

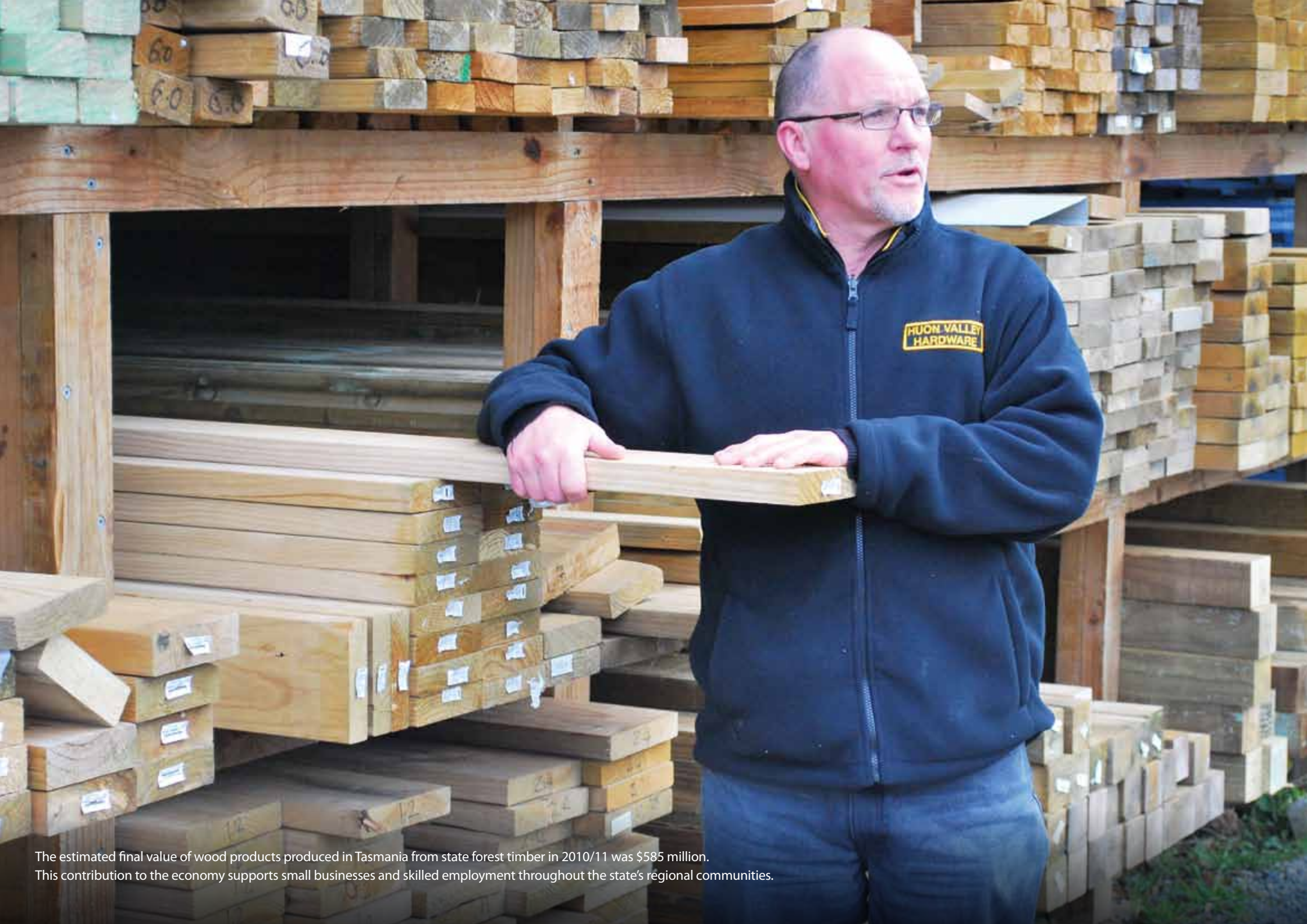


2010-11

stewardship report



Forestry Tasmania



The estimated final value of wood products produced in Tasmania from state forest timber in 2010/11 was \$585 million. This contribution to the economy supports small businesses and skilled employment throughout the state's regional communities.

