

This fact sheet looks at the current state of the forestry and wood processing industries in Tairāwhiti/Gisborne. The information is intended to help the public, including landowners, small forest owners, farm foresters, iwi, policy and decision makers get an understanding of these industries in the region. All the data and information is current as of November 2023.

The Tairāwhiti/Gisborne region is in the north-eastern corner of the North Island of New Zealand. It extends from Hicks Bay in the north to Wairoa district in the south, between the Raukūmara Range in the west and the Pacific Ocean to the east.

The region has some of the highest growth rates of *Pinus radiata* in New Zealand.

<b>51,900</b> Estimated regional population 2022 (1% nationally)	<b>53.5%</b> Population that identify as Māori – 2018 Census (15% nationally)
<b>2,458 million</b> Regional GDP (0.7% National GDP)*	<b>219 million</b> GDP in Forestry, fisheries and mining (8.9% of regional GDP)*
<b>\$47,919</b> GDP per capita*	<b>65.7%</b> Regional employment rate*

Source: Stats NZ  
\*Year to March 2021

## Existing forest estate

**Exotic forest** covers 19.12% (160,308 ha) of the region's total land area.

Deciduous hardwood such as willows, poplars, oaks, elms and ashes, which are exotic woodland, cover 0.77% (6,474 ha).

**Indigenous forest** covers 15.24% (127,744 ha) of the region's total land area.

Mānuka and kānuka scrub, typically as a nursery crop in a reversion towards forest, covers 8.95% (75,040 ha).

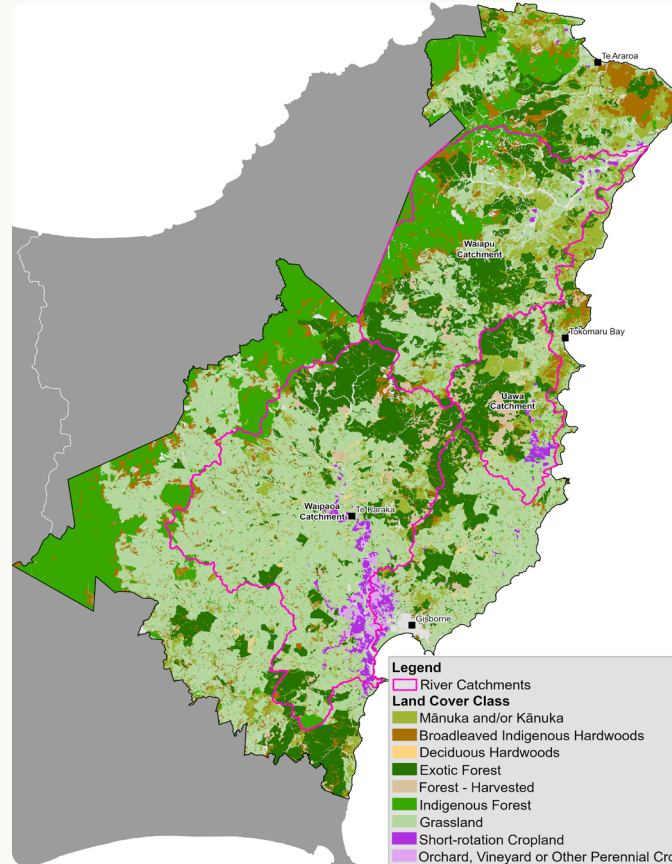
Broadleaved indigenous hardwoods such as wineberry, mahoe, Pittosporum spp, fuchsia, tutu, titoki and tree ferns, cover 7.19% (60,278 ha) of the region's land.

**Forest – harvested** is made up of bare ground where exotic forest was harvested or, less commonly, indigenous forest. It covers 2.25% (18,828 ha) of Tairāwhiti.

Source: Land Cover Database (LCDB5)

## Existing land cover

Figure 1. Map: Land cover in Tairāwhiti. Source: [Land Cover Database \(LCDB5\) - LRIS](#). View a high resolution version of the [land cover in Tairāwhiti map](#).



