



COMPARATIVE MARKET ANALYSIS FOR HARCOURTS

Hawkeswood, Cheviot

June 2020

ForestX
New Zealand

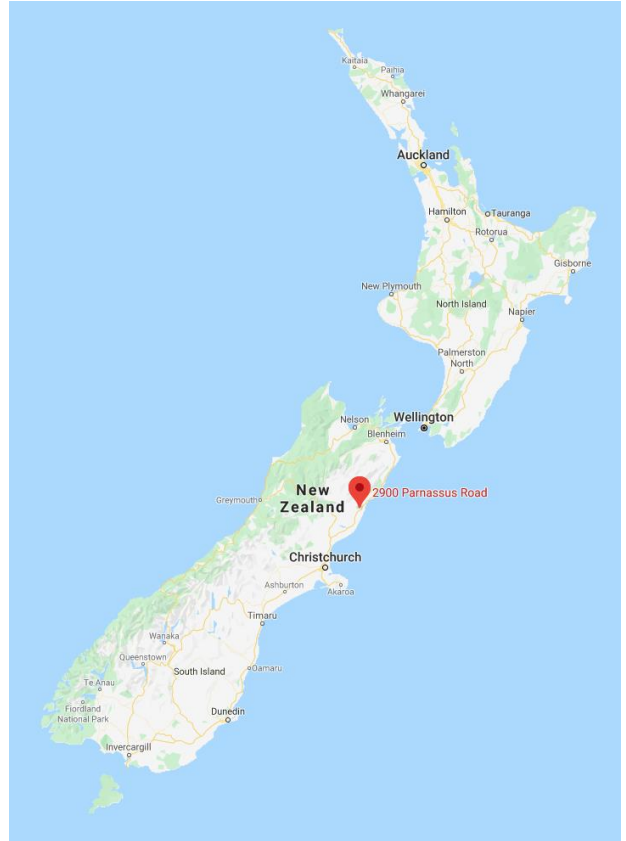
Overview

Location

Hawkeswood, 27km North of Cheviot

Area suitable for forestry

658ha of which 402.2ha estimated as being suitable for forestry.



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Description

Location

2900 Parnassus Road, Hawkeswood

Total area

658ha of which 402.2ha estimated as being suitable for forestry

Financial interest

Sale of land for forestry

Title reference

554482

Council

Hurunui District Council

Zoning

Rural 1A. The District Plan requires set-backs for planting.

