Carbon investment

Kaikohe

ForestX
New Zealand

Forward sale of carbon

The land owner is looking to enter into a forest right lease with Crown Forestry. Planting is to take place in August 2019. 507 ha is to be planted at the rate of 1,250 stems per ha. The forest is to be thinned but not pruned. Thinning is expected to take place at year 8 bringing the forest down to 475 stems per ha. Scion based tool Forecaster has been used to estimate tonnes of carbon sequested in the first and second rotations. Based on the planned averaging accounting system, to be backdated to 2019 planting, we further estimate free carbon of 595 NZUs in year 15.

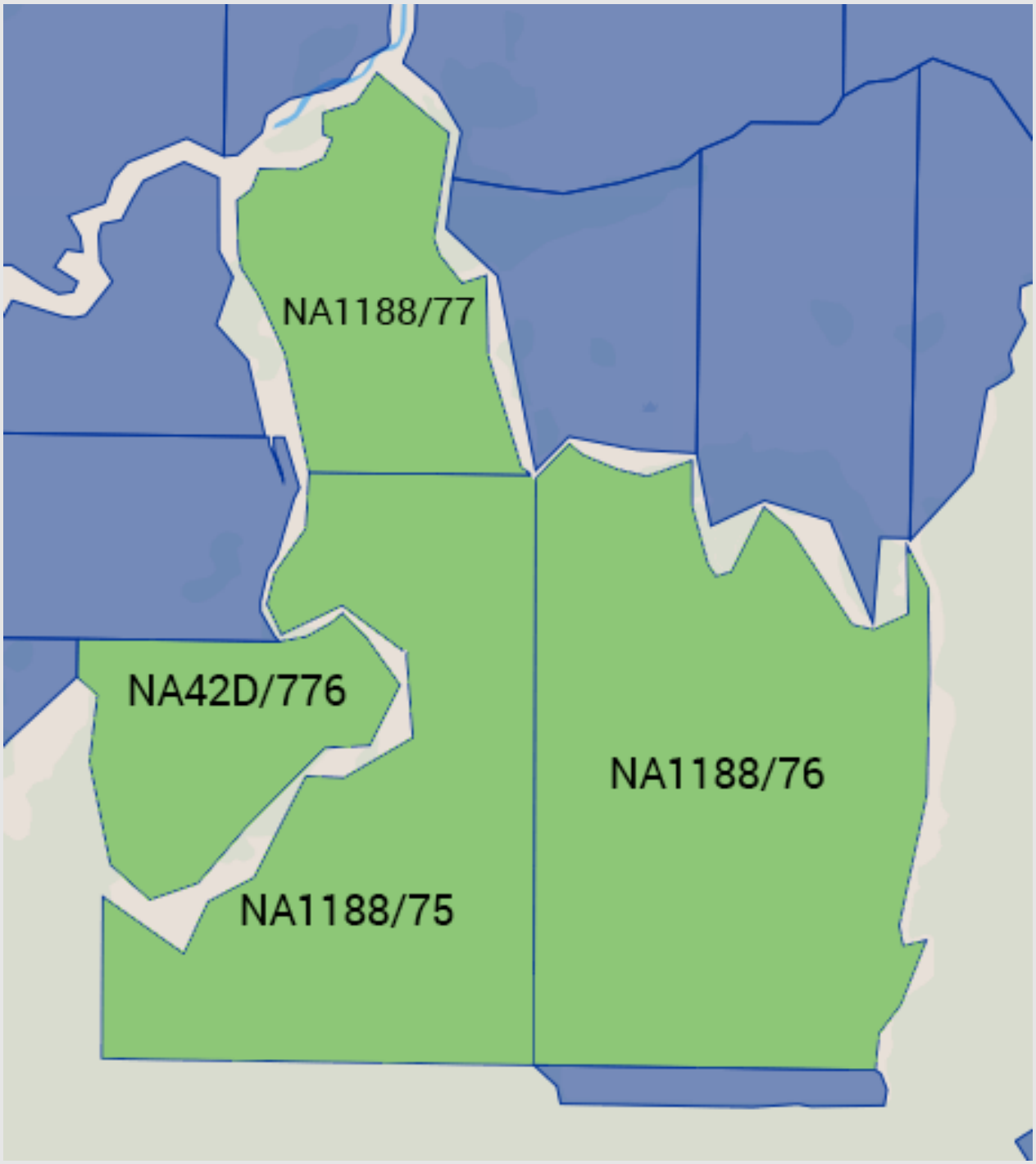
On behalf of the land owner we offer forward sale of credits on signing of the Crown Forestry forest right.

