Hawke's Bay Group

Allocation of Share of Collective Harvest

Table of Contents

Managed Investment Schemes in the Parehaka Group 2
Background 2
Calculated Harvest Share Percentages 2
Net Stocked Area Comparison 3
Forest Differences Identified 3
Appendix 1 – Notes on Harvest Share Methodology 6
Calculation of each MIS's Equitable Share of Collective Harvest 6
Appendix 2 – Projected Stumpage Summaries 7

Graeme Tindall
Managed Investments Director, Forest Enterprises

19 November 2021

Forest Enterprises®
Creating wealth. Naturally.

5 Papawai Place, Masterton 5810 | PO Box 128, Masterton 5840, New Zealand
Office +64 6 370 6360 | Fax +64 6 370 6369 | www.forestenterprises.co.nz

Managed Investment Schemes in the Hawke's Bay Group

(for Collective Harvest by Joint Venture)

- Esk Valley Forest Investment
- Glenross Forest Investment
- Hampton Forest Investment

Also referred to as the 'Hawke's Bay Group'.

Background

The three investments in the Hawke's Bay Group will be voting on a proposal to implement a collective harvest joint venture of their mature forest.

The underlying rationale of the proposal is that each investment is better off receiving a percentage share of the total revenue from the collective harvest of the forests owned by each investment in the joint venture than 100% of the revenue from the standalone harvest of their forest.

The harvest revenue sharing methodology to be used is the *Forest Crop Value,* as set out in *Appendix 1 – Notes on Harvest Share Methodology.* These notes are the relevant sections extracted from the comprehensive report entitled *Collective Harvest by Joint Venture – For Forest Enterprises Managed Investment Schemes.*

The purpose of this document is to report to Investors in the Hawke's Bay Group investments –

1. The calculated harvest shares for each investment; and
2. Identify and discuss the differences in the participant forests impacting on the calculated harvest shares.

Calculated Harvest Share Percentages

The methodology used resulted in Forest Crop Valuation for the three forests in the Hawke's Bay Group as per the table below. The table shows how the respective forest crop values translate to the corresponding percentage share of the harvest allocated to each investment.

Investment Name	Forest Crop Value	NPV Calculation of Harvest Share %	Calculated Harvest Share %
Esk Valley Forest Investment	$16,901,854	$16,901,854 / $34,612,020	48.8%
Glenross Forest Investment	$6,739,147	$6,739,147 / $34,612,020	19.5%
Hampton Forest Investment	$10,971,019	$10,971,019 / $34,612,020	31.7%
Total Forest Crop Value	**$34,612,020**		**100.0%**

The output is that the Esk Valley Investment will receive 48.8% of the total net revenue from the collective harvest, Glenross Investment 19.5.%, and 31.7% for the Hampton Investment.

We have made two refinements to the Audited Financial Statements to enable the fair allocation of collective harvest revenue between the participant forests in the Group.

The discount rate of 3.5% has been adopted based on the review of discount rates by Deloitte. We have used a rate at the lower end of the range to rebalance the rate towards the 'time value of money' component from the 'risk premium' component of the rate. The lower rate also reflects recent declines in term deposit interest rates (see HBG Webpage for Deloitte's review).

We have revised the forecast wood flow and cash flow from each of the participating forests, so each is as at 31-March 2021, and all the key assumptions underlying tree crop value are on the same basis. All forecasts of total recoverable volume, by age, are based on the yield tables derived from LiDAR inventory caried out in 2020, with volumes by log grade derived from previous on-ground inventory (mid rotation) carried out in 2014/2015. Log prices and production costs are all at a common time and on a common basis. All forests were last mapped in 2016/17.

Net Stocked Area Comparison

As expressed in the Notes in Appendix 1, the key measure against which the calculated harvest share percentage is reported is by comparison with the Net Stocked Area percentage of each forest. This is because, all other factors being equal, the calculated harvest share percentage for each forest would be the same percentage as the net stocked area percentage. Any differences in the calculated harvest share percentages must therefore be explained and rationalised with reference to actual differences between each participant forest.

The table below compares the calculated Harvest Share percentage with the Net Stocked Area percentage.