Land use capability

6,7, with small patches of 3

Slope

Mostly steep

Access to site

Parnassus Road

On-site access

Farm tracks

Distance to port

152 km to Lyttleton

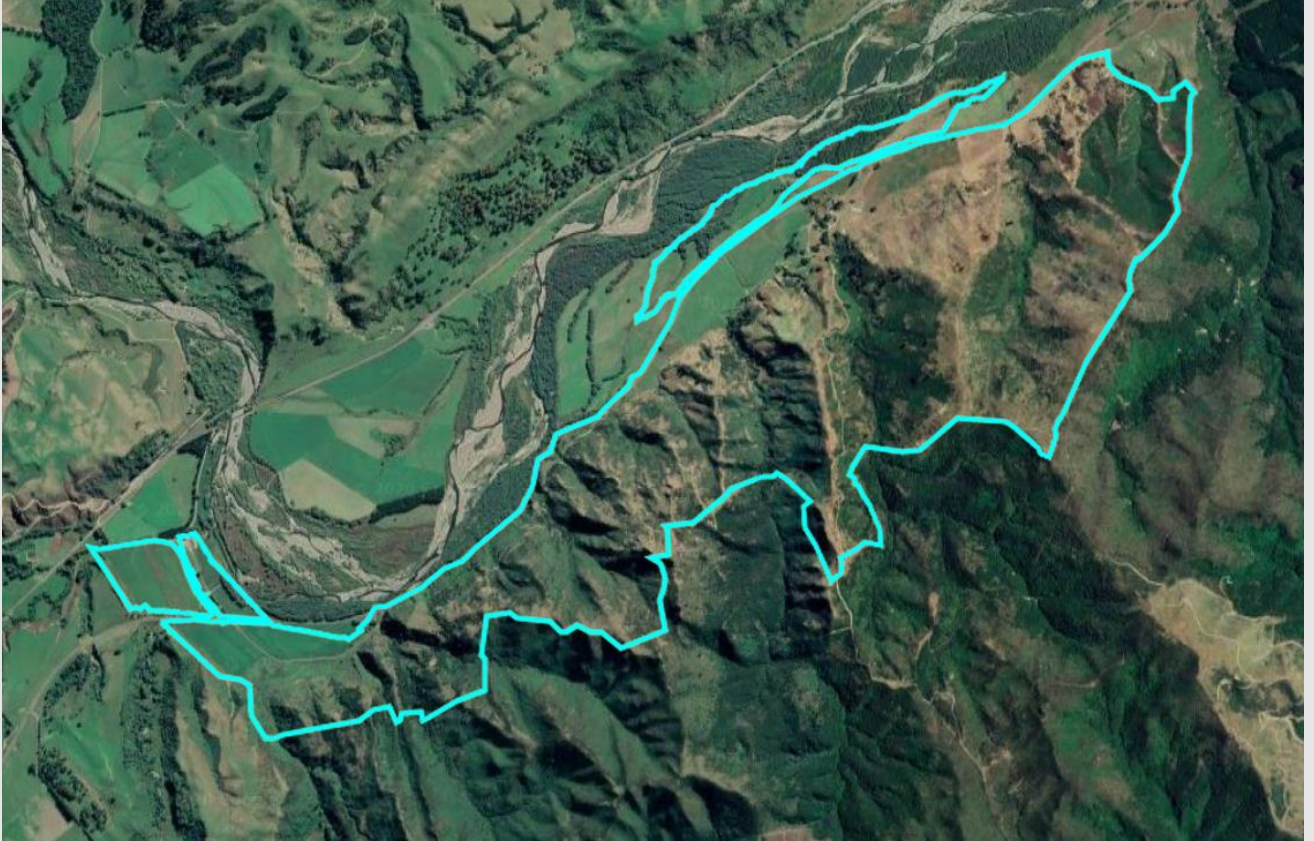
Distance to nearest mill

119 km to Rangiora

1990 use

Mostly grassland with small patches of forest

Property boundaries



Carbon summary

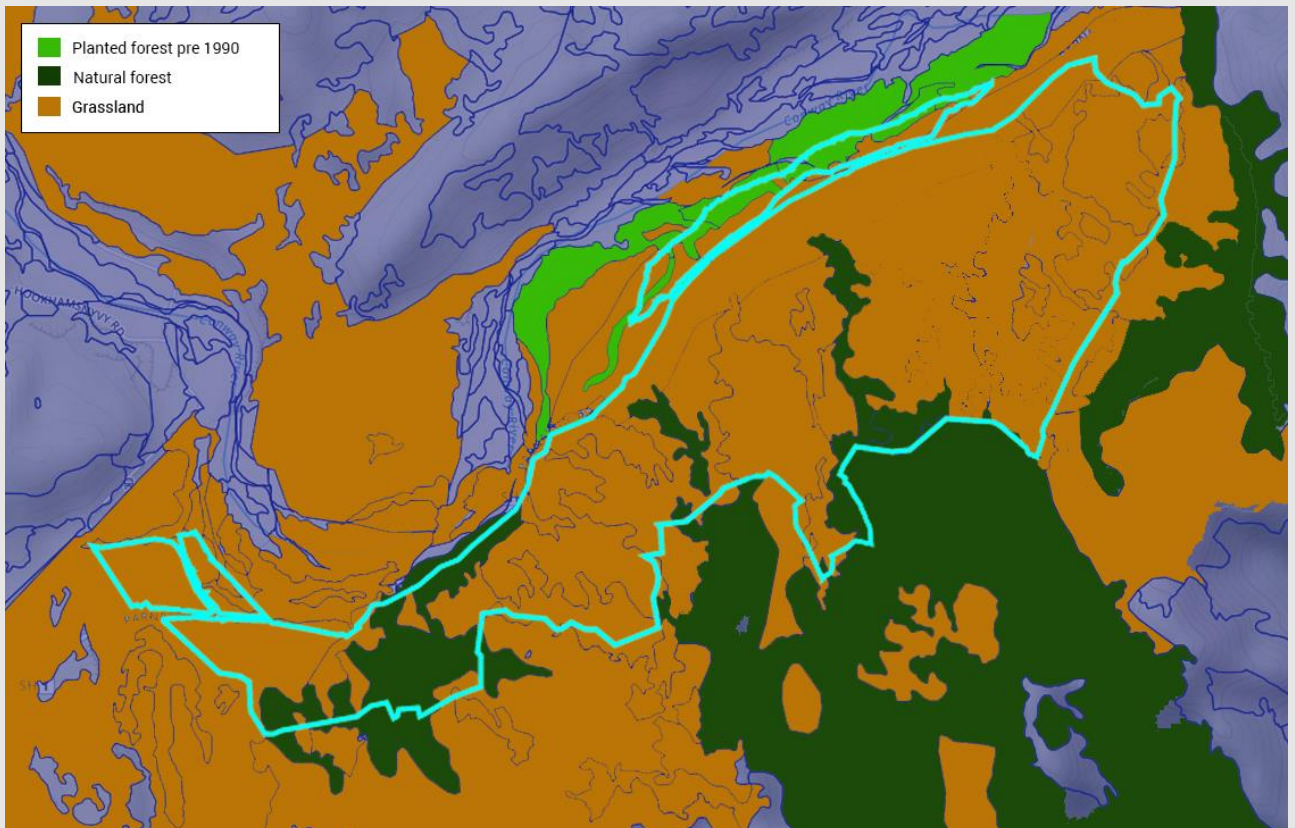
Commentary

Mostly post 1989 grassland with patches of broom. We do not consider that broom is a forest species, therefore the broom patches should also be considered post 1989 land. We have asked the Ministry of Primary Industries to confirm that this is the case and they are currently checking their records to confirm that they have not treated broom as a forest species in the past.

