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This fact sheet provides a snapshot of the state of the forestry and wood processing industries in Te Tauihu-o-Te-Waka/Nelson Tasman. It will help you understand the forestry and wood processing industries in the regions.



The Nelson and Tasman regions are located at the top of the South Island of New Zealand, surrounding Tasman Bay/ Te Tai-o-Aorere. This fact sheet looks at both regions as Forestry and Wood Processing are strongly connected and integrated. Geographically the Tasman region connects to the West Coast to the southwest, Canterbury to the southeast, Marlborough to the east and Nelson to the northeast. Nelson and Tasman have temperate climates, rarely experience extreme highs or lows. The stats below detail both regions.

6,023 million

Regional GDP for year ended March 2022 (1.8% of National GDP)

637

Number of building consents for all construction for the year ended December 2023 (56.1% annual percentage change)

58,580

P per capita for year ended March 2022

115,000

Estimated combined regional population year ended June 2023

196 million

DP in Forestry, fisheries and mining for year ended March 2021 (3% of the GDP for the region)

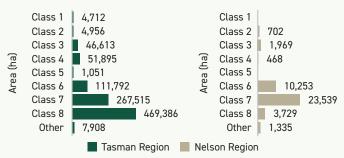
10%

Population that identifies as Māori – 2018 Census (15% nationally)

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

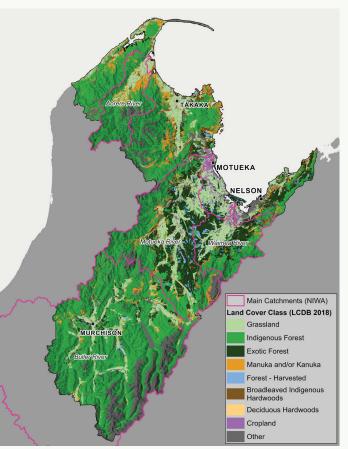


Less than 7% of the land area in either Nelson or Tasman is classified as Highly Productive Land (LUC 1 to 3). Respectively, 24% and 12% of land area in Nelson and Tasman are classified as LUC 6. In Nelson 65% and in Tasman 76% of land area are classified as LUC 7 and 8 (land with slightly to severe limitations for productive land uses). Nelson has no Class 1 or 5 land.

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

Existing land cover

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



Tasman's total land area is 9,615 km² (961,558 hectares) making up 3.7% of the total area of New Zealand. Nelson's total land area is 422 km² (42,219 hectares) making up 0.2% of the total area of New Zealand. Together the region is 3.9% of New Zealand's total area.

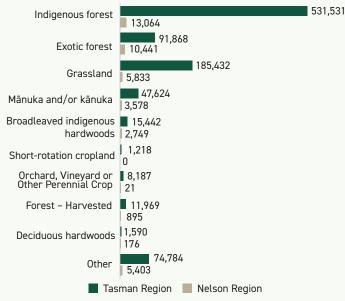
Source: Geographic boundary viewer - Stats NZ

The largest catchments in Tasman are Buller River (371,650 hectares), Motueka River (205,567 hectares), Waimea River (72,042 hectares, with 4,883 hectares in Nelson and 59 hectares in Marlborough), and Aorere River (68,448 hectares), all the other catchments in the regions are less than 1,000 hectares. Nelson is part of two catchments Waimea River (Figure 2),

and a small section of the Pelorus River catchment which stretches (269 hectares in Nelson, 28 hectares in Tasman and 88,653 hectares in Marlborough).

Forests are the primary type of land cover in both regions; with the largest proportional land cover being indigenous forest, covering over half of the land in Tasman (55%, 531,531 hectares) and nearly a third of Nelson (31%, 13,064). Next is exotic forest which is proportionally covering more land in Nelson at 24% (10,441 hectares) and 10% (91,868) of Tasman. Grassland cover 19% (185,432 hectares) of Tasman and 13.8% (5,833) hectares of Nelson.

