April 2024

This fact sheet provides a snapshot of the current state of the forestry and wood processing industries in Te Tauihu-o-Te-Waka/Marlborough. The information is intended to help the public, including landowners, small forest owners, farm foresters, iwi, policy and decision makers get an understanding of the forestry and wood processing industries in the region. All the data and information are current as of April 2024.



The Marlborough region is in the top of the South Island, north of Canterbury and east of Nelson and Tasman. The region has a dry climate. The south and west are mountainous while the centre is a valley (of the Wairau River) which stretches northeast.

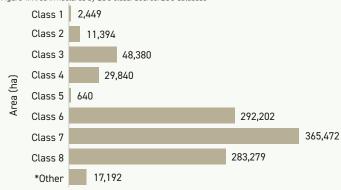


Source: Stats NZ.

Land use capability

The Land Use Capability (LUC) system classifies land into eight categories based on its ability to support various productive uses over time, considering physical constraints and specific management requirements.

Figure 1. Area in hectares by LUC class. Source: LUC database



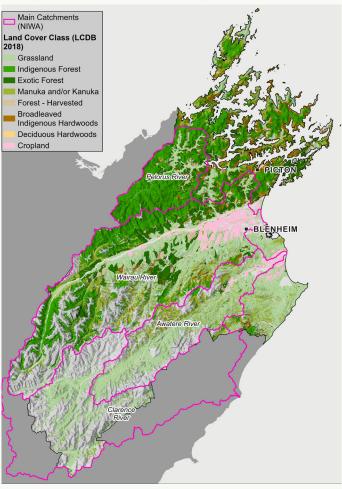
5.9% of the land area in the region is classified as Highly Productive Land (LUC 1 to 3). 61.7% of land area in the region is classified as LUC 7 and 8 (land with slight to severe limitations for productive land uses).

*Other: Estuaries, lakes, quarries, rivers, towns.

Sources: Our Environment - Manaaki Whenua Landcare Research and Target land and land use capability classes - MPI

Existing land cover

Figure 2. Map: Land cover in Marlborough. Source: <u>Land Cover Database (LCDB5) – LRIS.</u>
View a high-resolution version of the land cover in Marlborough map.



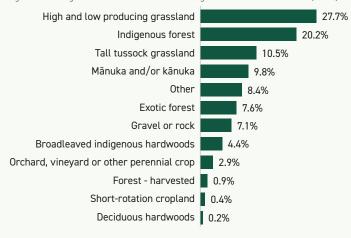
Marlborough's total land area is 10,457.9 sqkm (1,045,790 hectares) making up 4.0% of the total area of New Zealand.

Source: Geographic boundary viewer - Stats NZ

The four largest catchments in the region are the Wairau River (403,250.6 hectares), the Clarence River (157,751.7 hectares), the Awatere River (157,412.3 hectares) and the Pelorus/Te Hoiere River (88,635.8 hectares). All the other catchments in the region are less than 500 hectares.

27.7% (289,532 hectares) of the region's land is covered in high or low producing grassland followed by 20.2% (211,184 hectares) covered by indigenous forest and 10.5% (109,849 hectares) covered by tall tussock grassland.

Figure 3. Percentage of different land covers in Marlborough. Source: Land Cover Database (LCDB5)



Existing forest cover using LCDB1

Exotic forest covers 7.6% (79,138 hectares) of the region's total land area.

Deciduous hardwood such as willows, poplars, oaks, elms and ashes, cover 0.2% (2,451 hectares).

Indigenous forest covers 20.2% (211,184 hectares) of the region's total land area

Mānuka and kānuka, which can act as a nursery crop in a reversion towards forest, covers 9.8% (103,061 hectares).

Broadleaved indigenous hardwoods such as wineberry, mahoe, *Pittosporum spp*, fuchsia, tutu, titoki and tree ferns, cover 4.4% (45,679 hectares) of the region's land.

Forest – harvested includes bare ground where exotic forest was harvested or, less commonly, indigenous forest. It covers 0.9% (9,068 hectares) of Marlborough.

Other includes urban settlements, gravel, rocks, lakes, rivers, sand, among others. It covers 8.4% (87.745 hectares) of the Marlborough region.

