

# Log Market Analysis

As at 15 December 2019



Photo 1: Hauling logs to Landing 9 in Pinedale Forest (Wairarapa).

The content of this Log Market Analysis is produced monthly as part of a suite of documents that comprise the regular reporting to forest owners during harvest. This standalone document is made available to other forest owners approaching harvest to keep them informed on market conditions.

We have included log price series separately for Wairarapa and Gisborne forests, as the price series differ for reasons including different customers, log specifications and locations.

Forest Enterprises (FE) is currently harvesting approximately 650,000 tonnes of logs per annum for Wairarapa and Gisborne forest owners. Most of these owners are Investors in forestry investments our company markets and manages, however some harvesting is undertaken for other forest owners.

Overall, harvest volume is increasing materially year on year.

## IMPORTANT

Every effort has been made to provide current accurate information in this document, which is for information purposes only. Any opinions and views expressed are those currently held by Forest Enterprises, however the reader accepts that where they are opinions and views in respect of future prices, they may subsequently be proven incorrect. The nature of the international log market is that of price fluctuations, and these fluctuations can be material, and material changes can arise due to factors not previously able to be foreseen.



## Overview

Every year, at about this time, Christmas comes as if by surprise and interrupts our careful plans. This year is no exception. We are deep into the planning required when you stop logging, and stop supplying logs to sawmills and ships, hoping to return in an orderly fashion later.

We are busier than usual this year in the lead-up to the holidays, as Forest Enterprises began managing a large forest estate for an Australian fund manager client from 1 December. We have hired several additional staff for this contract, so we are in the early stages of inductions, training and embedding new processes. Forest Enterprises and our investors will benefit from the additional business scale and from the contributions of the highly qualified and experienced new staff now on board.

We do all look forward to a bit of a rest over the Christmas period, and hope you get some time with family and friends over the break.



Photo 2: Drone over a harvest site in Tivdale Forest (Wairarapa), looking south towards Landing 25.



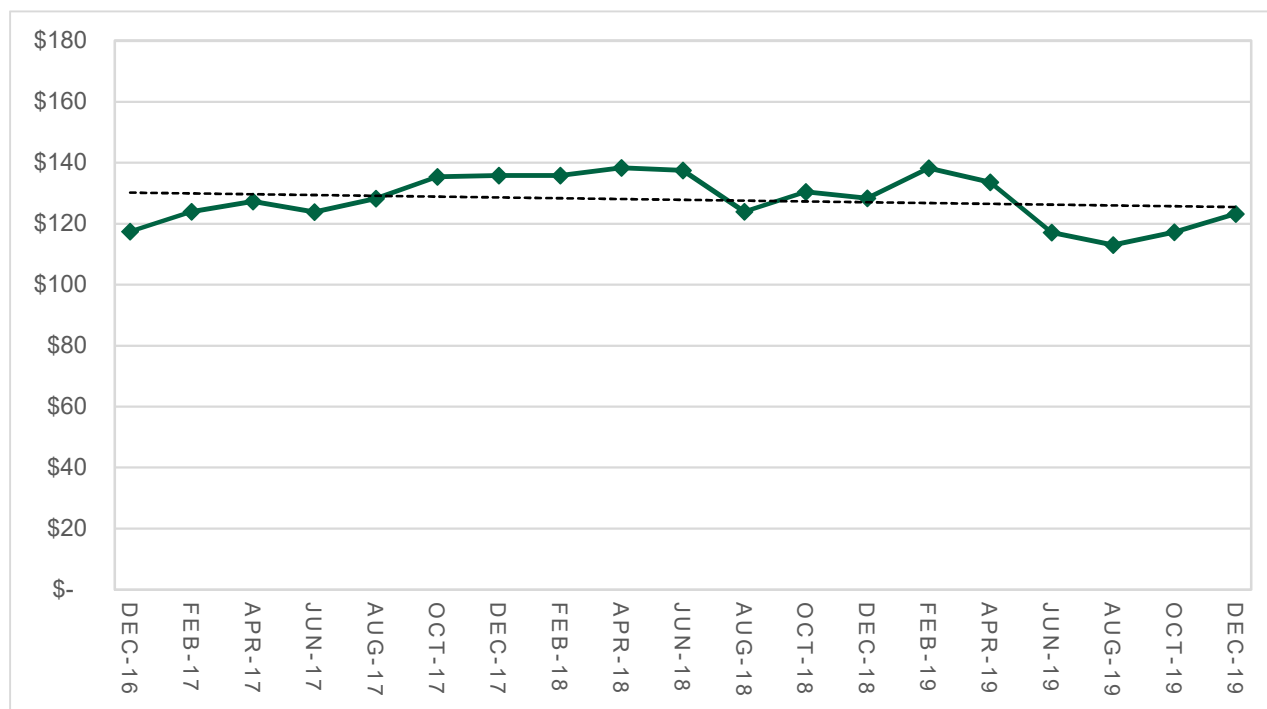
Photo 3: This year, we began supplying pruned logs from Gisborne to Pan Pac in Napier, an important domestic customer.