Investment Name	Net Stocked Area	Net Stocked Area %	Harvest Share %	Difference
Esk Valley Forest Investment	498.8	43.9%	48.8%	+4.9%
Glenross Forest Investment	226.4	19.9%	19.5%	-0.4%
Hampton Forest Investment	411.5	36.2%	31.7%	-4.5%
Total Forest Crop Value	**1,136.7**	**100.0%**	**100.0%**	

The comparison highlights that the individual forests have differences which result in a harvest share percentage shift relative to net stocked area. This is due mainly to the relative stumpage differences (refer table below). The balance of this report identifies and discusses these forest differences.

IMPORTANT NOTE – The differences in the calculated harvest share percentage compared with the net stocked area percentage are NOT a measure of the investment return for each of the Hawke's Bay Group Investments. The investment return is a factor of both the income to be received from the harvest share percentage, PLUS the costs incurred by each forest from land purchase to the conclusion of the investment, and each investment has a different cost history.

Forest Differences Identified

The differences between the Hawke's Bay Group forests in Age Class Mix and Projected Stumpage impact the respective Forest Crop Values and therefore the calculated harvest share percentages for the investments.

1. Age Class Mix Differences

The table below analyses the Hawke's Bay Group forests' Net Stocked Areas by age class, and the resulting totals –

Forest Name	1996	1997	Other	Total	1996 %	1997 %	Other %
Esk Valley Forest	209.0	276.0	13.8	498.8	42%	55%	3%
Glenross Forest	23.4	185.4	17.7	226.4	10%	82%	8%
Hampton Forest	106.2	305.3		411.5	26%	74%	
Total Forest Crop Value	338.6	766.7	31.5	**1,137.8**	**30%**	**67%**	**3%**

All forests were predominately planted in 1996 and 1997. Therefore, the age classes of the forests are similar. The discount rate adjusts for differences in age class composition.

Please note Esk Valley's replanted second rotation trees, due to wind throw in 2013, are included in the valuation allocation for the Land LP.

2. Projected Stumpage Differences

The table below sets out the projected stumpage for each forest. The stumpages and projected recoverable volume differ from those in the Annual Financial Report.

Forest Name	Projected Stumpage
Esk Valley Forest Investment	$44,055
Glenross Forest Investment	$38,434
Hampton Forest Investment	$34,226

These stumpage figures are from the projected stumpage summaries set out in *Appendix 2 – Projected Stumpage Summaries*.

The differences between the Hawke's Bay Group forests impacting on the projected stumpages are found in projected recoverable volume and log type, logging, roading and cartage costs.

Esk Valley has the highest projected stumpage mainly due to the highest recoverable yield less cartage required as closer to the Port and local Mills.

a) Projected Recoverable Volume and Log Types

Forest Name	Recoverable Volume (m3/ha)
Esk Valley Forest Investment	877
Glenross Forest Investment	795
Hampton Forest Investment	786

Esk Valley Forest has the highest recoverable yield at 877 m3 per hectares compared to 795 m3 to 786 m3 for the other 2 forests.

b) Logging Costs

Forest Name	Logging Cost
Esk Valley Forest Investment	$43.74
Glenross Forest Investment	$39.95
Hampton Forest Investment	$42.81

The logging costs for the three forests range from $40 to $44. This reflects the terrain – Esk Valley Forest is on steeper terrain and having the highest proportion of more expensive hauler-based logging.

c) Roading Costs (including processing areas crossings, entranceways and maintenance)

Forest Name	Roading Cost	Cost per m3
Esk Valley Forest Investment	4,406,095	$10.07
Glenross Forest Investment	1,539,141	$8.55
Hampton Forest Investment	3,155,681	$9.75

Roading costs is related to terrain with the steepest forests having to spend more to extract the logs.

d) Cartage Costs

Forest Name	Cartage Cost
Esk Valley Forest Investment	$17.66
Glenross Forest Investment	$25.12
Hampton Forest Investment	$24.83

The cartage cost for Glenross and Hampton are more than Esk Valley as these forests are further away from the Port and local Mills.