Source and forest type definitions: Land Cover Database (LCDB5)

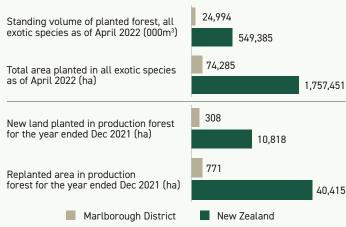
1 Land Cover Database (LCDB5) - 2018

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National Exotic Forest Description (NEFD 2022)² for Marlborough

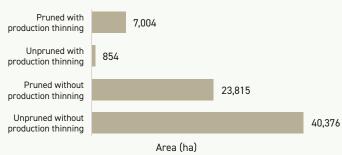
Figure 4. Comparing Marlborough District and New Zealand on key exotic forestry facts. Source: NFFD 2022



The average age of the exotic forest in the region is 19.7 years compared to 18.6 years nationally.

30.5% (22,008 hectares) of the total planted area of radiata pine forest in Marlborough is of potentially harvestable age (age 26-30 years). Compared to 21.2% of the national total planted area that is of potentially harvestable age.

Figure 5. Number of hectares of pruned and unpruned regimes of radiata pine in Marlborough. Source NEFD 2022



21,374 hectares of the region's forests are between 40 and 1,000 hectares in size and owned by 171 forest entities. 51,787 hectares are between 1,000 and 10,000+ hectares in size and are owned by 15 forest entities. 1,124 hectares are forests of less than 40 hectares in size and are owned by 45 forest entities.

Table 1. Nelson and Marlborough wood region total net stocked area in hectares per forest ownership type. Source: NEFD 2022

Ownership type Total Net Stocked Area (Hectares)	
Central government/state ownewd enterpr	rise 127
Local government	6,886
registered puplic company and Māori trust	1,302
privately owned	683
Other	159,241

The area of radiata pine forest in the region is 72,049 hectares, equivalent to 97% of the exotic forest species in the region. Other exotic forestry species are: 1.6% Douglas-fir (1,201 hectares), 0.3% cypress (209 hectares), 0.3% eucalyptus (204 hectares), 0.5% other softwoods such as redwoods (379 hectares) and 0.3% other hardwoods such as acacia and blackwood (243 hectares).

Figure 6. Proportion of exotic forest species in Marlborough. Source NEFD 2022



Wood Availability Forecast (WAF)

Figure 7. Wood Availability Forecast (WAF) scenario 3 for Marlborough, in 000 m3. Source: WAF 2021.

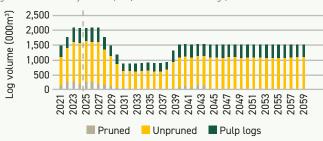


Figure 7 shows the availability of pruned, unpruned and pulp logs between 2021 and 2060, for the region. Wood availability is forecast to drop under 900,000 cubic metres per annum between 2031 and 2038. From 2040 onwards the wood availability is forecast to be around 1.5 million cubic metres per year.

Source: WAF August 2021 - Scenario 3 - Canopy

Markets

Figure 8. Percentage of exports vs domestic processing of logs for Marlborough for the year ended in December 2023. Source: Calculations based on OMT – Stats NZ and roundwood removals – MPI.

Export (m3), 65%

Domestic (m3), 35%

In 2023:

- 719,974 m3 of logs were exported from Picton (Port Marlborough).
- Port Marlborough exported 3.4% of national log exports.
- 383,300 m3 of logs went to sawmills in Marlborough region contributing to 3.4% of the total log volume processed domestically.

Source: Calculations based on Overseas Merchandise Trade - Stats NZ and roundwood removals - MPI.

Forestry and wood processing supply chain

Nurseries

There is at least one major nursery producing exotic species and at least four nurseries in the region producing native species.

Wood processing

There are a combination of major and small wood processing plants in the region producing sawn timber. There are at least 6 other wood processors producing less than 20,000 m3 of beams, posts and poles per annum in the region.

In 2023:

- Nelson and Marlborough produced 328,366 m3 of sawn timber. This is 9.0% of New Zealand's total sawn timber production for the period.
- Nelson and Marlborough produced 401,643 m3 of panels. This is 29.5% of New Zealand's total panels production for the period.

Source: Quarterly production statistics MPI. Statistics for calendar year 2023 (Jan-Dec). This data includes only mills that report data quarterly. Data from mills that report annually is not included.

Workforce

Figure 9. Comparing the numbers of workers within forestry and wood processing for Nelson, Tasman and Marlborough regions. Source: NZIER 2021



In 2021, the potential workforce in the Nelson, Tasman and Marlborough regions was 101,200 people, 68.4% (69,199) of whom were working.

In 2021, an estimate of 37,835 people worked in the forestry and wood processing sectors in New Zealand. There were an estimated 2,165 workers in the forestry and wood processing sectors in the Nelson, Tasman and Marlborough regions.