Figure 3. Percentage of different land covers in Nelson and Tasman.





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Other types of existing forest cover using LCDB1

See Figure 3 on page 1

Mānuka and kānuka, which can act as a nursery crop in a reversion towards forest, covers 8% (3,578 hectares) of Nelson and 5% (47,624 hectares) in Tasman.

Broadleaved indigenous hardwoods such as wineberry, mahoe, Pittosporum spp, fuchsia, tutu, titoki and tree ferns, cover 6.5% (2,749 hectares) of the land in Nelson and 2% (15.442 hectares) in Tasman.

Deciduous hardwood such as willows, poplars, oaks, elms and ashes, cover 0.6% (1,766 hectares) across the two regions (176 hectares in Nelson, and 1.590 in Tasman).

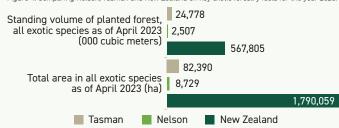
Forest – harvested includes bare ground where exotic forest was harvested or, less commonly, indigenous forest. It covers 2.1% (895 hectares) of Nelson and 1% (11,969 hectares) of Tasman.

Other includes urban settlements, gravel, rocks, lakes, rivers, sand, among others.

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

National Exotic Forest Description (NEFD 2023)² for Nelson and Tasman

Figure 4. Comparing Nelson, Tasman and New Zealand on key exotic forestry facts for the year 2023.

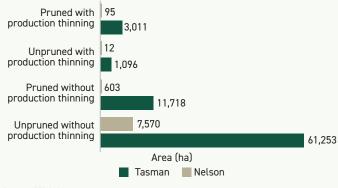


Source: NEFD 2023

The average age of the exotic forest in the Tasman region is 17.9 years and in Nelson it is 17.2 years, compared to 18.6 years nationally.

15% (11,730 hectares) of the total planted area of forest in Tasman and 13% (1,112 hectares) in Nelson is of potentially harvestable age *Pinus radiata* (age 26-30 years). Compared to 22% 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 Nelson and Tasman.



Source NEFD 2023

Table 1. Nelson and Tasman number of forest owners and total forest area by national size class3.

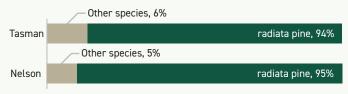
	< 40 ha	40-99 ha	100-999 ha	1,000-9,999 ha	10,000+ ha
Area (ha)	10,649	4,563	6,608	5,371	63,928
Number of forest owners	na	70	33	5	4

Source: NEFD 2023

Table 2. Nelson and Tasman Total net stocked area in hectares per forest ownership type.

Ownership type	Total net stocked area (ha)	
Private and registered public companies	87,394	
Central and local government	3,232	
Māori Trust & Other	493	

Figure 6. Proportion of exotic forest species in Nelson and Tasman. Source NEFD 2023

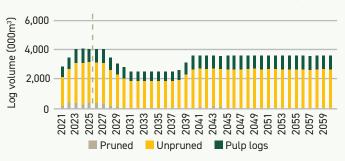


The area of radiata pine forest in the Tasman region is 77,078 hectares, equivalent to 93.6% of the exotic forest species in the region. Other exotic forestry species are: 4.7% Douglas-fir (3,911 hectares), 0.2% cypress (145 hectares), 0.3% eucalyptus (210 hectares), 0.9% other softwoods such as redwoods (768 hectares) and 0.3% other hardwoods such as acacia and blackwood (278 hectares).

The area of radiata pine forest in the Nelson region is 8,280 hectares, equivalent to 94.9% of the exotic forest species in the region. Other exotic forestry species are: 3.1% Douglas-fir (274 hectares), 0.3% cypress (26 hectares), 0.2% eucalyptus (17 hectares), 1.4% other softwoods such as redwoods (120 hectares) and 0.1% other hardwoods such as acacia and blackwood (12 hectares).