## Wairarapa Log Prices Per Tonne

| Grade   | Forest Enterprises<br>Nov-19 | Forest Enterprises<br>36 Month Average | Current vs<br>36 Month Average | Percentage of<br>the 36m Average |
|---|------------------------------|--|--------------------------------|----------------------------------|
| Export P40  | \$176.30                     | \$183.15                               | (\$6.85)                       | 96%                              |
| Export P30  | \$148.55                     | \$145.70                               | \$2.85                         | 102%                             |
| Export A  | \$125.85                     | \$135.15                               | (\$9.30)                       | 93%                              |
| Export K  | \$112.00                     | \$120.00                               | (\$8.00)                       | 93%                              |
| Export KI   | \$101.00                     | \$112.85                               | (\$11.85)                      | 89%                              |
| Export Pulp   | \$87.80                      | \$97.75                                | (\$9.95)                       | 90%                              |
| Domestic P35  | \$170.00                     | \$175.80                               | (\$5.80)                       | 97%                              |
| Domestic S30  | \$117.00                     | \$120.90                               | (\$3.90)                       | 97%                              |
| Domestic S20  | \$102.00                     | \$105.90                               | (\$3.90)                       | 96%                              |
| Domestic Pulp   | \$31.00                      | \$31.00                                | \$0.00                         | 100%                             |
| Export sales units are volumetric (JAS) while domestic sales units are paid per tonne. The Export JAS prices have been converted to tonnes. Refer to page 5 for more detail on the JAS to Tonne Conversion.   |                              |  |                                |                                  |
| Index Log Price   | \$121.85                     | \$128.55                               | (\$6.70)                       | 95%                              |
| Index Log Price is calculated using inventory measurements from our Wairarapa forest crops and establishing an average log grade recovery for our typical Wairarapa Forest. Applying these estimates to our long run prices per grade has derived an Index Log Price. This index price helps to estimate the average logs sales predicted for a typical forest. |                              |  |                                |                                  |