Forward purchase indications are expected to be non-binding and may include multiple bid options. The successful purchaser will be expected to make an unconditional prepayment offer by a specific date otherwise they face being replaced with another party.

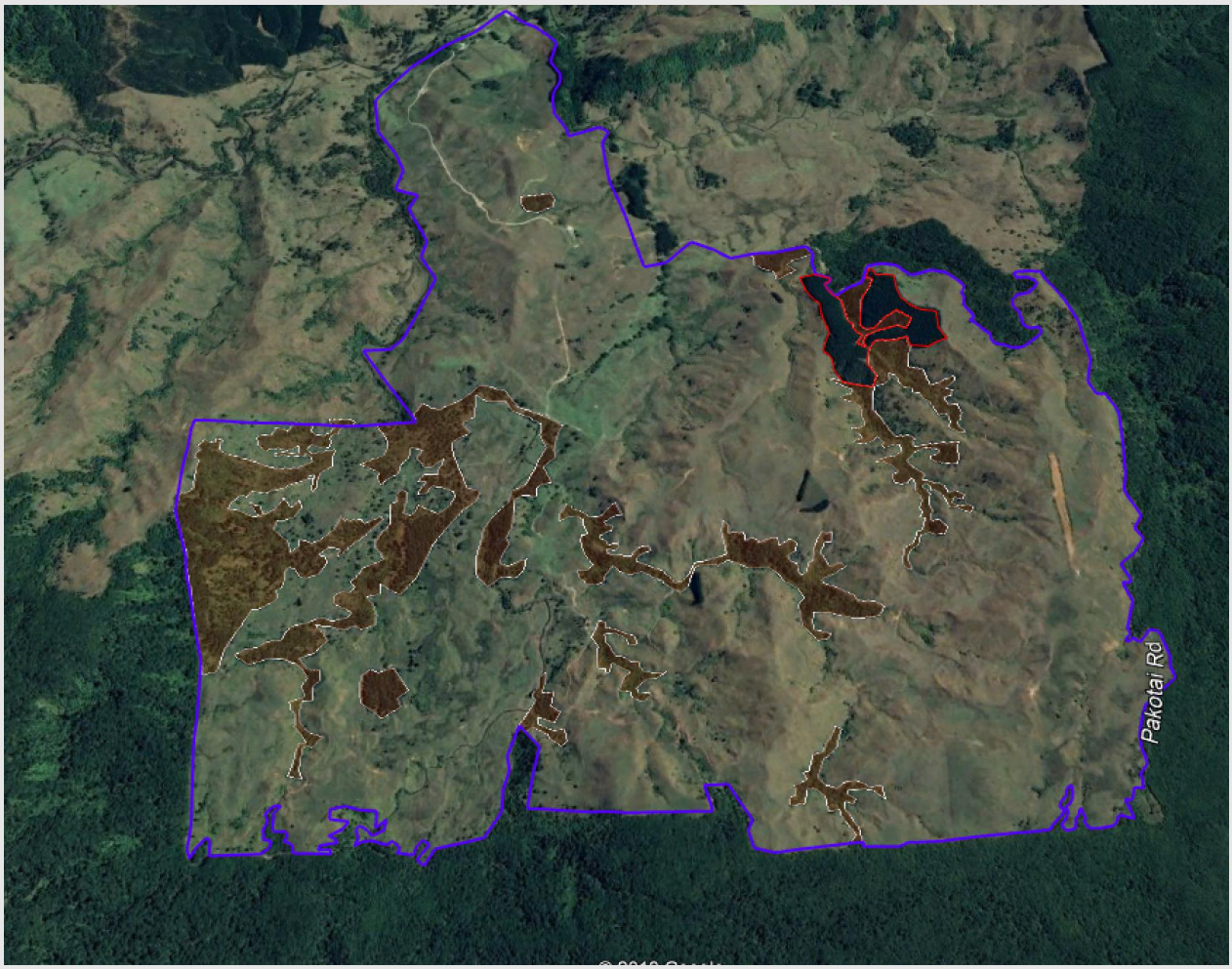
The land owner reserves the right to not accept the highest or any forward purchase indication. Please keep all information in this profile confidential.