Wood Availability Forecast⁴ (WAF)

Figure 7. Wood Availability Forecast (WAF) scenario 3 for Nelson, Tasman, and Marlborough, in 000 m³



Source: WAF 2021.

Figure 7 shows the estimated availability of pruned, unpruned and pulp logs between 2021 and 2060, for the region. Wood availability is forecast to decline in 2029 to a low of 2.5 million $\rm m^3$ where it may remain until 2038 when it is estimated to grow once again, plateauing for this forecast at 3.6 million $\rm m^3$.

Source: WAF August 2021 - Scenario 3 - Canopy

Markets⁴

Figure 8. Percentage of exports vs domestic processing of logs for Nelson Tasman and Marlborough in



2023. Source: Levy trust data 2023.

In 2023 in Nelson, Tasman, and Marlborough:

- 1,469,280 tonnes (48%) of logs were exported from Port Nelson and Port Marlborough combined and 1,602,020 tonnes (52%) went to sawmills registered in the regions.
- Nelson port exported 5.3% of national log exports (1,051,398 tonnes).
- 1,362,935 tonnes of logs went to sawmills registered in Nelson Tasman and Marlborough regions contributing to 12.1% of the total log volume processed domestically.

Source: Levy Trust data for year ended December 2023.

^{3.} Data for NEFD forest owner national size class has been combined for the two regions.

^{4.} The Wood Availability Forecast, Quarterly Production Statistics, Forest Growers Levy Trust data, and Workforce data combines the Nelson and Tasman Region's with Marlborough.

^{1.} Land Cover Database (LCDB5) - 2018

^{2.} The <u>2023 National Exotic Forest Description (NEFD) – MPI</u> provides a detailed description of New Zealand's planted production forest.

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Forestry and wood processing supply chain

Nurseries

There are at least 7 nurseries across the Nelson and Tasman regions producing native and non-native species.

Wood processing 4

There are 11 major wood processing plants in the Nelson, Tasman and Marlborough regions with an output of more than 1.6 million m³ per annum, of sawn timber and panels.

In 2023, Nelson, Tasman and Marlborough:

produced 328.365 m³ of sawn timber. This is 9% of New Zealand's total sawn timber 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. Production statistics classify Tasman under the region of Nelson Marlborough.

Woody Biomass

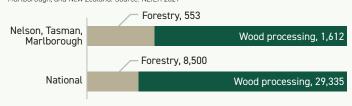
Nelson, Marlborough and Tasman region have been using woody biomass in the decarbonising of industrial and commercial processes for heat generation, Energy Efficiency and Conservation Authority (EECA) has estimated that there are over 300,000 tonnes of woody biomass being utilised for bioenergy generation in the Nelson, Tasman and Marlborough regions each year. The woody biomass is sourced from harvest and wood processing residues. It is used in boilers to generate heat and power for wood processing, to heat greenhouses in horticulture, and by Azwood Energy who collect residues locally to turn into solid biofuels such as woodchips and pellets for local and regional clients.

It is estimated that there is around 337,000 tonnes per annum of surplus woody biomass which could be utilised for energy generation in the region. The majority of this is from harvest residues (272,000 tonnes). EECA have suggested the region has significant scope to increase the use of energy generation from woody biomass.

Sources: Nelson, Marlborough, Tasman RETA | EECA

Workforce4

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



^{4.} The Wood Availability Forecast, Quarterly Production Statistics and Forest Growers Levy Trust data, and Workforce data combines the Nelson and Tasman Region's with Marlborough.

In 2021, the potential workforce in the region was 69,800 people, 62% (43,586) 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. Of these, 0.8% (553 people) worked in forestry and 2.3% (1.612 people) in wood processing.