## Index Log Price for our typical Wairarapa Forests

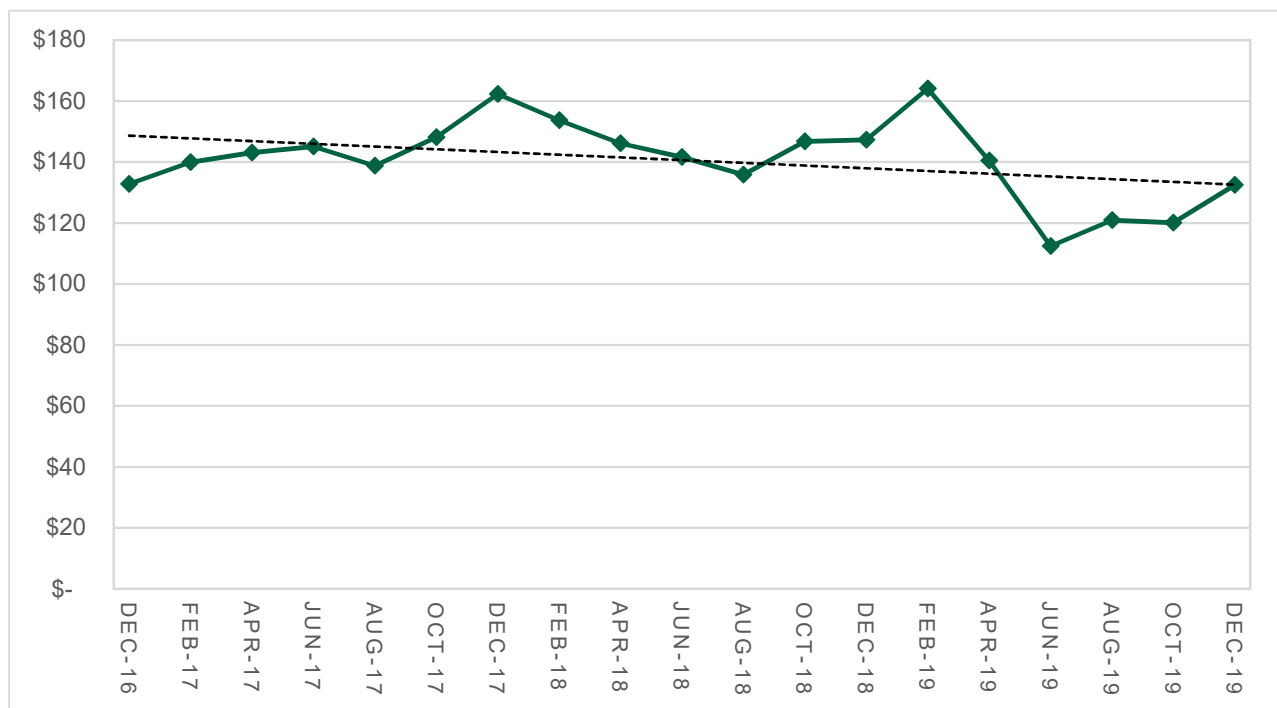




## Gisborne Log Prices Per Tonne

| Grade  | Forest Enterprises<br>Nov-19 | Forest Enterprises<br>36 Month Average | Current vs<br>36 Month Average | Percentage of<br>the 36m Average |
|--|------------------------------|--|--------------------------------|----------------------------------|
| Export P40   | \$175.45                     | \$180.60                               | (\$5.15)                       | 97%                              |
| Export P30   | \$138.75                     | \$148.00                               | (\$9.25)                       | 94%                              |
| Export A   | \$131.40                     | \$139.75                               | (\$8.35)                       | 94%                              |
| Export K   | \$115.05                     | \$124.95                               | (\$9.90)                       | 92%                              |
| Export KI  | \$110.45                     | \$114.95                               | (\$4.50)                       | 96%                              |
| Export Pulp  | \$93.05                      | \$102.55                               | (\$9.50)                       | 91%                              |
| Domestic P35   | \$175.00                     | \$179.45                               | (\$4.45)                       | 98%                              |
| Export sales units are volumetric (JAS) while domestic sales units are paid per tonne. The Export JAS prices have been converted to tonnes. Refer to page 5 for more detail on the JAS to Tonne Conversion.  |                              |  |                                |                                  |
| Index Log Price  | \$133.65                     | \$141.45                               | (\$7.80)                       | 94%                              |
| Index Log Price is calculated using inventory measurements from our Gisborne forest crops and establishing an average log grade recovery for our typical Wairarapa Forest. Applying these estimates to our long run prices per grade has derived an Index Log Price. This index price helps to estimate the average logs sales predicted for a typical forest. |                              |  |                                |                                  |

## Index Log Price for our typical Gisborne Forests



Investors will notice that the Gisborne price series only includes domestic price for Pruned 35 due to log customers. As of July 2019, we have been supplying three domestic sawmills with pruned logs from our Gisborne Forests.



# Factors Influencing Current Log Price

Key:



More Benefit to the Investor



Less Benefit to the Investor



Neutral

## Price, Costs and Logistics



### Foreign Exchange (Forex)

Export logs are priced in USD. FE's rate in November was forecast at 0.6450. We last shipped at a rate of 0.6535 which is less favourable.