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We continued to grow Chinese markets for our structural peeler logs in 2010/11. This export strategy is part of our long-term plan to build demand for Tasmanian eucalypt and attract investment in domestic value-added processing.

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Front cover: Native forest timbers have, until now, been the key source of Tasmanian wood products for high-end uses such as furniture and joinery. However, heading into the future, we are planning for less availability of native forest timber and a greater reliance on plantation timber to meet resource demand. Dion McKenzie, Division of Forest Research and Development, is pictured here with plantation-grown *Eucalyptus nitens* logs. During 2010/11, these logs were used in a collaborative trial undertaken by Britton's Timber and Forestry Tasmania to determine whether they were suitable for use as high quality sawlogs. If the trial is successful, timber such as this may also, in years to come, be used for valuable products such as furniture.



report card 2010/11

This is an overview of our performance for 2010/11 as measured against the objectives and aims of our Sustainability Charter. It also includes performance against our corporate objectives, which are as follows:

- embrace science to achieve best practice environmental stewardship and maintain Australian Forestry Standard Certification;
 - create long-term business and employment opportunities for the community by managing the forests for multiple use and encouraging downstream processing;
 - achieve positive financial returns through sound, ethical business practice; and
 - build community trust through honest dialogue.
- ✓ Positive performance as based on progress against our targets and indicators
- X Target not met; more effort is required to improve our performance



We invested over \$4 million in forest research during 2010/11.

Sustaining biological diversity and habitat

- X Good progress continues to be made in the development of alternatives to clearfelling, with partial logging, including variable retention, contributing to 75 per cent (1,020 hectares) of the total old growth area harvested (1,370 hectares). However, we did not fully achieve the Tasmanian Community Forest Agreement target to achieve non-clearfell silviculture in a minimum of 80 per cent of the annual old growth harvest area by this year, due to the uncertainties in the operating environment. We aim to achieve the target in 2011/12.
- ✓ Partial harvesting continues to make up an increasingly large amount of the total area of forest harvested. In 2010/11 we harvested a total of 10,300 hectares, of which 6,980 (67 per cent) was partially harvested and 3,370 (33 per cent) was clearfelled.
- ✓ We undertook seven research projects that specifically covered threatened species of flora and fauna.
- ✓ Audits showed all 27 authorised activities in forest reserves delivered good social and environmental outcomes.
- ✓ We added five new giant trees to the Giant Tree Register and launched a new giant trees website (gianttrees.com.au).
- ✓ We harmonised our data management systems for threatened species records with those of other agencies, streamlining our assessment processes and enabling better strategic planning.
- ✓ The effectiveness of our Forest Management System was greatly enhanced through rationalising and simplifying document management procedures.
- ✓ We developed a range of initiatives to facilitate strategic planning for threatened species, including tools for ensuring long-term retention of mature forest at the coupe-context scale and assisted the Forest Practices Authority as it developed a suite of new planning tools.

Sustaining jobs for current and future generations

- X We recorded an operating loss of \$12.09 million during a challenging trading year.
- ✓ We recorded an upturn in sales revenue to \$156.5 million, compared with \$135 million the previous year, partly as a result of increased forest product sales.
- ✓ We paid suppliers, contractors and employees \$174 million with payments to contractors increasing from \$80.6 million in 2009/10 to \$94.4 million in 2010/11.
- ✓ The estimated final value of wood products produced in Tasmania from state forest timber was \$585 million.
- ✓ We supplied 196,702 cubic metres of high quality sawlog to our customers. This volume is well within the sustainable production level.
- ✓ We supplied 14,477 cubic metres of special timbers sawlog to our customers, consistent with our Special Timbers Strategy.
- ✓ Of the 7,820 hectares of native forest regenerated, 88 per cent (6,880 hectares) met the prescribed standard, which is above our benchmark of 85 per cent.
- ✓ In a sample of 69 harvested areas, we achieved the standard of less than five merchantable tonnes of post-harvest residue per hectare in each coupe.