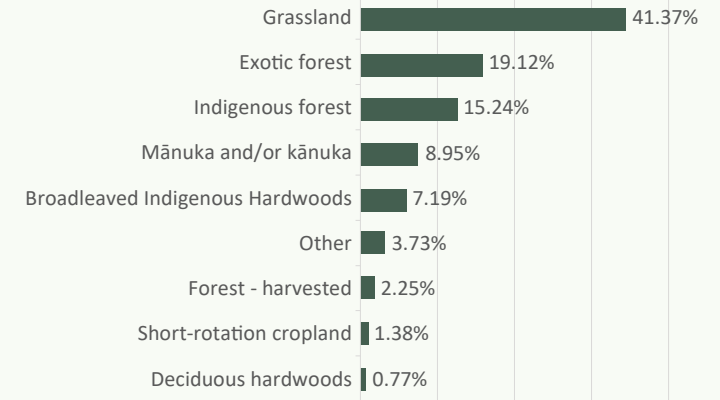
Tairāwhiti total land area is 838,506 ha, making up 3% of the total area of New Zealand.

Source: [Geographic boundary viewer - Stats NZ](#)

There are 3 main catchments in the region: Waipaoa (220,716 ha), Waipuu (153,855 ha) and Uawa (53,865 ha). 65% of the exotic forestry in the region is in these three catchments.

41.37% of the region's land is covered in grassland followed by 19.12% covered by exotic forest and 15.24% by indigenous forest.

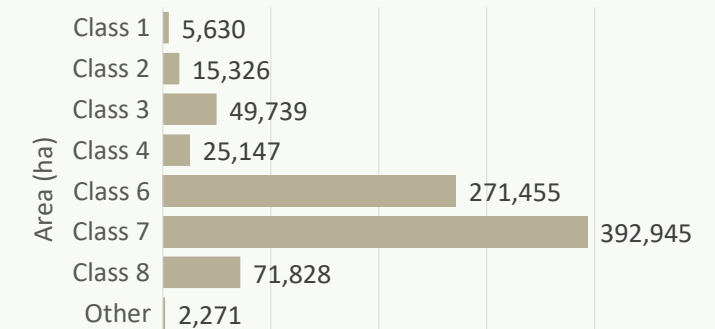
Figure 2. Percentage of different land covers in Tairāwhiti. Source: Land Cover Database (LCDB5)



## 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 3. Area in hectares by LUC class.

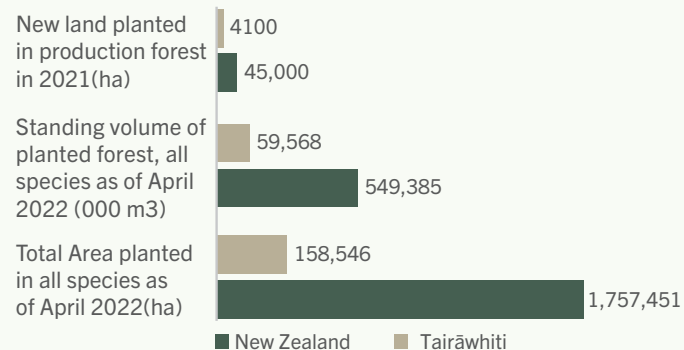


88.2% of land area in the region is classified under LUC 6, 7, and 8. Gisborne doesn't have any LUC 5 land.

Sources: [Our Environment - Manaaki Whenua Landcare Research](#) and [Target land and land use capability classes - MPI](#)

## National Exotic Forest Description (NEFD 2022)<sup>1</sup> for Tairāwhiti

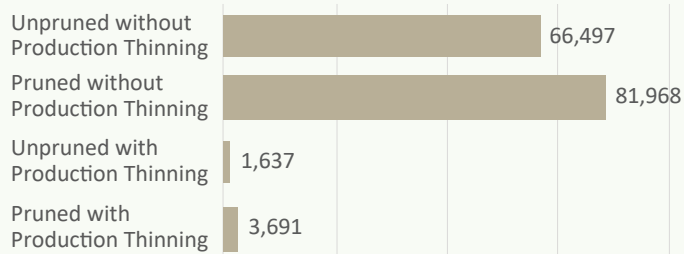
Figure 4. Comparing Tairāwhiti and New Zealand on key exotic forestry facts for the year 2022. Source: NEFD 2022



The average age of the exotic forest in the region is 20 years compared to 18.6 years nationally.

The potential harvestable area of *Pinus radiata* forest (age 26-30 years) in the region is 28% of the total planted forest area. Compared to 21.2% of the national total planted area that is potentially harvestable.