FE takes no forward position or hedge in currency trading. Hedging imposes transaction costs without giving certainty of improved outcomes.



### Shipping

Ship owners had high hopes of rate rises but hopes are dashed as bulk demand remains low. The expected premium on pricing for the cost of new low sulphur fuel has not materialised with shippers swallowing the cost of the new fuels.



### JAS to Tonne Conversion

JAS-to-tonne conversion rates are improving as expected as we move into the dryer season, increasing from an average of 100.2% to 103.1% across all export grades for November 2019. This is a good result and improves returns to growers.

Export logs are sold in Japanese Agricultural Standard cubic metres (JAS). JAS is a measure of useable log volume rather than weight. Payments to most contractors are made based on weight, which is appropriate for handling heavy material. This means the return to the forest owner is affected strongly by the conversion of weight to volume in the logs.

Conversion has seasonal trends and varies between log grades, length and log quality. Accounting for conversion is necessary to report comparable values from different sales options. Our convention is to report all prices converted to the 'per tonne basis', which would appear different if compared with a per cubic metre (JAS) series. Hence why our harvest reports show monthly JAS/tonne conversion per forest.



### Log Price, Export CFR

CFR (Cost and Freight) is the price in USD paid by the end user/buyer.

China Supply rising and off take falling, log stocks rising putting pressure on price.

South Korea Low price and demand. Flat.

India Euro spruce, South African and Uruguay lumber appearing in India as demand grows.

Japan Big growth in domestic logging, Japan has extensive managed forests.

## Log Demand



### Export Log Inventory in Market

China Inventory of logs in China is a leading supply/price indicator. Inventory levels in China continue to decline to about 3.5 million JAS. Daily sales fell to about 55,000 JAS per day. Days of stock is inventory divided by usage and has risen from 51 to 64 recently; higher than in November. The speed that logs turn to lumber and lumber turns to cash drives market sentiment. Euro spruce lumber represents additional stock in inventory above the conventional metrics.

South Korea Flat.

India Busy.

Japan Growth in domestic supply.



### Pruned Log Grades

No change, plenty of demand for pruned logs.



### NZ Domestic

Looks like a slow year for woodlot production so mills need to rely on the larger and more organised forests.





## Housing and Business

Housing drives panel, lumber and furniture sales and therefore log demand. Housing timber use has two primary markets: new house starts, or remodel and renovate. These two uses have different cycles based on relative consumer optimism. Try getting a tradesman to your house for an start this summer if you don't think the labour market is tight!



## Domestic Construction

Busy!

## Log Supply

### NZ

It's busy, but not as busy as last year. I don't expect a big year in the woodlot business.

### Australia

Big problems with fire.

### Europe and Russia

The European beetle damage is a big problem but it's hard for volume to grow above the current level given fixed rail capacity to China.

### Pacific Northwest (PNW)

Expected decline of 5Million cubic metres this year as US housing soaks up logs and lumber, with diminished supply from beetle damage and fires.