Age	DBH	MTH	MH	SPH	BA	VOL	Root Biomass	Grazing	Crown closure	Rotation 1	Rotation 2
1	0.0	1.0	0.9	1188	0.0	0			0%	1	506
2	1.2	2.3	2.1	1187	0.1	2	0		0%	4	436
3	4.4	3.8	3.6	1187	1.8	5	2		0%	10	382
4	8.3	5.5	5.2	1186	6.3	18	9		4%	40	359
5	12.1	7.3	6.8	1185	13.7	44	22		21%	89	364
6	15.7	9.2	8.6	1184	22.9	85	39		45%	160	398
7	18.8	11.1	10.3	1182	32.8	140	58		65%	244	450
8	21.3	13.0	12.1	1178	41.9	202	77		76%	324	502
9	26.1	14.8	14.0	474	25.4	137	49		81%	349	504
10	28.5	16.7	15.7	474	30.2	179	59		68%	381	516
11	30.6	18.4	17.4	473	34.7	226	102		73%	419	536
12	32.4	20.2	19.1	472	39.0	274	110		77%	460	562
13	34.1	21.9	20.7	471	43.0	325	117		79%	503	593
14	35.6	23.5	22.2	469	46.7	376	124		80%	549	627
15	37.0	25.1	23.7	467	50.1	428	131		81%	595	663
16	38.2	26.6	25.1	465	53.3	480	137		81%	642	702
17	39.3	28.0	26.5	463	56.2	532	143		81%	689	742
18	40.3	29.4	27.8	460	58.9	583	148		81%	736	782
19	41.3	30.7	29.1	458	61.3	632	152		81%	782	822
20	42.2	32.0	30.3	455	63.5	680	157		81%	826	862
21	43.0	33.2	31.5	452	65.5	726	161		81%	870	901
22	43.7	34.4	32.6	449	67.4	772	165		81%	913	941
23	44.5	35.5	33.6	445	69.3	817	168		81%	957	981
24	45.2	36.5	34.6	442	71.1	862	172		81%	1000	1021
25	46.0	37.5	35.6	438	72.8	905	175		82%	1042	1061
26	46.7	38.4	36.5	435	74.4	947	179		82%	1083	1100
27	47.3	39.3	37.3	431	75.9	988	182		82%	1124	1139
28	48.0	40.2	38.1	428	77.4	1028	185		82%	1164	1177
	Diameter at breast helight	Mean top height 100 largest	Mean height of stand	Stocking	Basal area	Stand volume	Estimate of air dried weight of roots		Area shaded by tree canopy		