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

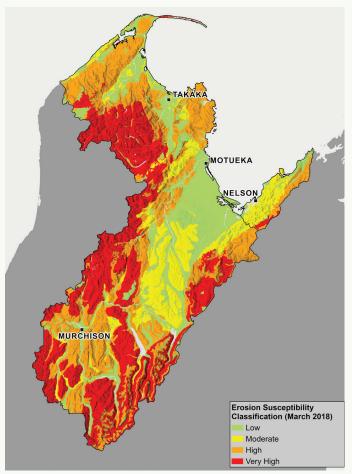
Erosion

Using the ESC (Erosion Susceptibility Classification), 33.6% (323,669 hectares) of the Tasman region's land is classified as very highly susceptible to erosion with an additional 32.6% (314.064 hectares) of the land classified as at high susceptibility. In Tasman, 79% of the land that is classified as very high susceptibility and 66% of the land classified as high susceptibility to erosion, is covered by indigenous forest.

Nelson's erosion profile, 4.7% (1.977 hectares) classified as very high susceptibility, 6.3% (11,056 hectares) classified as high susceptibility and 49.3% (20,693 hectares) of the land in the region classified as moderate susceptibility. In the Nelson Region, just under a third (29%) of land that is of very high susceptibility to erosion is covered in indigenous forest, and over half (56%) of land at high susceptibility is covered in indigenous forest with a further quarter of high susceptibility land (25%) covered in exotic forest.



Figure 10. Erosion Susceptibility Classification (ESC), Source: MPI. View a high-resolution version of the Nelson and Tasman Erosion Susceptibility Classification map



Specialist Wood Processing

These regions have the highest concentration of specialist wood processing in New Zealand, especially for laminated and structural wood products. Growing a high proportion of structural timber in the regions. An example of this industry is the redevelopment of the Nelson Airport which used structural wood products as a primary building material in the visible structural beams, and columns. 440 m³ of local timber was used in the project. The timber was milled locally and transformed into laminated veneer lumber.

Source: Nelson Airport, Nelson Tasman Forestry Sector Profile

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Biodiversity, Indigenous Forests and Ecosystems

Combined 62% of the Nelson and Tasman regions are covered in indigenous vegetation (forest and scrub for example kānuka, not including grassland i.e. tussock), Nelson has 44%, Tasman is 63%. More than half of the land in the Tasman region is protected public conservation land in steep mountainous terrain. The Tasman region has the largest and most diverse range of limestone and marble landscapes in the country, with some supporting distinct populations of tree species. For instance, in the Kahurangi National Park, beech dominates much of the higher altitude land, but in lowland areas there remain remnants of original mixed broadleaf and podocarp forests, along with saltmarsh and wetlands including Mangarakau Swamp, and the internationally significant wetland of Farewell Spit, one of only seven Ramsar recognised wetlands in the country.

The Nelson region, though significantly smaller than the Tasman region, includes a rich diversity of ecosystems stretching as it does from Cape Soucis in the North and the Waimea Inlet in the South, and includes lowland and coastal forests, estuaries, dunes, streams, rivers, and the mineral belt of the Dun Mountain Range. Both the Tasman and Nelson regions support rare species including Powelliphanta snails, green gecko, native bats, and the Kakariki parrot. The 3,462 hectares Waimea Inlet links the two regions, and though extensively modified still retains 33% indigenous forest. It is home to internationally significant migratory bird species including bartailed godwits, white herons, spoonbills and the Australasian bittern. Te Uru Rākau – New Zealand Forest Service supports the restoration of the Waimea Inlet through a 1BT grant to the Tasman Environmental Trust.

Source: Waimea Inlet Billion Trees Phase Two project updates | Tasman District Council

Peneāmine Restoration Project

The Peneāmine Restoration Project aims to restore a wetland ecosystem in the Maitai Valley, Nelson. The Project is managed by Ngāti Koata Trust, who are the landowners, with the support of Te Uru Rākau, Tasman Pine Forest, Nelson City Council, Ministry for the Environment, and the Department of Conservation. The project was boosted by Jobs for Nature funding, and has planted approximately 10,000 natives, including Rongoa species, over three years, funded from the Matariki tu Rākau fund. The area is popular with mountain bikers and is within an active forestry site. Despite damaging floods that occurred in the catchment in August 2022, work continues with the removal of pest trees and a further 5,000 trees to be planted in 2024. The nearby Tekateka restoration project, also managed by Ngāti Koata on the Trust's land, is tackling historical weed burdens in the mature forest on the slopes above Peneāmine, and controlling animals, to help ensure that Peneāmine thrives into the future.

