



annual report
supplementary data tables
2016/17

PROUDLY GROWING TASMANIAN TIMBER



Forestry Tasmania

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The tables and graph in this document support the statements made in Forestry Tasmania's Annual Report 2016/17. The section numbering below aligns with the chapters in the Annual Report.

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1 Make available agreed wood volumes to underpin a sustainable Tasmanian forest industry

1.1 Land reservation in Tasmania by Forest Type

| | Tasmania | | | Publicly managed land ³ | | | PTPZ ⁴ land | | | | |
|--|--------------|---------------|------------|------------------------------------|---------------|------------|------------------------|---------------|------------|----------------|------------|
| | Total Tas | Area reserved | | Total publicly managed land | Area reserved | | Total PTPZ land | Area reserved | | Non-production | Production |
| Forest type ¹ ('000's hectares) | (ha) | (ha) | % | (ha) | (ha) | % | (ha) | (ha) | % | (ha) | (ha) |
| Tall native Eucalypt forest: Eucalypt forest with current or potential height of 34 metres or more | 892 | 456 | 51% | 739 | 443 | 60% | 333 | 47 | 14% | 68 | 218 |
| Short native Eucalypt forest: Eucalypt forest with current or potential height of less than 34 metres | 1,496 | 748 | 50% | 857 | 682 | 80% | 184 | 34 | 18% | 45 | 106 |
| Rainforest: Cool temperate rainforest with no significant <i>Eucalypt</i> or <i>Acacia</i> spp. | 554 | 491 | 89% | 537 | 490 | 91% | 62 | 17 | 27% | 25 | 19 |
| Other native forest: Including <i>Acacia</i> , <i>Melaleuca</i> spp. etc. | 155 | 93 | 60% | 124 | 91 | 73% | 38 | 8 | 21% | 18 | 12 |
| Hardwood plantation | 223 | 0 | 0% | 56 | 0 | 0% | 54 | 0 | 0% | 0 | 53 |
| Softwood plantation | 76 | 1 | 1% | 54 | 1 | 2% | 53 | 0 | 0% | 0 | 53 |
| Non forest ²: Including scrub, moorland, farmland, rock and lakes | 3,405 | 1,565 | 46% | 1,770 | 1,543 | 87% | 88 | 16 | 18% | 52 | 21 |
| Total | 6,799 | 3,365 | 49% | 4,137 | 3,253 | 79% | 812 | 126 | 16% | 204 | 482 |

Notes:

- All areas are rounded to thousands of hectares. Figures in the 'Total' rows are not the sum of the columns but the rounded actual totals.
- The areas for forest are derived from detailed forest type mapping, which is continually updated. Generally, mapping on PTPZ land is updated annually, but remapping of other tenures is less frequent.
- Areas reported in this table include land, inland waterbodies and islands. Macquarie Island, sea and marine estuaries are excluded.

1. Private property forest areas are as advised by Private Forests Tasmania (PFT), and generally reflect forest mapping as at December 2014.
2. Because this table is derived from the spatial integration of several independently compiled datasets, some spatial discrepancies have been inherited. Areas where neither PFT nor FT forest data extends to the DPIPWE coastline are recorded as Non forest.
3. 'Publicly managed land' includes land owned by, or vested in, the HEC, Forestry Tasmania and Commonwealth & Tasmanian Governments; municipal reserves; and municipal and private lands managed by the Wellington Park Management Trust.
4. Permanent Timber Production Zone land as defined under the *Forest Management Act, 2013*.

1 Make available agreed wood volumes to underpin a sustainable Tasmanian forest industry

1.2 Area of special management zones in wood production areas on PTPZ land

| Special Value | Area (ha) |
|------------------------|-----------|
| Biodiversity | 23,120 |
| Cultural heritage | 10,270 |
| Geoconservation values | 43,900 |
| Landscape | 43,010 |

Notes:

- Rounded to nearest 10 hectares.
- An area may hold multiple special values.
- Special management zones are defined as per Forestry Tasmania's Management Decision Classification system.