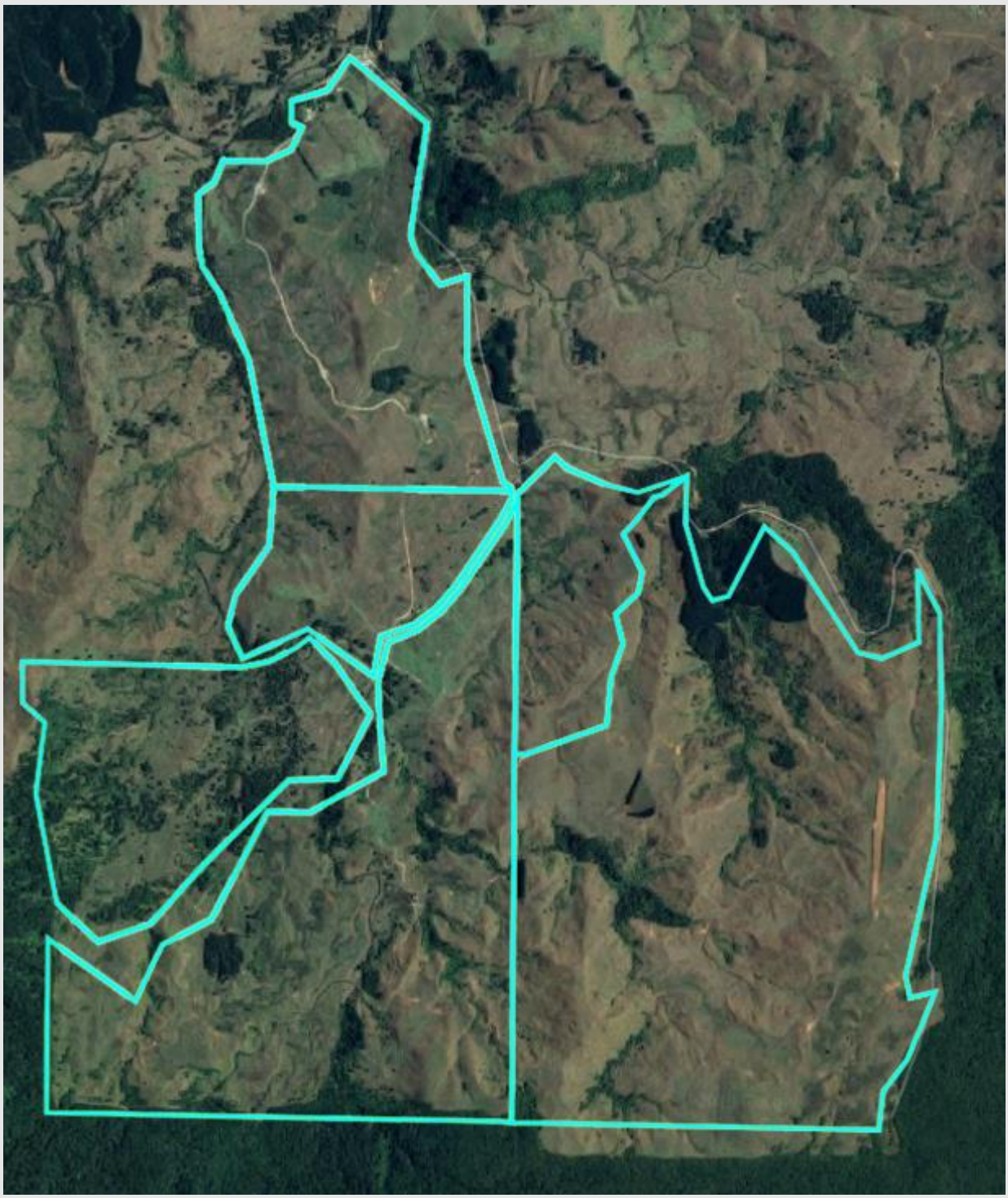
Titles



Aerial views



Aerial views



Technical indicators

Rainfall
1800 mm

Elevation
~300 meters

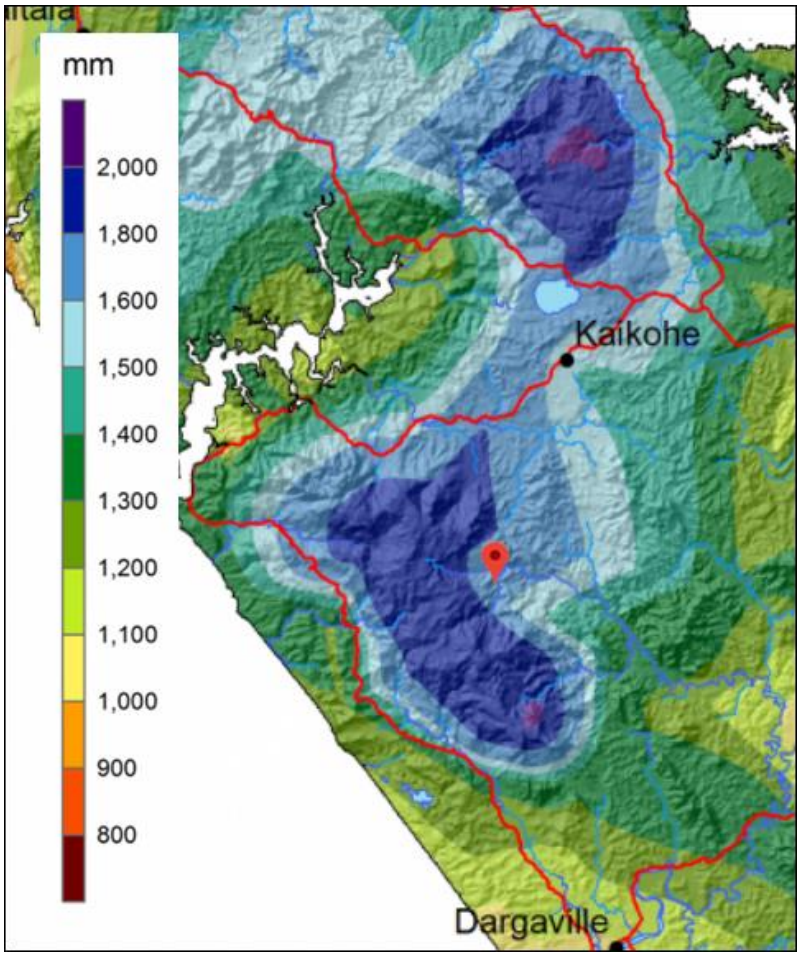
Wood productivity potentials (300 index)
35 m3/ha/yr