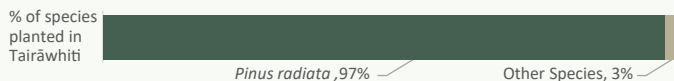
Figure 5. Number of hectares of pruned and unpruned regimes of *Pinus radiata* in Tairāwhiti. Source: NEFD 2022.



21.6% (34,195 ha) of the region's forests are <1,000 ha in size and owned by 90 forest entities. The rest of the forests are between 1,000-10,000+ ha in size and are owned by 24 forest entities.

1. The [2022 National Exotic Forest Description \(NEFD\) - MPI](#) provides a detailed description of New Zealand's planted production forest.

Figure 6. Proportion of exotic forest area in Tairāwhiti. Source NEFD 2022



The area of *Pinus radiata* forest in the region is 153,794 ha, equivalent to 97% of the exotic forest species. Other exotic forestry species are: 1.3% Douglas-fir (2,059 ha), 0.17% cypress (264 ha), 0.35% eucalyptus (561 ha), 0.59% other softwoods such as redwoods (939 ha) and 0.59% other hardwoods such as acacia and blackwood (931 ha).

## Wood Availability Forecast (WAF)

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

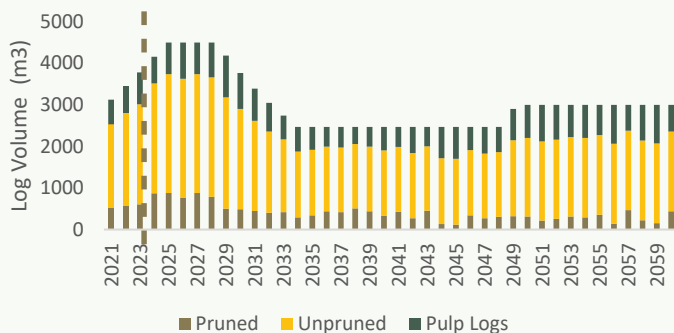


Figure 7 shows the availability of pruned, unpruned and pulp logs between 2021 and 2060, for the region. Wood availability is forecasted to be between 3 and 4 million cubic metres per annum until the early 2030s. Then, there is a 15-year period, from about 2034 to 2048, where wood availability drops to about 2.5 million cubic metres per annum.

Source: [WAF August 2021 - Scenario 3 - Canopy](#)

## Markets

Figure 8. Exports and domestic processing of logs in Tairāwhiti



In 2022 in Tairāwhiti:

- 2,309,370.51 tonnes (96%) of logs harvested in the region were exported from Eastland Port and 87,930.92 tonnes (4%) were used for domestic processing.
- The region harvested 7%, exported 12% and domestically processed 0.6% of New Zealand's logs.
- 8,898.4 m3 of sawn timber and sleepers (0.8% of New Zealand's total sawn timber exports) were exported from Eastland Port.

Source: Levy Trust data for 2022, OMT 2022/2023

## Forestry and wood processing supply chain

### Nurseries

There is one major nursery in the region producing exotic tree species. There are also some nurseries producing native tree species in the region. They include private businesses to trusts, and the District Council.

### Wood processing

In 2022:

- Tairāwhiti and Hawke's Bay produced 477,023 m3 of **sawn timber**. This is 10.7% of New Zealand's total sawn timber production for the period.
- Tairāwhiti and Hawke's Bay produced 3,241 m3 of **panels**. This is 0.2% of New Zealand's total panels production for the period.
- Tairāwhiti and Hawke's Bay produced 133,264 air dry tonnes of **pulp**. This is 15.1% of New Zealand's total panels production for the period.

Source: Quarterly production statistics MPI. Statistics for calendar year 2022 (Jan-Dec). This data includes only mills that report data quarterly. Data from mills that report annually are not included.

## Government funding

**One Billion Trees:** as of July 2023, \$12.6 million in funding has been approved for direct landowners and partnership grants in the region.

The One Billion Trees Fund is closed. It was part of the One Billion Trees Programme. The programme's goal is to plant a billion trees by 2028. [One Billion Trees Programme - MPI](#).