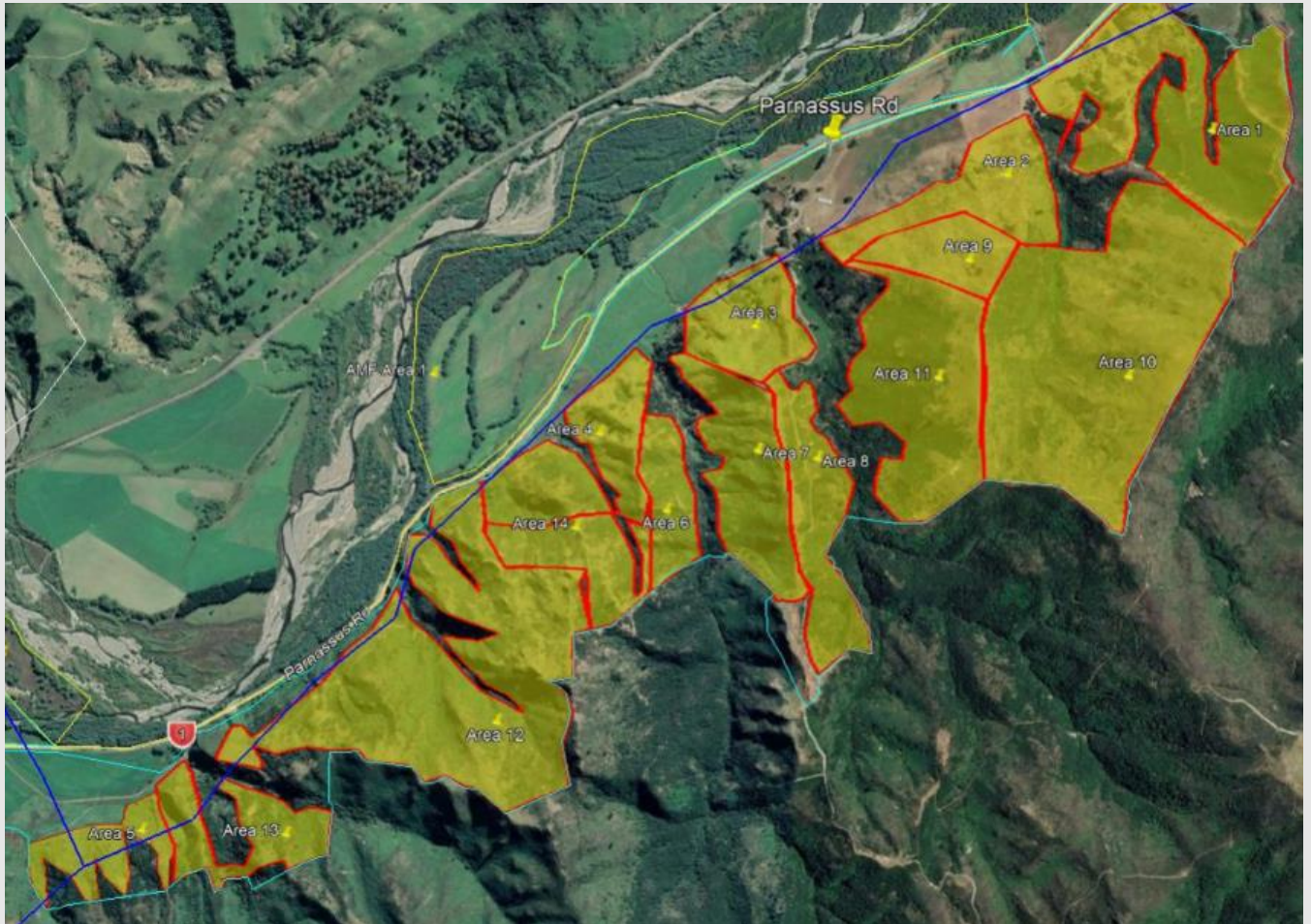
Aerial photo December 1989



Ministry for the Environment public land use map 1990



Forestry land estimates



Note powerlines in blue, requiring set-backs

Forestry land estimates

Area	Stand description table	Pre 1990 non forest land that is plantable
1	Lower front slope	50.0
2	Lower front slope	19.7
3	Lower front slope	17.4
4	Lower front slope	24.2
5	Lower front slope	9.8
6	Short middle slope	11.0
7	Short middle slope	24.0
8	Short middle slope	21.6
9	Short middle slope	12.0
13	Short middle slope	15.1
10	Longer complex slope	75.9
11	Longer complex slope	36.4
12	Longer complex slope	71.3
14	Longer complex slope	<u>13.9</u>
	Total plantable area	402.2
	Pre 90 forest land, bush and gulleys	100.8
	Road side flat pasture block as lease	<u>155.0</u>
	Total property	658.0
	AMF (usque ad medium filum aquae) river side	99.8

The total title area is 658ha. We assess land that is carbon compliant, clear of powerlines and suitable for planting to be 402.2ha.