1.3 Plantation area (hectares)

| SW: softwood HW: hardwood Ownership | Net area of plantation | |
|---|------------------------|---------------|
| | SW | HW |
| Forestry Tasmania (FT) plantation on PTPZ land ¹ | 2,698 | 46,873 |
| FT joint venture plantation on PTPZ land ^{1,2} | 7,441 | 4,119 |
| FT joint venture plantation on private land | 97 | 188 |
| Tassie Trees Trust plantation on PTPZ land ³ | 304 | 641 |
| FT plantation on private land | 0 | 221 |
| Private plantation on PTPZ land ⁴ | 43,816 | 1,168 |
| Total 2016/17 ⁵ | 54,356 | 53,210 |
| (Total 2015/16) ⁵ | 53,284 | 57,108 |

Notes:

- Figures exclude plantation areas clearfelled but not yet re-planted.
- The majority of mixed hardwood/softwood plantations are reported as hardwood.

1. Includes small areas of plantations on other Crown land (Buckland Military Training Area).
2. Includes softwood plantations jointly owned with Norske-Skog, for which data is supplied by Norske-Skog as at 1st June 2017.
3. Tassie Trees Trust plantations are mainly jointly-owned with private growers, but include small proportions owned solely by FT.
4. Includes softwood plantations which are owned by New Forests P/L, for which data is supplied by Timberlands Limited as at 30th June 2016.
5. Figures in the total rows are not the sum of the columns but the rounded actual totals.

1 Make available agreed wood volumes to underpin a sustainable Tasmanian forest industry

1.4 Native forest regeneration success (hectares)

| Forest Type | 0-9% (not stocked) | 10-39% (ecological stocking) | 40-64% (low wood quality) | 65-84% (optimum) | 85-100% (maximum) | Total |
|---|--------------------|------------------------------|---------------------------|---------------------|-------------------|--------------|
| Dry eucalypt ¹ | 0 | 0 | 68 | 206 | 53 | 327 |
| Wet eucalypt ¹ | 0 | 0 | 83.89 | 1599 | 1070 | 2753 |
| High altitude <i>E. delegatensis</i> ¹ | 0 | 0 | 78.05 | 869 | 124 | 1071 |
| Fenced intensive blackwood ¹ | 0 | 0 | 0 | 73 | 125 | 198 |
| Swamp blackwood ² | 0 | 0 | 0 | 19 | 0 | 19 |
| Rainforest ² | 0 | 0 | 0 | 0 | 0 | 0 |
| Huon pine forest ² | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 230 | 2,766 | 1,372 | 4,368 |
| | | | | % Area met standard | | 96.3% |

Notes:

1. Reported three years after regeneration treatment.
2. Reported five years after regeneration treatment.

3 Sustainably manage Tasmania's public production forests to maintain wood resources and other environmental, cultural and economic values

3.1 Area of plantation identified as having moderate or severe damage (hectares)

| Eucalyptus plantations: | 2013/14 | | 2014/15 | | 2015/16 | | 2016/17 | |
|----------------------------|----------|--------|----------|--------|----------|--------|-------------------|---------------------|
| | Moderate | Severe | Moderate | Severe | Moderate | Severe | Moderate | Severe |
| Soil fertility/site issues | 52 | 529 | 25 | 303 | 0 | 8 | 0 | 0 |
| Insect damage | 3,866 | 967 | 1,340 | 272 | 1,334 | 55 | 1608 ¹ | 228 |
| Multiple causes | 274 | 688 | 835 | 1,070 | 1,545 | 409 | 424 ² | 227 |
| Climate / environmental | 101 | 51 | 128 | 72 | 74 | 38 | 62 | 127 |
| Unknown | 43 | 457 | 0 | 9 | 20 | 0 | 0 | 1 |
| Silvicultural | 0 | 88 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mammal damage | 0 | 88 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fungal diseases | 43 | 0 | 232 | 570 | 156 | 0 | 22 ³ | 0 |
| Weeds | 27 | 1 | 111 | 1 | 0 | 1 | 0 | 21(32) ⁴ |

Notes:

1. Low leaf beetle populations were recorded for the third year in a row during monitoring in the north of the state. However, warm late-summer weather may have seen the emergence of unseasonably late populations after the monitoring program had finished resulting in significant defoliation in localized areas. There was also more Gonipterus defoliation in the south of the state than has been seen in a number of years, with 411 hectares of moderate damage recorded.
2. Damage across 301 hectares of the "multiple causes" category was due to epicormic development in thinned plantations. This was triggered by a combination of stressors, including fungal/insect defoliation and environmental conditions.
3. The prevalence of foliar fungal pathogens continued to decrease following a return to more normal summer rainfall.
4. The first figure represents the area of issues such as intra-plantation competition from native weeds; the figure in brackets is the number of new records for declared/environmental weeds on Permanent Timber Production Zone land managed by Forestry Tasmania for 2016/17.