Sustaining carbon stores, clean air, water and healthy forests

- ✓ We sowed approximately 150 million seeds to regrow harvested forests.
- ✓ There were no major detections of chemicals in waterways resulting from our operations. There was one minor detection (0.5 micrograms per litre) of Metsulfuron-methyl in a waterway. The level was well below drinking water standards (30 micrograms per litre) but still led to a review of procedures.
- ✓ There were no major spillages of fuel or chemical concentrates. One spill was recorded, of 50–100 litres of herbicide spray mix distributed over several hectares, caused by a contractor's broken spray equipment.
- ✓ Our smoke management strategies continued to improve and the number of complaints attributable to smoke from our burning operations decreased. However, we were unable to fully implement our planned burns program partly due to the restrictions of our smoke management strategy.
- ✓ We continued a research program on the location, amount and dynamics of carbon stocks in state forests, and secured funding to build a carbon flux tower that will provide data on the atmospheric exchange of carbon and vegetation at the Warra Long Term Ecological Research site.

Sustaining safety, community access and heritage

- ✗ We were unable to restore access to some recreational areas affected by storm damage.
- ✗ We recorded an unsatisfactory Lost Time Injury Frequency Rate of 9.5 against our performance measure of 8.
- ✓ Our staff attended 357 community forums and meetings with stakeholders.
- ✓ We provided approximately \$80,000 in sponsorship under agreements made in the previous financial year to organisations and individuals under the Forestry Tasmania-Southern Cross Community Assist.
- ✓ We provided \$214,000 in sponsorship to the Forest Education Foundation as part of our Community Service Obligation to fund educational programs.

Sustaining science-based stewardship

- ✓ Our research staff authored 45 technical reports and 25 peer-reviewed papers, made 15 conference presentations, maintained the Warra Long Term Ecological Research site, hosted nine lunchtime talks and led numerous field days.
- ✓ We achieved a performance rating score of 3.8, which represents an 'above sound' result in the external audits of our Forest Practices Plans conducted by the Forest Practices Authority. This result is above our own performance rating benchmark of 3.5.
- ✓ No notices were issued to Forestry Tasmania under Section 41 of the *Forest Practices Act 1985*.
- ✗ One notice was issued to Forestry Tasmania under the *Workplace Health and Safety Act 1998*. This related to several minor issues at the Huon Wood Centre Merchandiser site, which were subsequently addressed to Workplace Standards satisfaction.
- ✓ We retained our Australian Forestry Standard certification following a stringent external audit. The audit identified one major non-conformance related to our contractor management system, which has now been addressed.
- ✓ We invested \$4,030,000 in forest research.

The year AT A GLANCE

Year at a glance 2011

	2008/09	2009/10	2010/11
Forest estate ('000 hectares) at 30 June			
Total state forest (includes forest reserves) ¹	1,492	1,490	1,490
Total forest reserves	222	222	222
Total plantations ²	107	107	109
Area certified to Australian Forestry Standard ³	1,439	1,439	1,441
Forest areas established ('000 hectares)⁴			
Native forest regenerated	11.3	9.2	8.1
Hardwood plantations established (includes replanting)	3.2	1.4	0.7
Softwood plantations established (including replanting)	1.3	1	0.9
Native forest area harvested ('000 hectares)⁴			
Clearfell, selective harvesting and thinning ^{5,6}	12.4	8.7	10.5
Wood production			
Hardwood – high quality sawlog (m ³)	245,154	210,538	196,702
Hardwood – sawlog, veneer and peeler – all grades (m ³)	522,600	559,888	691,103
Hardwood – pulpwood (tonnes)	2,005,450	1,388,986	1,376,554
Hardwood – plantation pulpwood (tonnes)	135,550	179,495	171,205
Softwood – sawlog (m ³)	231,100	252,298	269,985
Softwood – pulpwood (tonnes)	223,220	276,206	353,092
Special timbers sawlog (m ³)	12,497	12,887	14,477
Fire management services			
Number of fires attended	49	65	36
Area of state forest burnt (hectares)	5,277	6,461	375
Cost of suppression (current values \$'000)	1,219	3,701	133
Roads			
Constructed (kilometres)	128	109	104
Employment			
Lost time injury frequency rate	12.5	8.6	9.5
Operating revenues per employee (\$'000)	na ⁷	312	415
Earnings before interest and tax per employee (\$'000)	na	(49)	(64)
Wood production per employee (tonnes)	na	5,179	6,750
Finance (\$'000)^{7,8}			
Return on assets	na	0.70%	1.20%
Operating revenue (including interest)	na	160,119	175,968
Operating expenditure before costs of non-commercial zones	na	(161,323)	(179,307)
Profit (loss) after tax, before other items⁷	na	(12,261)	(12,090)



Minister for Energy and Resources Bryan Green and Managing Director Bob Gordon at the opening of the new Island Speciality Timbers outlet in Smithton.