During the same period, 1% (553 people) of the working population in Nelson, Tasman and Marlborough regions worked in forestry and 2% (1,612 people) in wood processing.

Sources: Stats NZ - 2021 data, <u>Forestry and wood processing labour force survey - NZIER July 2021</u> (PDF, 1418 KB)

² The <u>2022 National Exotic Forest Description (NEFD) – MPI</u> provides a detailed description of New Zealand's planted production forest.

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New Zealand Dryland Forest Innovation

Since 2003, the New Zealand Dryland Forests Innovation (NZDFI), formerly New Zealand Dryland Forests Initiative, have been looking at the potential to grow durable eucalypts in the Marlborough region. They look at producing vineyard posts as an alternative to posts from radiata pine treated with copper chrome arsenate (CCA). The NZDFI vision involves the development of a sustainable and durable hardwood industry for New Zealand.

NZDFI offers improved eucalypt trees and forestry knowledge to growers, enabling them to choose and grow eucalypt species suited for their sites.

In July 2023, the Marlborough Research Centre (MRC) released a report showing early results of 14 demonstration trials to test 11 different eucalypt species in different New Zealand environments. The demonstration trials were implemented by NZDFI across the North Island and in Marlborough, Nelson and North Canterbury.

The species selected by NZDFI were eucalypt species with adaptability to warm and dry conditions along with timber durability, fast growth, drought, frost and pest tolerance, good nectar/pollen production for native biodiversity and bees, among others.

NZDFI focused on *E. bosistoana*, *E. globoidea*, and *E. quadrangulata* for the tree improvement breeding programme. Additional species were included in the trials to explore their suitability for commercial plantation use.

The report emphasised the importance of matching species to specific sites (genotype by environment interaction $G \times E$) and end-products for successful eucalypt forestry.

Source: New Zealand Dryland Forest Innovation – Our history, Variation in adaptability and productivity between durable eucalypt species in different New Zealand environments (PDF 1.4 MW)

Te Hoiere Project

Since 2019, Te Hoiere/Pelorus Catchment Project, a community driven environmental restoration project, has been working to improve land resources and freshwater in the Pelorus/Te Hoiere catchment. The main actions include tree planting, pest control, fencing waterways and wetlands, and monitoring water quality, land use impacts and wildlife.

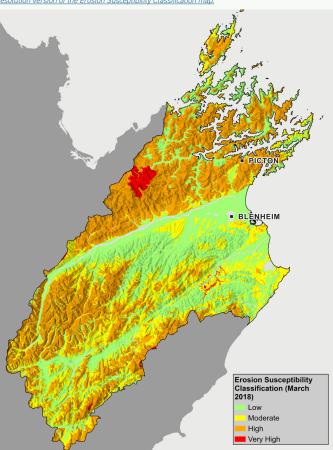
The Top of the South Wood Council (TOTSWC), a member of Te Hoiere working group, is running five forestry related research projects focused on sediment management, post-harvest riparian management, land use transition, exclusion of introduced ungulates and a toolkit and forest database for researchers and monitoring teams.

Around 75% (10,739 hectares) of Marlborough's very highly erodible land is in the Pelorus/Te Hoiere River catchment. Almost 80% of this land within the catchment is public conservation land covered by indigenous forest. The rest is privately owned land covered with mānuka/kānuka and gorse and/or broom.

Erosion

Around 1.4% (14,225 hectares) of the region's land is classified as very highly susceptible to erosion and 42.8% (448,205 hectares) are classified as highly susceptible to erosion using the ESC (Erosion Susceptibility Classification) (See Figure 9), compared to around 13.1% (3,472,477 hectares) and 19.2% (5,083,013 hectares), respectively, for New Zealand.

Figure 9. Erosion Susceptibility Classification (ESC) for Marlborough. Source: MPI. View a high-resolution version of the Erosion Susceptibility Classification man



Government funding

One Billion Trees: As of December 2023, \$3.4 million in funding has been approved for direct landowner and partnership grants in the region.

A total of 1,107 hectares were planted in the region using the One Billion Trees fund.

The One Billion Tree fund, part of the One Billion Trees Programme, is now closed to new applications. The programme's goal is to plant a billion trees by 2028. One Billion Trees Programme – MPI.

Hill Country Erosion (HCE) Programme: Since 2018, \$2.2 million in funding has been approved for projects in Marlborough.

Between 2019 and 2023 alone, the HCE Programme helped protect 570 hectares of erosion-prone land in Marlborough through native (indigenous) reversion projects, exotic forestry and the strategic planting of poplar and willow trees.