Height productivity potential (site index)
32 m

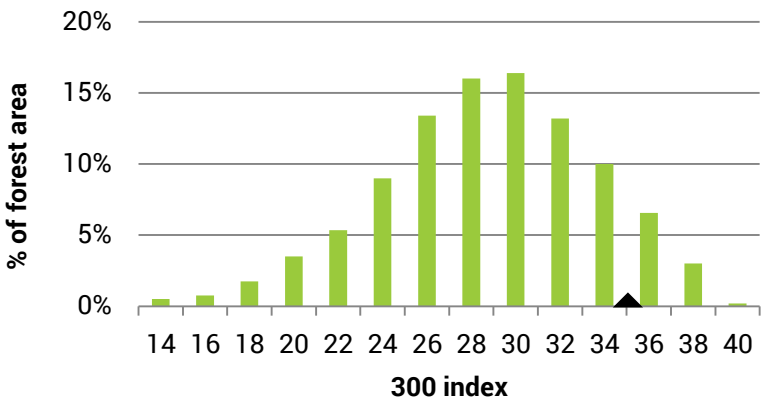
Slope
Rolling

Graphs give national distribution and position in range for the property

Rainfall



Wood volume productivity - All NZ



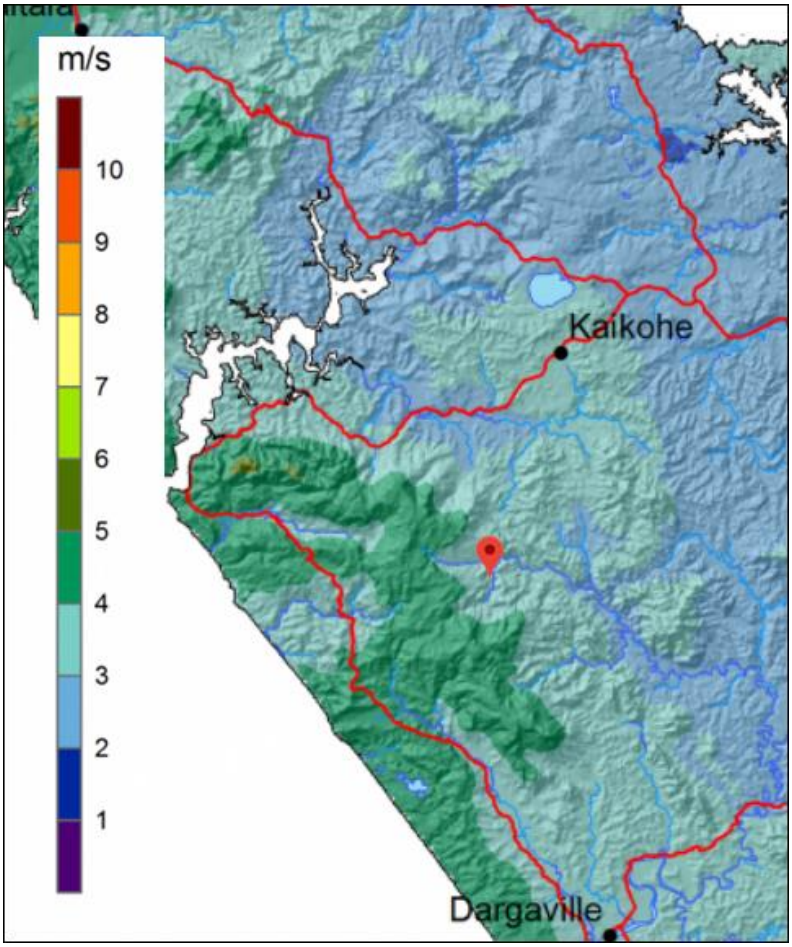
Risk indicators

Wind
4 km/hr
(median annual average wind speed)