Notes:

1. Excludes Crown land (Buckland Military Training Area) managed by Forestry Tasmania.
2. Figures exclude plantation areas harvested but not yet replanted and former plantations which are now managed for recreation within Forest Reserves. Includes all plantations in state forests and Forestry Tasmania managed plantations on other land tenures.
3. This area excludes some leases over state forest, and joint venture and leasehold plantations that are not managed by Forestry Tasmania, but may be separately certified.
4. Figures are for operations which were completed during the 2010/11 financial year.
5. Thinning includes both commercial and non-commercial thinning.
6. This data covers forests managed by Forestry Tasmania; it excludes so Forestry Tasmania wood plantation harvesting managed by TPPL and Norske Skog on state forest.
7. Changes in reporting format relating to treatment of unfunded superannuation liability are reflected in 2010–11 and 2010–09 statistics. Comparisons prior to 2010–09 are not available.
8. Full details of the financial statements are provided in Appendix 1.

OUR ORGANISATION

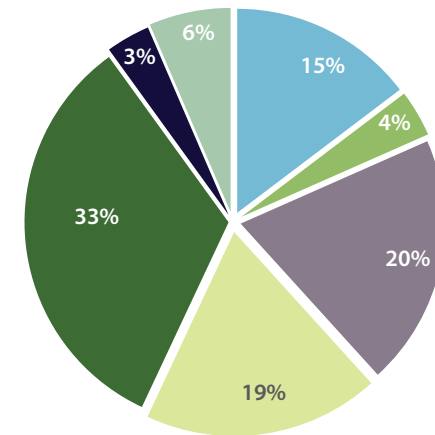
Forestry Tasmania is entrusted by the Parliament of Tasmania with the stewardship of the 1.5 million hectares of state forest on public land within the state. This land contains approximately 39 per cent of Tasmania's forests. Less than half of state forest land (706,000 hectares) is available for wood production, with the rest being set aside for conservation and recreation.

We are a government business enterprise, employing 350 full-time equivalent staff and 975 contractors at 30 June 2011. We have a head office in Hobart and, as of 1 July 2011, four district offices around the state.

In 2010/11, three million cubic metres of sawlog and pulpwood were harvested from state forests for processing into sawn timber, rotary peeled veneer, and pulp and paper products. The estimated final value to the Tasmanian economy of wood products produced from state forest timber was \$585 million in 2010/11.

Land use on areas managed by Forestry Tasmania

(includes Buckland Military Training Area)



- Forest Reserves
- Informal Reserves
- Native forest available for wood production
- Hardwood plantation
- Native forest outside wood production areas
- Softwood plantation
- Special timber zones

OUR PURPOSE

Our vision

Tasmania's state forests will be a globally trusted source of sustainable timber and other forest products and services for this and future generations.

Our mission

Forestry Tasmania manages state forests for optimum community benefit, using environmental best practice to create long-term wealth and employment for Tasmanians.

Our values

- We care for people and their environment.
- We get things done.
- We do what we say we will do.
- We are proud of who we are and what we do.
- We think before we act.

Statement of corporate intent: BUSINESS OVERVIEW

Forestry Tasmania's fundamental statutory responsibility is to manage 1.5 million hectares of state forest, representing 22 per cent of Tasmania's total land area and 39 per cent of its forested land area. Its main undertaking is the sustainable management of Tasmania's state forests to optimise community benefit, including the sustainable production and delivery of forest products and services, the facilitation of new forest-based industries, the conservation of natural and cultural heritage values and the provision of education, recreation and tourism services.