Appendix 1 – Notes on Harvest Share Methodology

Calculation of each MIS's Equitable Share of Collective Harvest

Overview of Collective Harvest Share Calculation

The underlying principle behind sharing the total revenue from collective harvest is that each MIS is better off receiving a percentage share of the total revenue from the collective harvest of the forests owned by the multiple MIS in the joint venture than 100% of the revenue from harvest of their forest. A sharing methodology is required, and the methodology used is to calculate each MIS's forest crop value at the same date using the same assumptions, and to input the calculated figures into the following formula –

Percentage Shares =	**The percentage of each MIS forest crop value to the total of the forest crop values for all MISs in the joint venture**

Worked example of formula –

MIS Name	Forest Crop Value	Calculation of % Share	Calculated % Share of Collective Harvest
MIS 1	$10.5 million	$10.5/$43.0	24.42%
MIS 2	$15.0 Million	$15.0/$43.0	34.88%
MIS 3	$17.5 million	$17.5/$43.0	40.70%
Total Forest Crop Value	**$43.0 million**		**100.00%**

Forest Crop Value

The benefit of using forest crop value is because the methodology is –

- Prescribed by International Accounting Standard IAS 41, the accounting standard for valuation of biological assets
- Complies with the New Zealand Institute of Forestry valuation standard

The calculation uses a subset of each MIS's projected Cashflow.

Given the application of the calculated value, a valid question is *Does IAS 41 result in a logical value of a forest crop, especially for comparison purposes with other forest crops?* As the name expresses, international accounting standards apply internationally and are arrived at via a consultation process. Sometimes these processes can produce a less than optimal result in specific circumstances.

Calculation, Checking and Reporting Shares to Investors

Forest Enterprises prepares the forestry and other inputs, enters these into each MIS's Cashflow, and calculates the resulting shares for each MIS in the joint venture. The assumptions for the forestry inputs are reviewed by the Forestry Auditor (Forme Consulting Group Limited).

Forest Enterprises prepares a report to Investors in each MIS setting out the relevant forestry assumptions, the calculated forest crop values, plus resulting calculated shares of the collective harvest revenue. Supporting this report are the review letters received by the Supervisor from the Forestry auditor.

The key measure against which the calculated harvest shares is reported is comparison with the percentage of net stocked areas of each MIS in the joint venture. This is because, all other factors being equal, the percentage allocation of harvest to each MIS would be the same percentage as the net stocked area. The differences in the calculated percentage shares is therefore explained and rationalised with reference to the actual hard data relating to valid actual differences between each participant forest in the joint venture.

Appendix 2 – Projected Stumpage Summaries

Esk Valley Forest Investment

Volume Harvested	m3	TRV m3/ha	Percentage	Price at PoS ($/m3)	Total Production Costs ($/m3)	Log & Load ($/m3)	Harvest Roading ($/m3)	Harvest Mgt&Mktg ($/m3)	Harvest Contingency & Levy ($/m3)	Cartage Costs ($/m3)	Net Return ($/m3)	Contribution to Stumpage ($/ha)	Contribution to Stumpage (%)
P40	1,547	3	0%	179.00	- 80.39	- 43.74	- 10.07	- 4.70	- 2.83	- 19.05	98.61	306	1%
P35	93,538	188	21%	175.55	- 78.47	- 43.74	- 10.07	- 4.70	- 2.83	- 17.13	97.08	18,206	41%
P30	8,400	17	2%	148.25	- 80.39	- 43.74	- 10.07	- 4.70	- 2.83	- 19.05	67.86	1,143	3%
A	70,025	140	16%	130.85	- 80.39	- 43.74	- 10.07	- 4.70	- 2.83	- 19.05	50.46	7,084	16%
K	3,587	7	1%	115.45	- 80.39	- 43.74	- 10.07	- 4.70	- 2.83	- 19.05	35.06	252	1%
KI	20,138	40	5%	107.85	- 80.39	- 43.74	- 10.07	- 4.70	- 2.83	- 19.05	27.46	1,109	3%
KIS	17,207	34	4%	92.80	- 80.39	- 43.74	- 10.07	- 4.70	- 2.83	- 19.05	12.41	428	1%
S30	151,789	304	35%	119.90	- 78.47	- 43.74	- 10.07	- 4.70	- 2.83	- 17.13	41.43	12,608	29%
S20	65,397	131	15%	104.90	- 78.47	- 43.74	- 10.07	- 4.70	- 2.83	- 17.13	26.43	3,465	8%
Pulp	5,735	11	1%	31.00	- 78.47	- 43.74	- 10.07	- 4.70	- 2.83	- 17.13	- 47.47	- 546	-1%
Total	**437,365**	**877**	**100%**	**129.24**	**- 79.00**	**- 43.74**	**- 10.07**	**- 4.70**	**- 2.83**	**- 17.66**	**50.24**	**44,055**	**100%**