Technical indicators

Rainfall

1,200mm for region, Ferniehurst Station 1949 to 2016 average 1,188mm, Hawkeswood 1931 to 2016 average 1,129mm,

Elevation

~60 to ~380 meters

Wood productivity potentials (300 index)

20 - 26 m³/ha/yr

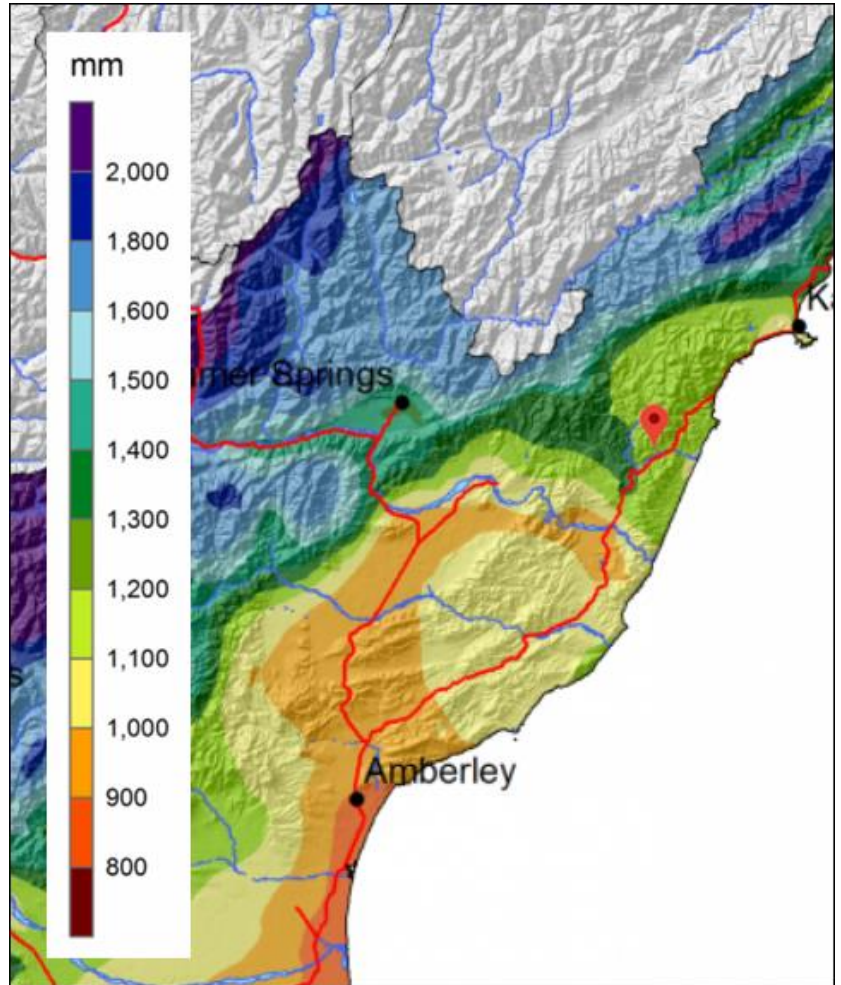
Height productivity potential (site index)