This responsibility is delivered through the following key activities:

(a) management of native forests, hardwood plantations and softwood plantations, including the planning, conduct, monitoring and review of operations to access, assess, establish, tend, protect, monitor, conserve and/or harvest forests; and

(b) supply of forest products and services under negotiated contracts to businesses in Tasmania, elsewhere in Australia and overseas.

In addition to its main undertakings, and the key activities that support them, Forestry Tasmania engages in the following other activities:

(a) 50 per cent part ownership of the Taswood Growers softwood joint venture, comprising a 70-year forestry right over 45,000 hectares of radiata pine plantations on state forest, with GMO Renewable Resources owning the other 50 per cent share, and part ownership of various

other softwood plantation and hardwood plantation joint ventures, e.g. with Plantation Platform Tasmania, Gunns Limited ("Gunns") and Norske Skog;

(b) ownership of Newood Holdings Pty Ltd, established to develop new forest industry infrastructure at the Huon and Smithton Wood Centres;

(c) ownership of Adventure Forests brand and portfolio of commercial tourism properties, Tahune AirWalk and Maydena Adventure Hub, are wholly owned by Forestry Tasmania, Hollybank Treetops Adventure is 50 per cent owned by Forestry Tasmania and Tarkine Forest Adventures is leased to a private operator; and

(d) ownership of Forest Technical Services, providing external consultancy services based on Forestry Tasmania's international reputation as a leader in forest research, forest assessment, forest management and forest product development.

Forestry Tasmania's underlying ethos is sustainability and stewardship. Its forest management activities are certified under the internationally recognised Australian Forestry Standard. Forestry Tasmania operates under specified criteria, in relation to its targets for environmental, economic and social sustainability. These criteria are published in Forestry Tasmania's Sustainability Charter. Forestry Tasmania reports its performance against each of these criteria in its annual Stewardship Report.

For our full Statement of Corporate intent, see Appendix 1: Financial Statements.



corporate GOVERNANCE

The Board of Directors of Forestry Tasmania is responsible for the overall corporate governance of the organisation. This includes setting strategic direction, overseeing financial performance and business affairs, setting management goals and monitoring management performance.

As a fully state-owned government business enterprise, Forestry Tasmania's Board of Directors is responsible to the Shareholder Ministers, who are the Minister for Energy and Resources (the Portfolio Minister) and the Treasurer (the Stakeholder Minister). All current directors have been appointed in accordance with the *Forestry Act 1920* and their responsibilities are outlined in the *Government Business Enterprises Act 1995*. As a result of recent changes in legislation future appointments will be in accordance with the Government Business Enterprises Act. Remuneration for non-executive directors is set by government.

The financial statements included in this report were audited by the Tasmanian Audit Office and were found to accurately reflect the financial position of Forestry Tasmania. In addition, they comply with the Australian Accounting Standards, the Government Business Enterprises Act and the International Financial Reporting Standards. See 'Sustaining jobs for current and future generations' for more detailed information on our forest estate evaluation.

Calculations of the value of our forest estate comply with the Australian Accounting Standard *AASB 141 Agriculture*. This value can fluctuate from year to year due to changes in the variables used in the valuation model.

Our sustainable forest management performance is independently audited against three certification standards: the Australian Forestry Standard (AS4708); the Environmental Management Standard (AS/NZS 14001); and the Occupational Health and Safety Standard (AS4801).

Board of Directors 2010/11

Non-executive Directors

Adrian Kloeden (Chairman) – MSc (BusStudies) Lond, BSc For (Hons) ANU, FAICD.

Deborah Radford – BEc LaTrobe, GradDipFin&Inv SecInstAust.

Humphrey J Elliott – BScFor ANU, DipAgricEnt Syd, PhD Syd.

Miles Hampton – BEc (Hons) Tas, FCPA, FCIS, FAICD.

Geoff Coffey – FCPA, ACIS ACIM, GAICD, Dip FP.

Managing Director

Robert L Gordon – BSc, MIFA, MAICD.

Secretary to the Board

Sue Shoobridge – BCom, FCPA, FAICD.

For full information about corporate governance, board committees, legislative and policy compliance, board performance review and Managing Director's statements, see Appendix 1 – Financial statements (on the attached DVD).