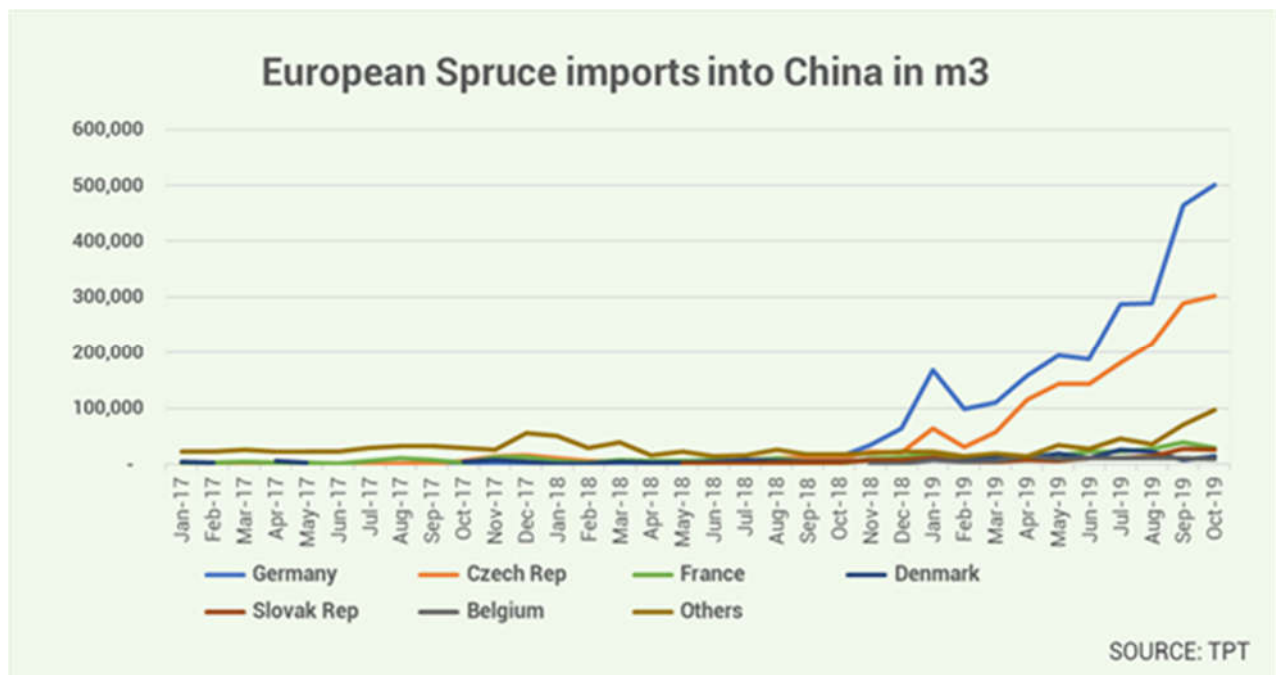
### Other

Chilean log exports falling but lumber rising.