The HCE Programme is a partnership between MPI, councils and landowners to support regional erosion-control projects. <u>Hill Country Erosion Programme for councils – MPI.</u>



Indigenous forestry

In 2022, tōtara, silver beech and red beech were the indigenous species with the most volume delivered to mills in the region.

Table 2. Log volumes in m3 delivered to mills in 2022 in Nelson, Tasman and Marlborough.

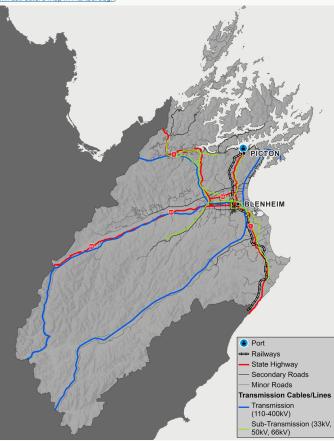
Source: Indigenous Forestry - MPI.		
Species	m3	
hard beech	14.9	
kahikatea	0.2	
kānuka	0.3	
mātai	7.9	
mountain beech	1	
red beech	56.1	
rimu	62.5	
silver beech	57.9	
tōtara	123.9	

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Infrastructure

Figure 12. Map of key infrastructure across Marlborough. <u>View a high-resolution version of the</u> infrastructure map in Marlborough.



The power lines information on this map may be incomplete. The information that is currently displayed is what MPI had authorised access to at the time of creating this fact sheet.

Roads

State Highway 1 (SH1) connects Port Marlborough at the northeast of the region, to the east of the region and down to the Kaikōura District in the Canterbury region. State Highway 63 (SH63) connects the west side of Marlborough to the Tasman region and State Highway 6 (SH6) the northwest to the Nelson region.

Electricity

Transpower owns the transmission lines in the region which consists of one 110kV double circuit and one 110kV single circuit lines, one 220kV double circuit and one 220kV single circuit lines, and one 350kV double circuit line.

Power is generated in the region by Argyle (Branch River Scheme) hydroelectric (3.8 MW) and Waihopai hydroelectric (2.5 MW) operated by Manawa Energy, Weld Cone (0.8 MW) and Lulworth (1 MW) wind farms operated by Energy3, and Wairau Valley (2.2 MW) solar farm operated by Kea Energy.

The high voltage direct-current (HVDC) link is a 600-megawatt (MW), 500 kilovolt (kV) transmission line that enables the transmission of electricity between the North Island and the South Island of New Zealand. This submarine segment of the link crosses the Cook Strait from Oteranga Bay in Wellington to Fighting Bay in the Marlborough Sounds.

Port Marlborough

The Port is located in Picton. It provides services for key industries in the region, including forestry, fishing, marine farming, domestic and international tourism and recreational boating.

A debarking facility is scheduled to be established at the Port in their 2024 financial year. Debarking logs will eliminate the need for chemical fumigation for exporting logs to countries allowing debarked logs.

Table 3. Picton Port export volumes and value (Free on Board - FOB) for forestry and wood products for the year ended December 2023. Source: Overseas Merchandise Trade

Product	Unit of Measure	Volume	Value - FOB (NZD)
Logs	Cubic Metre	719,974.5	102,402,914.0
Chips	Bone Dry Unit	4,630.0	1,542,503.0
Total		724,604.5	103,945,417.0

Rail

The rail lines in the region connect the Port in Picton to Blenheim and down the east coast to the Canterbury region.

Sources: KiwiRail, Port Marlborough, Transpower, Manawa Energy, Energy3, Kea Energy, New Zealand Transport Agency / Waka Kotahi websites.

Useful links

orestry

The sustainable management of indigenous forests - Ministry for Primary Inustries (PDF, 3 MB).

New Zealand forest data - Ministry for Primary Industries

Afforestation and deforestation intentions survey 2022 - Ministry for Primary Industries (PDF, 943 KB)

Forestry in the Marlborough District - RemoteHQ

Land Cover Industry - Marlborough District Council

Wood processing

Invest in New Zealand wood processing (March 2020) – New Zealand Trade and Enterprise

Information releases - Overseas merchandise trade - Stats NZ

Regional statistics

Marlborough region 2018 Census data - Stats NZ

Regional Economic Activity Web Tool - Marlborough - Ministry of Business, Innovation and Employment.

Regional updates - New Zealand Transport Agency

Top of the South / Te Tau Ihu - Kānoa

Infrastructure

Port Marlborough annual report 2023 (PDF, 4.9 MB)

Maps and Geospatial data - Kiwirail

Transmission lines - Transpower

Economic development

Marlborough Smart+Connected - Marlborough District Council

Feedback

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