3 Sustainably manage Tasmania's public production forests to maintain wood resources and other environmental, cultural and economic values

3.2 Leaf beetle IPM system results

| Leaf beetle IPM system | 2014/15 | 2015/16 | 2016/17 |
|---|---------|---------|-------------------|
| Area monitored (ha) | 11,288 | 9,291 | 8075 ¹ |
| Area monitored that is above threshold (ha) | 737 | 779 | 690 |
| Area monitored above threshold treated with alpha-cypermethrin (ha) | 451 | 558 | 585 |
| Area monitored above threshold treated with spinosad (ha) | 0 | 0 | 0 |
| Total area treated (ha) | 451 | 768 | 585 |
| Area monitored above threshold-natural controls (ha) | 58 | 103 | 55 |
| Area monitored above threshold not treated (ha) | 228 | 118 | 50 ² |
| % monitored area sprayed | 4% | 8% | 7% |
| Proportion area sprayed with spinosad: cypermethrin | 0 | 0 | 0 |

Notes:

1. The total area monitored decreased in 2016/17 due to good crown health resulting from the previous year's low beetle populations, and gradual removal of older coupes from the program.
2. One coupe reached the threshold for control several weeks after spraying operations were completed on other coupes. It was an isolated coupe which was uneconomic to spray on its own.

3 Sustainably manage Tasmania's public production forests to maintain wood resources and other environmental, cultural and economic values

3.3 Pesticide usage in forestry field operations

| | | 2014/15 | 2015/16 | 2016/17 |
|---------------------|-------------|----------------|---------------|--------------|
| Active ingredient | Type | kg applied | kg applied | kg applied |
| Glyphosate | Herbicide | 1,489.6 | 1357.1 | 583.6 |
| Triclopyr | Herbicide | 5.4 | 75 | 0.1 |
| Alpha cypermethrin | Insecticide | 11 | 18.8 | 14.7 |
| Clopyralid | Herbicide | 0.7 | 0.075 | 0 |
| Halixyop - methyl | Herbicide | 0 | 0 | 0 |
| Mesulfuron methyl | Herbicide | 4.8 | 5.178 | 3.9 |
| Terbacil | Herbicide | 0 | 0 | 0 |
| Sulfometuron methyl | Herbicide | 0 | 0 | 0 |
| Picloram | Herbicide | 0.8 | 0 | 0 |
| Aminopyralid | Herbicide | 0.7 | 0 | 0 |
| Hexazinone | Herbicide | 0 | 0.12 | 0 |
| Permethrin | Herbicide | 0.2 | 0 | 0 |
| Total active | | 1,513.3 | 1456.3 | 602.3 |

3.4 Fertiliser usage on forestry operations¹ - by nutrient type

| | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2016/17 |
|-------------------|---------------------------------|-------------|------------|------------|----------|
| Nutrient type | Amount of active ingredient (t) | | | | |
| Nitrogen | 18.2 | 56.9 | 7.7 | 0.66 | 0 |
| Phosphorus | 7.9 | 3.1 | 0.25 | 0.145 | 0 |
| Potassium | 0.5 | 0.5 | 0.71 | 0.41 | 0 |
| Copper | 0 | 0 | 0 | 0 | 0 |
| Total | 26.6 | 60.5 | 8.6 | 1.2 | 0 |
| Area treated (ha) | 517 | 1,172 | 405 | 184 | 0 |

Note:

1. On Forestry Tasmania's Defined Forest Area.

3 Sustainably manage Tasmania's public production forests to maintain wood resources and other environmental, cultural and economic values