Peneāmine is part of the wider Project Mahitahi initiative, which falls within the suite of restoration projects in Te Tauihu supported by Kotahitanga mō te Taiao Alliance.

Source: KMTT Projects Dashboard (arcgis.com)

Steepland Harvesting Initiative

In 2010, the Steepland Harvesting Primary Growth Partnership was set up to invest in the development of innovative forestry machinery across New Zealand to reduce cable logging costs, make harvesting jobs safer as well as expanding the machinery manufacturing sector. Jointly funded by Future Forests Research Ltd (now Forest Growers Research, \$3.93 million) and Ministry for Primary Industries (MPI) (\$3.68 million), the programme saw several Nelson and Tasman businesses develop new machinery. Some of these included the ClimbMAX a steep slope harvester which improves the tractive capacity of ground-based felling machinery on steep slopes. The Falcon Claw, and Winch assist, and the HarvestNav navigation units. The region's innovation in machinery has helped promote a safer logging industry and has seen machinery use spread across New Zealand and internationally.

Sources: Steepland Harvesting Programme (fgr.nz)

Government funding

One Billion Trees: As of December 2023, \$349,565 in funding has been approved for partnership grants in Nelson with a total of 77.8 hectares being planted. As of December 2023, \$4.8 million in funding has been approved for direct landowner and partnership grants in the Tasman Region with 426 hectares in Tasman 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, \$2.32 million in funding has been agreed. Between 2019 and 2023, the funding helped protect over 80 hectares of erosion-prone land in Nelson. The funding supported mainly native (indigenous) reversion projects to retire some of the most vulnerable forestry and farmland.

Tasman has had \$0.74 million in funding agreed. Between 2019 and 2023, the HCE Programme helped protect 94 hectares of erosion-prone land in Tasman. The funding supported a native (indigenous) reversion project to retire areas of the most vulnerable areas of "Separation Point Granite" forestry land.

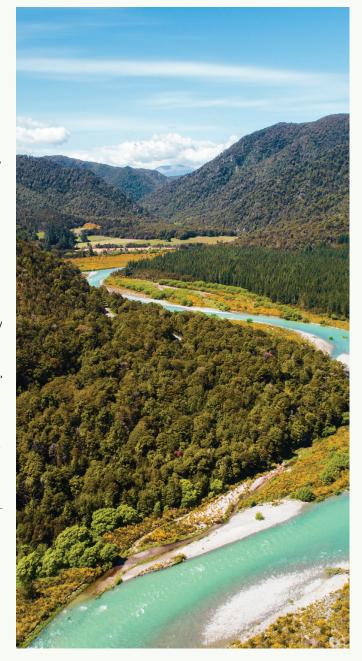
The HCE Programme is a partnership between MPI, councils and landowners to support regional erosion-control projects. <u>Hill Country Erosion Programme for councils – MPI.</u>

Indigenous forestry

Up to 2022, rimu was the indigenous species with the most volume delivered to mills in the region.

Table 3. Log volumes in m³ delivered to mills in 2022 in Nelson and Tasman. Source: Indigenous Forestry - MPI.

	rimu	red beech	silver beech	tōtara	hard beech	mātai
m3	1,765.9	905.1	837	392.2	371	213.5



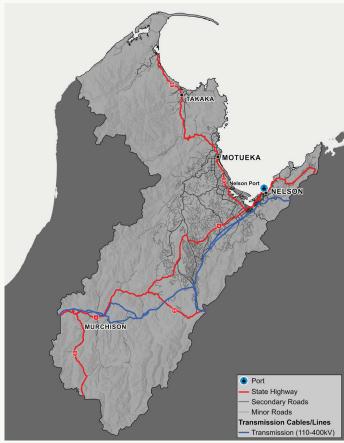
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Infrastructure

Figure 11. Map of key infrastructure across Nelson and Tasman.