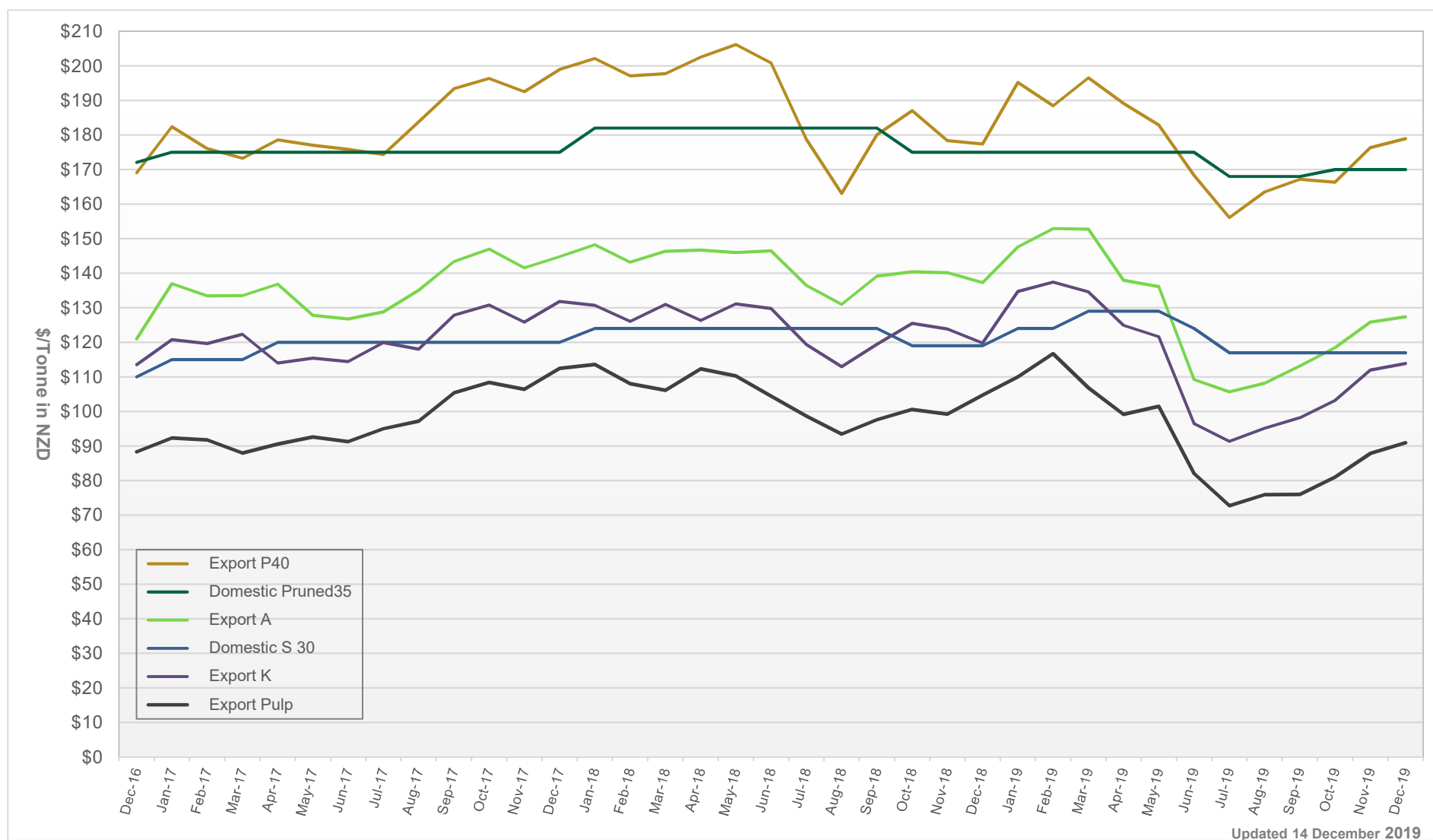
## Point of Interest

This graph shows the supply of spruce from Europe into China, with a marked increase over the last year.

Graph supplied by TPT Forests, our log export partner out of Port of Wellington.



## Lower North Island Log Price Graph per Tonne



**Log Price Graph:** Tracks the key log prices for a 37-month period. The first 36 months are the months which comprise the average referred to under Log Prices per Tonne above. The 37<sup>th</sup> month shows the indicative prices scheduled for the current month. Export sales units are volumetric (JAS) while domestic sales units are paid per tonne. The Export JAS prices have been converted to tonnes.





# NGATAWHAI GROUP FOREST INVESTMENT

We are proud to provide this opportunity to invest in a sustainable, productive future for New Zealand.

The Ngatawhai Group Forest in Wairarapa is 627 stocked hectares of outstanding pine forestry, as well as 200+ hectares of permanent native bush and wetland.

This is existing forest land Forest Enterprises managed over three decades, through to the productive harvest of the first rotation crop.

Ready planted for its second crop rotation, this forest is now available for the next generation of investors.

## Investment Overview:

- Initial Investment: Minimum initial application cost \$9,726 for 200 shares, plus affordable annual contributions
- Additional shares may be purchased at \$48.63 per share
- Projected annual contributions: Calls are projected to average around \$1,011\* per year for 8 years, then drop to an average of around \$291\* per year until harvest commences in 2038. The first call is 30 June 2020.
- Projected total investment: \$20,797\*
- Projected gross return: \$129,060\*
- Projected gross IRR: 9.33%\*
- Harvest period (income): 2038-2046
- Production forest 627 net stocked hectares - 2.09 hectares per 200 shares

\* Per 200 shares, based on 2% per annum inflation and Forest Enterprises' 36-month log price series to 30 June 2019. Refer Cashflow on pages 28-29 and other financial information in section 6 of the Product Disclosure Statement from page 25.

**To learn more and for a copy of the product disclosure statement, contact Nikki Coulmann:**

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**[forestenterprises.co.nz/new-investments](https://forestenterprises.co.nz/new-investments)**

Ngatawhai Group Forest Investment is a managed investment scheme structured as a limited partnership, offered by Forest Enterprises Growth Limited, issued and managed by Forest Enterprises Limited.

Forest Enterprises is the business name of Forest Enterprises Growth Limited and its subsidiary Forest Enterprises Limited. Forest Enterprises Limited is licensed to manage Managed Investment Schemes (excluding managed funds) which are primarily invested in forestry assets.