25 - 30 m

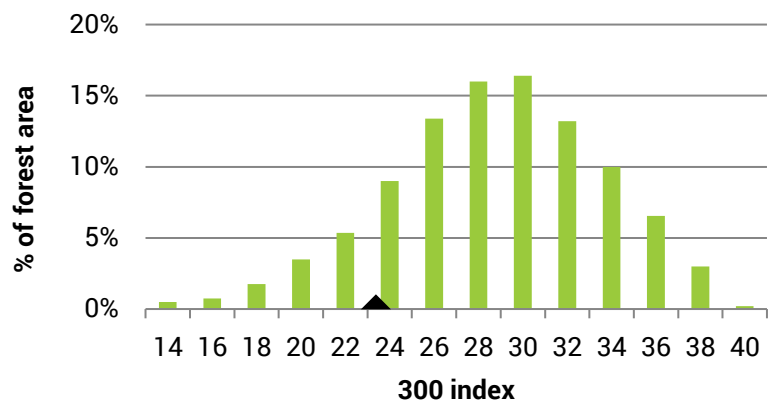
Slope

Steep

Rainfall



Wood volume productivity - All NZ



Graphs give national distribution and position in range for the property

Risk indicators

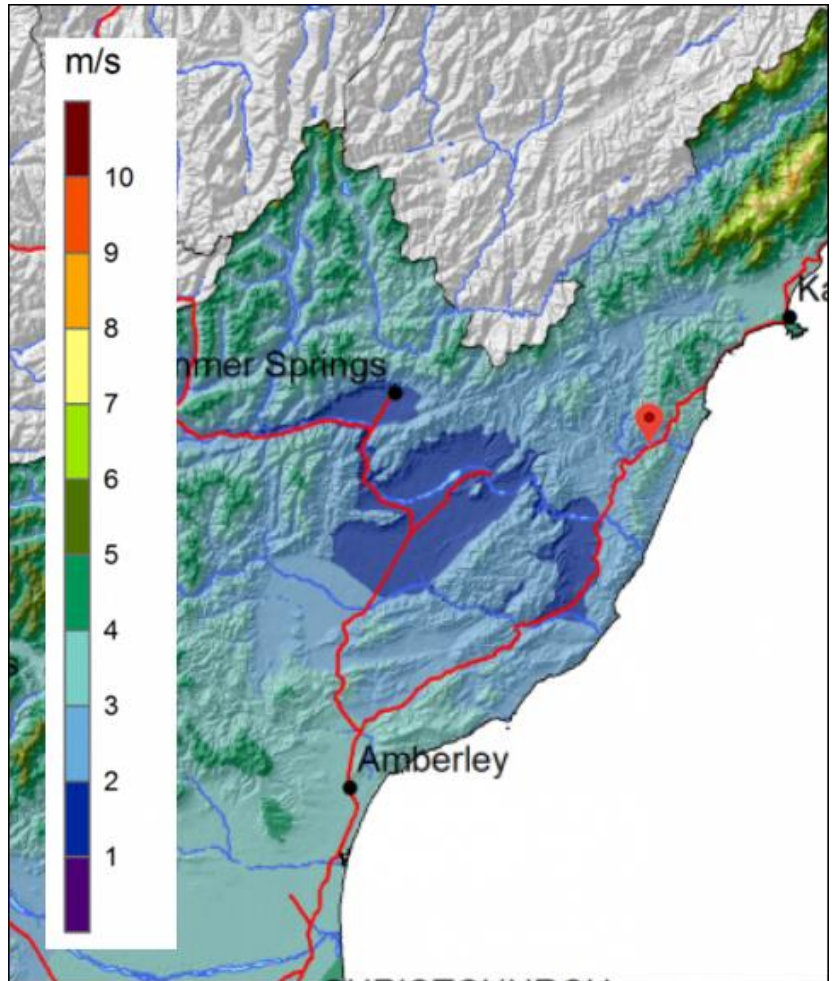
Wind

4 km/hr
(median annual average wind speed)

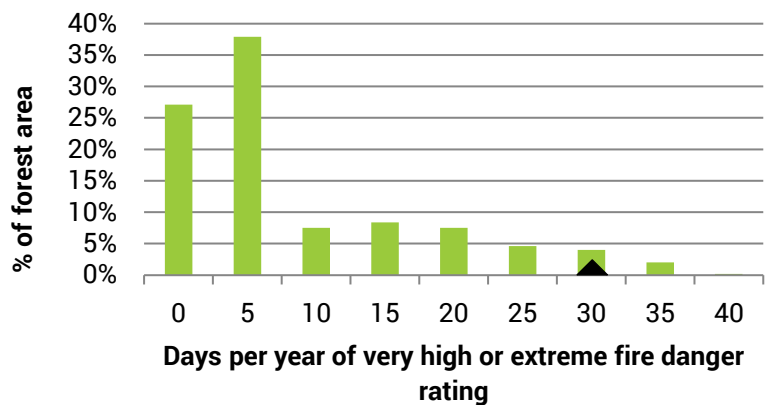
Fire

~30
(the average annual number of days per season of very high or extreme danger rating)