Forestry Tasmania's Board of Directors. L-R Miles Hampton, Bob Gordon, Geoff Coffey, Adrian Kloeden, Deborah Radford. Absent: Humphrey Elliott.

reporting STRUCTURE AND SCOPE

This Stewardship Report combines reporting against the objectives and aims in our Sustainability Charter with our annual financial report to provide a comprehensive analysis of our economic, environmental and social performance.

Information in this report provides a summary of our performance for the 2011/11 financial year. Footnotes are used to clarify data collected on a calendar year basis.

Our Sustainability Charter, launched in November 2008, provides a 10-year framework for the sustainable management of Tasmania's state forests. Accordingly, it also provides the structure to this report.

We expect areas of interest will change over time and the content of the Stewardship Report will be modified year to year to ensure the document remains useful and relevant to our stakeholders. However, the data tables used in this report will continue to be provided in future years, so that long-term trends become apparent over time.

In addition to reporting against the Sustainability Charter, this year we have again chosen to report against the G3 Global Reporting Initiative sustainability reporting guidelines. These voluntary guidelines are recognised throughout the world. Through the self-assessment process, this report fulfils application level 'C' of the Global Reporting Initiative guidelines.

The Global Reporting Initiative content index is available at the end of this report and shows the Global Reporting Initiative indicators against which we have reported, and where this information can be found.

The Stewardship Report covers all the processes and activities involved in the management of state forests. This includes forest land management, road establishment and maintenance, plantation and native forest timber establishment and maintenance, timber harvesting and sales, and tourism and recreation management and development. Where Forestry Tasmania is a joint venture partner, for example, in Taswood Growers (joint venture between Forestry Tasmania and GMO Renewable Resources), Forestry Tasmania's share of the contribution or benefits is specified.

The 'year at a glance' section provides a quick reference to some of this year's statistics. The 'report card' section provides a snapshot of our overall performance, showing the areas where we have been successful in improving our performance and acknowledging those areas where more focus and improvement is required. This is as measured against our sustainable forest management objectives and our corporate objectives.

The majority of the data used in this report have been obtained through internal data sources such as our forest operations database (an in-house asset management system) and through the overlaying of spatial information using our geographical information systems. The remaining data have been obtained from external sources such as the Forest Practices Authority and the Department of Primary Industries, Parks, Water and Environment.

The 2010/11 financial statements and the sustainable forest management data underpinning this report are available as appendices on the DVD accompanying this report, and may also be downloaded from forestrytas.com.au

Read more about the Global Reporting Initiative at:
globalreporting.org



message FROM THE CHAIRMAN AND MANAGING DIRECTOR

Forestry Tasmania's Board, management, employees and stakeholders will all undoubtedly remember the 2010/11 trading year as one of great change. It was, of course, characterised by the negotiations over the Tasmanian Forests Intergovernmental Agreement, and the transitions that agreement conferred on forestry businesses, large and small – not least, Forestry Tasmania.

Truly resilient enterprises are those that understand, and capitalise on, change in their business environments – not those that complain about change. So, in the face of the industry restructure, we are looking ahead to create a strong strategic position that will capitalise on emerging markets for engineered wood products.

We are still working through the full implications of the Tasmanian Forests Intergovernmental Agreement, but we are planning ahead for a future annual resource availability of at least 155,000 cubic metres of sawlog, 265,000 cubic metres of veneer log and 12,500 cubic metres of special timbers, as well as the arisings from that harvest.

As foreshadowed in our last report, a major area of focus for 2010/11 was to build a plan to bring further investment in value-added processing to Tasmania. Launched in August 2011, the *Forestry Innovation Plan* is the successor to the *Forestry Growth Plan* of the 1990s and early 2000s, which saw the development of the Huon and Smithton Wood Centres and, ultimately, Ta Ann's investment in two rotary veneer mills.

The *Forestry Innovation Plan* creates opportunity from the recent uncertainty in the forest sector. It recognises that, whatever area of new reserves is finalised under the Intergovernmental Agreement, it's realistic to plan for a resource mix that comprises less native forest timber and more plantation timber.