View a high-resolution version of the infrastructure map in Nelson and Tasman.



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 6 (SH6) connects Nelson to Marlborough to the east with SH6, after Nelson SH6 turns south passing through Tasman as it connects to the West Coast/Te Tai Poutini. State Highway (SH60) connects Nelson to Tasman traversing along the Tasman Bay/Te Tai-o-Aorere to the northwest parts of Tasman including Motueka, Abel Tasman National Park, Golden Bay, and Farewell Spit. State Highway 63 connects Tasman to Marlborough in the east. State Highway 65 connects State Highways 6 and 7.

Electricity

Transpower owns the transmission lines in the region which consist of:

- · one 110 kV double circuit tower line;
- one 120 kV single circuit pole;
- · one 220 kV double circuit tower line;
- three 50/66 kV single circuit poles;
- two 50/66 single circuit tower lines.

There are four substations in the region Stoke near Nelson, then Motueka, Upper Takaka, and Motupipi in Tasman.

Power is primarily generated in the region by Cobb hyrdroelectric (34.3 MW), operated by Manawa Energy.

Port Nelson

Port Nelson is jointly owned by the Nelson District Council and Tasman District Council. The port activity is primarily exports with 67% of the total volume of goods being exports whilst 33% are imports. As production in the region focusing on forestry products, seafood, pip fruit and wine, all of which are exported through the port. The port offers bulk cargo, containerised and cruise ship services.

Table 4. Port Nelson export volumes and value (Free on Board - FOB) for forestry and wood products for year ending December 2023.

Product	Unit of measure	Volume	Value - FOB (NZD)
Logs	Cubic metre	1,144,781.2	\$169,484,768
Panels	Cubic metre	180,572.0	\$127,611,948
Sawn timber & sleepers	Cubic metre	44,977.9	\$21,267,220
Other forestry products	Mixed	3,229.6	\$1,085,782
Paper & paperboard	Mixed	594.3	\$285,868

Source: Overseas Merchandise and Trade

In 2022, an upgrade of the log yard centralising it into one area of the Port Nelson, this increased log capacity at the Port by 30%. The upgrade also has improved dust, sediment and wastewater control making it safer for workers and the environment. There are currently no debarking facilities at the Port.

Rail

Nelson is one of five New Zealand urban centres without rail links. Similarly, Tasman also does not have rail links. The closest rail links are in the Marlborough region to the east.

Sources: Port Nelson, Transpower, Contact Energy, Genesis Energy, Manawa Energy, New Zealand Transport Agency / Waka Kotahi.

Useful links

Forestry

New Zealand forest data - MPI

Afforestation and deforestation intentions survey 2022 - MPI (PDF, 943 KB)

Nelson Tasman Insights Forestry Sector Profile

Tasman District Overview - New Zealand Farm Forestry Association

Plantation forestry activity | Tasman District Council

Forestry - Nelson City Council

Top of the South Forests - Top of the South Wood Council

Wood processing

Invest in New Zealand wood processing (March 2020) - NZTE

Regional statistics

Place Summaries | Tasman Region | Stats NZ

Place Summaries | Nelson Region | Stats NZ

Regional economic activity report - Tasman - MBIE

Regional economic activity report - Nelson - MBIE

Te Tauihu - Top of the South | NZ Transport Agency Waka Kotahi

Top of the South / Te Tau Ihu | Kanoa Grow Regions

Long term plan and annual plan | Tasman District Council

Long Term Plan 2021-2031 - Nelson City Council

Climate and Weather of Nelson and Tasman - NIWA

Feedback

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