Glenross Forest Investment

Volume Harvested	m3	TRV m3/ha	Percentage	Price at PoS ($/m3)	Total Production Costs ($/m3)	Log & Load ($/m3)	Harvest Roading ($/m3)	Harvest Mgt&Mktg ($/m3)	Harvest Contingency & Levy ($/m3)	Cartage Costs ($/m3)	Net Return ($/m3)	Contribution to Stumpage ($/ha)	Contribution to Stumpage (%)
P40	1,260	6	1%	179.00	-79.88	-39.95	-8.55	-4.61	-2.83	-23.93	99.12	552	1%
P35	44,574	197	25%	175.55	-81.69	-39.95	-8.55	-4.61	-2.83	-25.74	93.86	18,478	48%
P30	1,651	7	1%	148.25	-79.88	-39.95	-8.55	-4.61	-2.83	-23.93	68.37	499	1%
A	36,599	162	20%	130.85	-79.88	-39.95	-8.55	-4.61	-2.83	-23.93	50.97	8,239	21%
K	1,159	5	1%	115.45	-79.88	-39.95	-8.55	-4.61	-2.83	-23.93	35.57	182	0%
KI	14,495	64	8%	107.85	-79.88	-39.95	-8.55	-4.61	-2.83	-23.93	27.97	1,791	5%
KIS	6,183	27	3%	92.80	-79.88	-39.95	-8.55	-4.61	-2.83	-23.93	12.92	353	1%
S30	48,760	215	27%	119.90	-81.69	-39.95	-8.55	-4.61	-2.83	-25.74	38.21	8,229	21%
S20	17,649	78	10%	104.90	-81.69	-39.95	-8.55	-4.61	-2.83	-25.74	23.21	1,809	5%
DOM_PULP	7,583	33	4%	31.00	-81.69	-39.95	-8.55	-4.61	-2.83	-25.74	-50.69	- 1,697	-4%
Total	**179,914**	**795**	**100%**	**129.44**	**- 81.07**	**- 39.95**	**- 8.55**	**- 4.61**	**- 2.83**	**- 25.12**	**48.37**	**38,434**	**100%**

Hampton Forest Investment

Volume Harvested	m3	TRV m3/ha	Percentage	Price at PoS ($/m3)	Total Production Costs ($/m3)	Log & Load ($/m3)	Harvest Roading ($/m3)	Harvest Mgt&Mktg ($/m3)	Harvest Contingency & Levy ($/m3)	Cartage Costs ($/m3)	Net Return ($/m3)	Contribution to Stumpage ($/ha)	Contribution to Stumpage (%)
P40	1,751	4	1%	179.00	- 83.58	- 42.81	- 9.75	- 4.52	- 2.83	- 23.68	95.42	406	1%
P35	74,094	180	23%	175.55	- 85.38	- 42.81	- 9.75	- 4.52	- 2.83	- 25.48	90.17	16,234	47%
P30	4,978	12	2%	148.25	- 83.58	- 42.81	- 9.75	- 4.52	- 2.83	- 23.68	64.67	782	2%
A	69,944	170	22%	130.85	- 83.58	- 42.81	- 9.75	- 4.52	- 2.83	- 23.68	47.27	8,033	23%
K	2,385	6	1%	115.45	- 83.58	- 42.81	- 9.75	- 4.52	- 2.83	- 23.68	31.87	185	1%
KI	25,346	62	8%	107.85	- 83.58	- 42.81	- 9.75	- 4.52	- 2.83	- 23.68	24.27	1,494	4%
KIS	13,317	32	4%	92.80	- 83.58	- 42.81	- 9.75	- 4.52	- 2.83	- 23.68	9.22	298	1%
S30	83,065	202	26%	119.90	- 85.38	- 42.81	- 9.75	- 4.52	- 2.83	- 25.48	34.52	6,967	20%
S20	34,903	85	11%	104.90	- 85.38	- 42.81	- 9.75	- 4.52	- 2.83	- 25.48	19.52	1,655	5%
Pulp	13,842	34	4%	31.00	- 85.38	- 42.81	- 9.75	- 4.52	- 2.83	- 25.48	- 54.38	- 1,829	-5%
Total	**323,624**	**786**	**100%**	**128.25**	**- 84.73**	**- 42.81**	**- 9.75**	**- 4.52**	**- 2.83**	**- 24.83**	**43.52**	**34,226**	**100%**