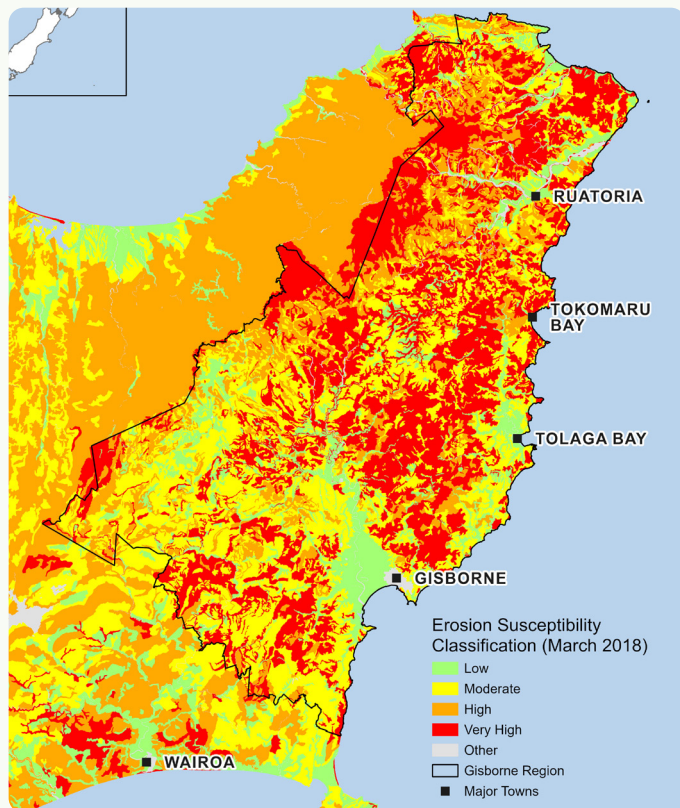
**Erosion Control Funding Program (ECFP):** As of July 2023, \$77.8 million in funding had been approved for projects in the region. These projects were a mix of land treatment on individual properties and community partnership projects to foster innovative approaches to addressing erosion in the region. ECFP funding is now closed for new applications and support is now provided through MPI's Hill Country Erosion Programme. [Erosion Control Funding Program \(ECFP\) - MPI](#), [Hill Country Erosion Programme for councils - MPI](#).

**Provincial Growth Fund (PGF):** as of 31 August 2023, \$271.44 million in funding has been approved for projects in the region.

Through this fund, the government seeks to help build a regional economy that is sustainable, inclusive and productive. [The Provincial Growth Fund - Kānoa](#).

## Erosion

Figure 9. Erosion Susceptibility Classification (ESC). Source: MPI. View a high resolution version of the [ESC map](#).



Around 38% of the district's land (320,000 ha) is classified as very highly susceptible to erosion in the ESC (Erosion Susceptibility Classification) scale (See Figure 9), compared to around 12% for the rest of New Zealand.

In 2009, Gisborne District Council identified the land requiring erosion treatment as Overlay 3A (L03A). The overlay shows how different areas of land are more or less likely to erode. This information is based on what's in the Tairāwhiti Resource Management Plan.

[Land Overlay 3A - Gisborne District Council](#)

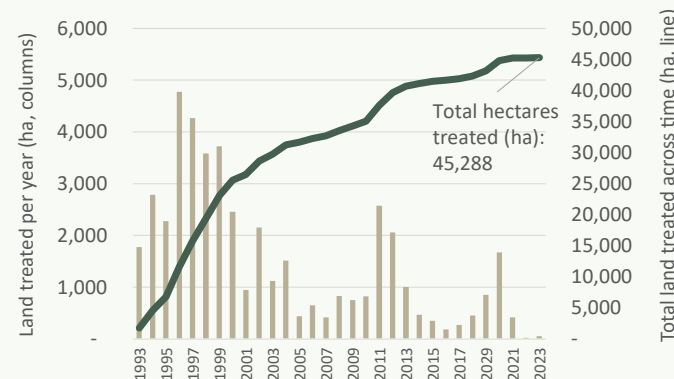
### Forestry for erosion control

Forestry plays a significant role in stabilising erosion prone land. Trees and forests have a better ability to stabilise hill sides compared with other landcover types such as grasslands. Trees and forests increase rainfall interception, and their roots can reach deeper into the soil, holding it together<sup>2</sup>.

## Erosion Control Funding Program - ECFP

The ECFP was established in 1992 with the aim to control erosion on significantly eroded or erosion-prone land in the Tairāwhiti region. As of July 2023, the ECFP had treated 45,288 ha of land including 39,488 ha of exotic forest and the remainder in pole planting and native reversion (see Figure 10). Another 9,151 ha of approved treatments are in progress, towards a target of 54,439 ha approved to be treated by 2030.