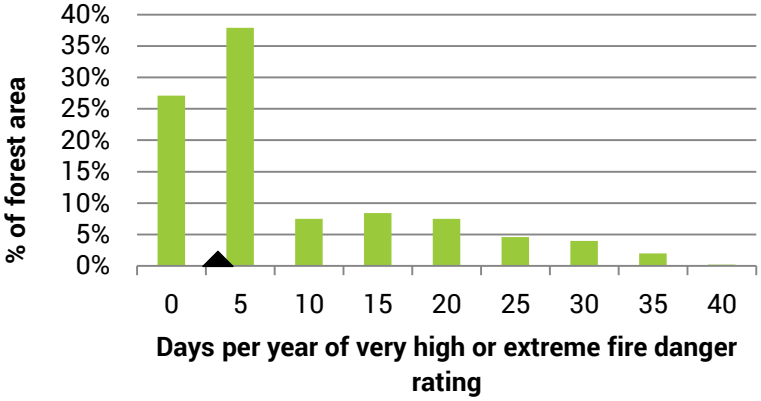
Fire
4
(the average annual number of days per season of very high or extreme danger rating)

Graphs give national distribution and position in range for the property

Wind risk



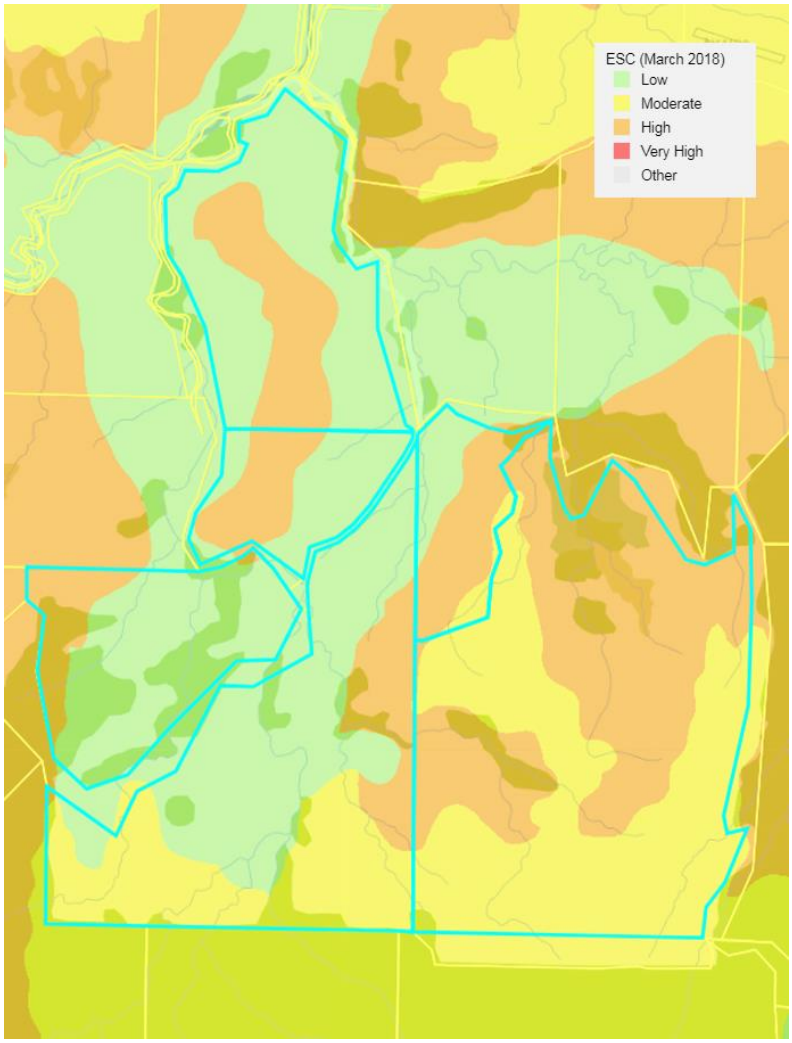
Fire risk - All NZ



Risk indicators

National environmental standard for production forests (NES)
Low to moderate to high

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.

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