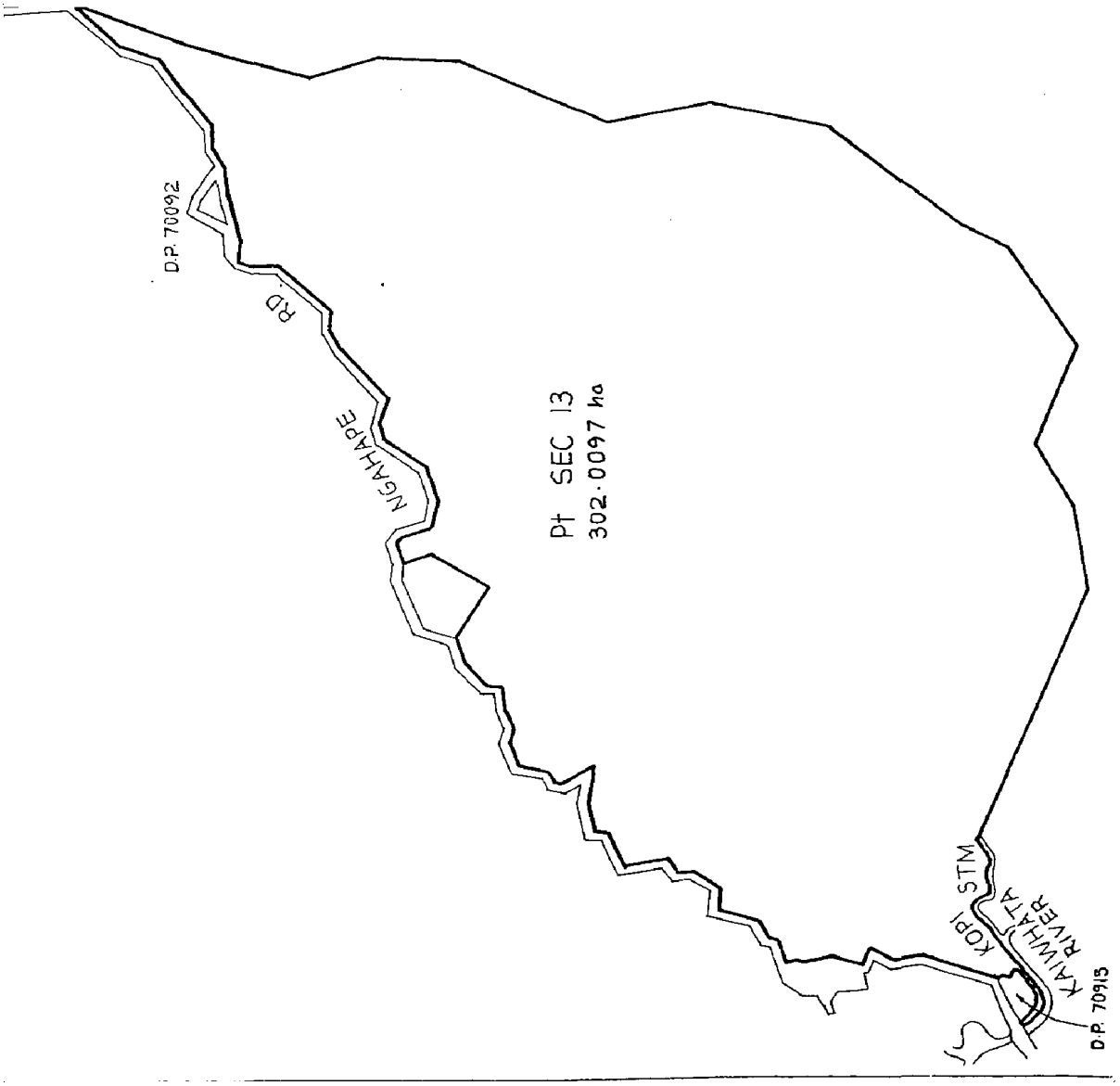
9230297.1 Lease Term commencing 31 August 2012 and terminating 31 December 2028 CIR 600812 issued. - 23.11.2012 at 11:51 am

9236042.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - 26.11.2012 at 4:15 pm

9280997.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - 7.1.2013 at 4:00 pm

11160396.1 CAVEAT BY WAIRARAPA ESTATE LIMITED - 28.6.2018 at 12:33 pm

Identifier **WN40C/828**



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R.W. Muir
Registrar-General
of Land

Identifier **WN518/85**
Land Registration District **Wellington**
Date Issued 14 August 1946

Prior References
WA 8/39 WNPR15/54

Estate	Fee Simple
Area	2.6583 hectares more or less
Legal Description	Section 11 Ngahape Settlement

Registered Owners
Forest Enterprises Limited

Interests

Subject to Section 206 Land Act 1924

8833875.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - - 8.8.2011 at 3:56 pm

Identifier **WN518/85**