Figure 10. Hectares of land treated through the ECFP



As of October 2023, 11.9 ha of exotic and 233.4 ha of native forest have been planted in Tairāwhiti on erosion prone land under the **One Billion Trees Programme (1BT)**. This equates to 0.34% of the total exotic and 4.3% of the total native 1BT planting on erosion prone land nationally.

## Woody biomass

The two main sources of woody biomass<sup>3</sup> are wood processing residues such as bark, sawdust, shavings, off-cuts and in-forest residues (branches, tree-tops and non-merchantable timber) generated from harvesting, thinning and pruning operations. The volume of in-forest residues can vary depending on the felling and extraction method, terrain, and crop type<sup>4</sup>. For example, harvesting of forests in steep terrain requires cable yarder operations, which generally leave behind more residues than ground-based operations<sup>5</sup>.

### Supply

In 2021, it was estimated that from 2021 to 2025 between 311,174 to 382,481 m<sup>3</sup>/year of woody residues are available in the region based on 2 different recoverability scenarios. If used for heat generation, these volumes could produce between 2,147,101 and 2,639,119 GJ<sup>6</sup> per annum.

Additionally, it was estimated that between 27,285 and 30,696 tonnes of bark per annum are available at Eastland Port between 2021 and 2025<sup>7</sup>.

In 2018, a harvest residue of 120 m<sup>3</sup>/ha was estimated for the region<sup>5</sup>.

### Demand

Woody residues could replace coal for heat production but there is little demand for it in the region. In 2019, the demand for industrial process heat from coal in Tairāwhiti was 10,000 GJ<sup>6</sup> p.a. This equates to about 0.4% of the region's potential woody residue supply<sup>8</sup>.

2. Phillips et al. (2015). [Forest and erosion protection - getting to the root of the matter - New Zealand Institute of Forestry](#).

3. [Woody biomass - EECA \(PDF, 613 KB\)](#) is a term used to describe wood, wood residue and by-products, and dedicated, fast growing trees, bushes and shrubs.

4. Hall, P. (1999). [Logging residue distribution - Forest Growers Research \(PDF, 1400 KB\)](#).

5. Visser, R. (2018). [Best practices for reducing harvest residues and mitigating mobilisation of harvest residues in steepland plantation forests - UC Library \(PDF, 3.7 MB\)](#).

6. A gigajoule (GJ) is a unit of energy used for comparing energy sources. One GJ can power 10-12 houses for a day. [Energy from wood is good for New Zealand and the climate - Scion Research \(PDF, 2.2 MB\)](#). 1 green tonne of wood yields approximately 6.8GJ of energy. [Residual biomass fuel projections for New Zealand; 2021 - Wood Energy \(PDF, 3.8 MB\)](#).

7. Hall, P. (2021). [Residual biomass fuel projections for New Zealand; 2021 - Bioenergy association \(PDF, 3.8 MB\)](#).

8. [Demand for coal and liquid fuel for industrial process heat map - MBIE](#).

## Workforce

Figure 11. Comparing the numbers of workers within forestry and wood processing.



In 2021, an estimate of 37,800 people worked in the forestry and wood processing sectors in New Zealand. There were an estimated 1,229 workers in the forestry and wood processing sectors in the Tairāwhiti region.

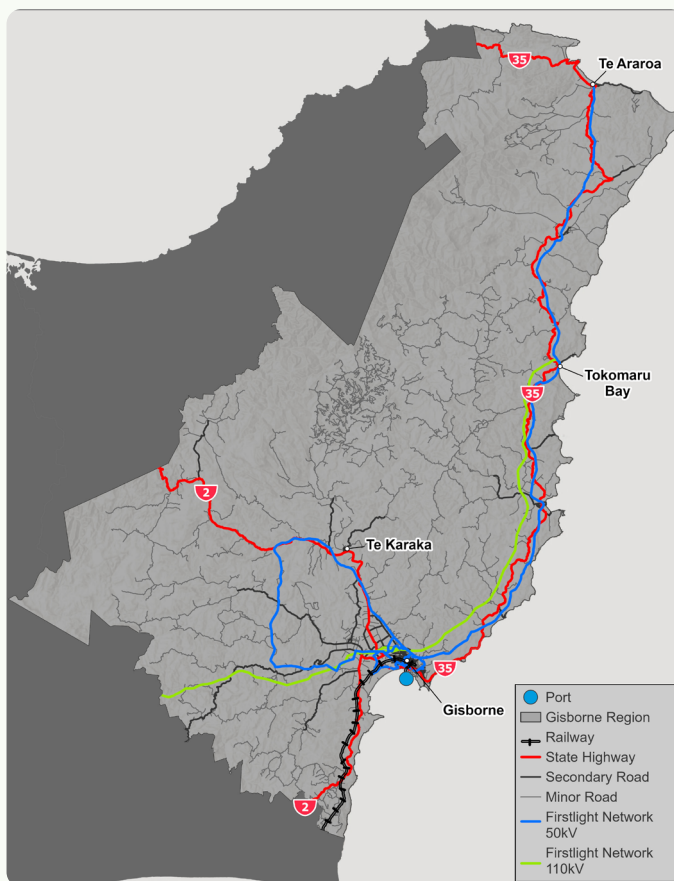
In 2021, the potential workforce in the region was 31,800 people, 69% (22,000) of whom were working.