Wind risk



Fire risk - All NZ

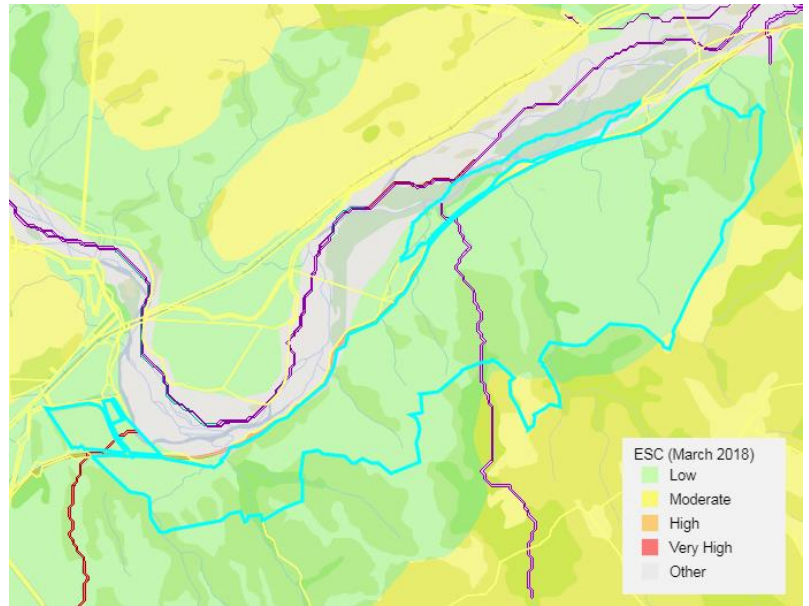


Graphs give national distribution and position in range for the property

Risk indicators

**National environmental
standard for production
forests (NES)**
Low

National environmental standard



Background notes

Land use capability

LUC rating is the ability of each polygon or block to sustain primary production, based on an assessment of the physical factors, climate, the effects of past land use, and the potential for erosion.

Slope

The National Environmental Standard for Production Forests starts 1 May 2018 and may have an impact on harvesting requirements for this forest.

<http://www.mpi.govt.nz/growing-and-harvesting/forestry/national-environmental-standards-for-plantation-forestry/> Detailed slope maps may be available from the local Regional Council Office to better examine slope and erosion risk.

Wood volume productivity potentials

The 300 Index is the average volume increment per ha per year at an age of 30 years standardised on 300 stems/ha for the direct saw log regime.

Height productivity potentials

The Site Index is the average height (m) of the largest diameter 100 stems/ha at age 20 years.

Wind

The Wind Risk is derived by calculating the median extreme wind speed (km/hr) for the forest location. It indicates the location windiness and compares it with the range of values found for forested areas in New Zealand.

Fire

Using the fire danger rating system, this is calculated as the average annual number of days per season of very high or extreme danger rating.

NPV

The net present value of an investment, calculated using a discount rate and series of future payments (negative values) and income (positive values).

Annuity

The NPV is distributed into an annual payment amount based on a rate of return. This amount is indicative of a maximum rental that could be sustained.

IRR

The internal rate of return being the interest rate received for an investment consisting of payments (negative values) and income (positive values) that occur at regular periods.

LEV

Land expectation value is the NPV for multiple forest rotations on an in perpetuity basis. This amount gives an indicative land value based on the land being used for forestry into the future.

Notices

Information sources

This report draws from the following information sources:

Scion, the Crown research agency for forestry

Te Uru Rakau the forestry division of the Ministry of Primary Industries

Wood Processors and Manufacturers Association

Carbon Forest Services

Land Information New Zealand

National Institute of Water and Atmospheric Research

Important notice

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This report does not constitute a forest valuation but it does provide a description of a possible forest resource on this site and the impact of the site and locality on the resource.



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