3.5 Summary of energy useage and resulting CO₂-equivalent emissions as a result of fuel used for transport and electricity useage within our offices for 2016/17

| Source | Usage | CO ₂ -e ¹ |
|--------------|--------------------------|---------------------------------|
| Unleaded | 12,102 litres | 27,986 |
| Diesel | 342,379 litres | 926,562 |
| Oil | 3,314 litres | 9,715 |
| Electricity | 1,487,038 kilowatt hours | 178,445 |
| Total | | 1,142,708 |

Notes:

1. Estimates based on Australian Government Department of Climate Change, 2016. National Greenhouse Accounts Factors, www.climatechange.gov.au

4 Actively engage with stakeholders to build trust and inform decision making

4.1 Stakeholder interaction summary

| Stakeholder Groups | 2014/15 | | 2015/16 | | 2016/17 | |
|--------------------|------------|--------------|------------|--------------|------------|--------------|
| | Events | Stakeholders | Events | Stakeholders | Events | Stakeholders |
| Community | 495 | 691 | 252 | 834 | 108 | 887 |
| Neighbours | 146 | 236 | 138 | 321 | 96 | 376 |
| Commercial Users | 121 | 178 | 118 | 212 | 53 | 231 |
| Environmental | 112 | 149 | 131 | 265 | 35 | 181 |
| State government | 72 | 219 | 79 | 175 | 38 | 252 |
| Recreational | 120 | 189 | 67 | 240 | 53 | 290 |
| Industry | 66 | 140 | 48 | 167 | 24 | 176 |
| Tourism | 52 | 87 | 74 | 139 | 31 | 148 |
| Business | 32 | 103 | 44 | 360 | 29 | 141 |
| Scientific | 39 | 112 | 36 | 125 | 21 | 126 |
| Local government | 41 | 253 | 22 | 169 | 28 | 371 |
| Customers | 34 | 162 | 38 | 129 | 12 | 182 |
| Aboriginal | 19 | 63 | 35 | 380 | 11 | 67 |
| Educational | 29 | 93 | 18 | 126 | 15 | 383 |
| Contractors | 25 | 121 | 10 | 64 | 11 | 128 |
| Media | 13 | 25 | 14 | 30 | 6 | 31 |
| Federal government | 7 | 25 | 12 | 27 | 10 | 33 |
| Suppliers | 13 | 25 | 18 | 29 | 10 | 27 |
| Total | 978 | 2,326 | 657 | 3,039 | 387 | 3,239 |

Notes:

Does not include routine operational notifications.

4.2 Education, research and community funding

| Contributions to forest education | value (\$) |
|--|----------------|
| Forest Education Foundation | 204,000 |
| Research funding | |
| University of Tasmania | 120,000 |
| State Fire Commission (Contribution to Bushfire CRC Program) | 31,200 |
| Community sponsorship | |
| Design Centre Tasmania | 10,000 |
| Timber Communities Australia | 3,000 |
| Tasmanian Symphony Orchestra | 2,500 |
| Enduro World Series (Derby) | 10,000 |
| Total | 380,700 |

Note: Figures are GST exclusive

6 Provide a safe, healthy and productive workplace

6.1 Safety statistics

| Employment | 2013/14 | 2014/15 | 2015/16 | 2016/17 |
|---|---------|---------|---------|---------|
| Number of direct employees (Head count not FTE) | 295 | 241 | 190.42 | 147 |
| Safety | | 2014/15 | 2015/16 | 2016/17 |
| Number of workers comp claims | | 21 | 6 | 10 |
| % of gross wages | | 0.13 | 0.02 | 0.08 |
| Lost time injury frequency rate(LTIFR) | | 19.61 | 2.41 | 8.72 |
| Medical Treatment Injury Frequency Rate (MTIFR) | | N/A | 12.04 | 20.35 |
| Harvesting Contractors LTIFR | | 11.84 | 8.16 | 15.61 |
| SAFETY | | 2014/15 | 2015/16 | 2016/17 |
| LTIFR | | 19.61 | 2.41 | 8.72 |

Note:

1. FT has reviewed safety statistics we used and decided it will be better measured by Medical Treatment Injury Frequency Rate (MTIFR). As a result, FT is no longer using the previous two measures of statistics which include Lost Time Injury Severity Rate and All Claims Frequency Rate.