During the same period, 4% of the workforce in Tairāwhiti worked in forestry and 2% in wood processing.

Sources: Stats NZ - 2021 data, [Forestry and wood processing labour force survey - NZIER July 2021\(PDF, 1418 KB\)](#)



Figure 12. Map of key infrastructure across Tairāwhiti.

View a high resolution version of the [Tairāwhiti infrastructure map](#).

## Infrastructure

### Electricity

Tairāwhiti is connected to the country's electrical network through the Tuai grid exit point situated at the Tuai power station, an integral component of the Waikaremoana Power Scheme. Managed by Genesis Energy, this power facility possesses a collective power generation potential of 60MW.

The Firstlight Network owns the electricity transmission network in the region, which mainly consists of two 110kV and 50kV line circuits.

### Roads

Tairāwhiti relies on two state highways to connect with other regions and within the region. SH2 provides the only road connection to the south, while SH2 and SH35 connect Tairāwhiti to the Bay of Plenty via East Cape and Waioeka Gorge, respectively.

### Eastland Port

Eastland Port is at the base of Titirangi hill, where the Tūrangānuī River flows into the bay.

The port exported 2,309,371 tonnes of logs in 2022, which equates to 12% of the total national log exports, and the second national largest volume by port, for that year.

Eastland Port has a debarking facility which eliminates the need for chemical fumigation for exporting logs to countries allowing debarked logs. Currently, the port does not have a containerised freight capability.

### Rail

The line between Wairoa and Napier port is a vital link in the region's forestry supply chain which helps to reduce the number of heavy log trucks on the regional roads.

Log trains were suspended on 1st January 2023 for logistic reasons. Currently, this rail line is closed with no estimated opening date. Prior to the closure, the line had the capacity to transport 150,000 tonnes of logs a year (around 690-tonne per weekday). This equates to removing 23 log trucks per day on the road between Wairoa and Napier port.

Sources: Firstlight network website, Genesis energy website, Eastland Port website, KiwiRail website, KiwiRail comms, Levy Trust data 2022.

## Useful Links

[Invest in New Zealand wood processing \(March 2020\) – NZTE.](#)

[Key documents – Trust Tairāwhiti](#)

[Local Insights Report: August 2023 – MBIE.](#)

[Gisborne region 2018 Census data – Stats NZ.](#)

[Regional Economic Activity Web Tool – MBIE.](#)

[Tairāwhiti regional skills leadership group – MBIE \(PDF, 2.5 MB\).](#)

[Tairāwhiti – Gisborne – NZTA](#)

[Waka Kotahi Arataki version 2 - Gisborne - NZTA \(PDF, 813 KB\)](#)

[Regional FAQ: Gisborne / East Coast - Trees That Count \(PDF, 2.8 MB\)](#)

[Whenua futures - Understanding the long-term impact of land use decisions in Tairāwhiti.](#)

[Tairāwhiti Māori economic development report - Te Puni Kōkiri.](#)

[What we have founded – Kānoa](#)

[East Coast / Tairāwhiti – Kānoa](#)

[Ministerial Inquiry into Land Use – MfE](#)

[New Zealand forest data – MPI](#)

[Tairāwhiti Resource Management Plan - Gisborne District Council](#)

[Maps and data – Gisborne geoportal data hub](#)

[Afforestation and deforestation intentions survey 2022 - MPI \(PDF, 943 KB\)](#)

## Feedback

Contact email: [info@mpi.govt.nz](mailto:info@mpi.govt.nz)

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