At the same time, consumer demand for engineered wood products and renewable energy is predicted to grow over the short to medium term. Already, we are seeing innovative developers using these products to create carbon-neutral buildings, such as Grocon's multimillion-dollar Delta apartment building in Melbourne.

The *Forestry Innovation Plan* articulates a vision to transform Tasmania into a regional hub renowned for state-of-the-art wood products. It's now clear that for the Tasmanian forest industry to survive, and thrive, into the future, we need to expand our vision to encompass far more than traditional sawn timber production and the undifferentiated exports of harvesting and sawmilling residues as woodchips. The way forward is to attract investment in new plantation silviculture, rotary peeled veneers, engineered wood products such as laminated veneer lumber, and renewable energy such as torrefied wood and wood pellets.

Forestry Tasmania has always been an early adopter of new technologies that add value to our business. In the *Forestry Growth Plan*, we identified a better way to do business: to create new products from timber that would otherwise have been classed as pulpwood.

As a result of our vision, Ta Ann had the confidence to invest millions of dollars in our state's timber processing sector, and in doing so, created 138 jobs for Tasmanian people. It processes regrowth timber, which was formerly exported as woodchips, into valuable veneers for flooring and other construction applications. That regrowth timber is the same 265,000 cubic metres of timber now classed as veneer logs under the Intergovernmental Agreement: almost twice the amount of sawlogs now available for processing.

Hopefully the *Forestry Innovation Plan* will encourage others to follow Ta Ann's lead. As we have already demonstrated with the *Forestry Growth Plan*, this new strategy is no experiment. It's an industry-leading policy that will deliver value-added products and jobs from the arisings of our harvest, just as we are now seeing high-quality veneers produced instead of woodchips.

Of course, our other key area of focus in 2010/11 has been managing our business through the financial and political issues that flowed from the previous year's downturn.

message FROM THE CHAIRMAN AND MANAGING DIRECTOR

Our operating environment was shaped by a number of complexities, including the:

- decision of our largest customer, Gunns Limited, to exit value-adding from native forest harvesting and to close its export woodchip mills;
- Statement of Principles negotiations and Tasmanian Forests Intergovernmental Agreement process;
- ongoing effects of the Global Financial Crisis;
- high Australian dollar; and
- Japanese earthquake and tsunami of March 2011.

Of these issues, the one that had the most detrimental effect on our operating result was the closure of the Triabunna woodchip mill. Triabunna was essential infrastructure to the forest industry and, until the change to our new business model under the *Forestry Innovation Plan* is accomplished, it's essential that we have access to export facilities for harvesting residues.

Nevertheless, we spent much of 2010/11 seeking new customers for our structural-quality peeler logs in China and, partly as a result of this, recorded an increase in revenue to \$175.968 million, up from \$160.119 million the previous year. This export trade underpins the development of new markets and products under the *Forestry Innovation Plan*, as these customers are using our pulp logs to manufacture veneers and engineered wood products. Future prospects for sales to China are good, and exports of whole logs will continue until we can attract further investment in value-added processing to Tasmania.

However, the year also saw a corresponding rise in expenses, led by higher transport costs, from \$161.323 million in 2009/10 to \$179.307 million in 2010/11.

Responding to the operating environment, we continued implementing tight cost-control measures during the reporting period. We reduced the number of forestry districts around the state from five to four by merging Mersey District with the operations of Murchison and Bass, effective 1 July 2011.

Overall, we set the goal of reducing the workforce across the organisation to 350 full-time equivalent employees (excluding Adventure Forests staff), through redundancies, early retirement and natural attrition.

These measures contained our operating loss to \$12 million. We forecast an improvement in our financial result for 2011/12.

The 2010/11 reporting period also saw a reduction in the value of our total assets, down from \$296 million the previous year to \$206 million. The valuation, conducted by independent valuer James W Sewall, concluded that the uncertainties over resource supply created by the Intergovernmental Agreement process had reduced the value of our biological asset – the standing timber – by around 30 per cent, or \$90 million.

Our financial result for 2010/11 should be viewed in the context of our wider contribution to the Tasmanian economy. An independent and comprehensive review of our business by the Auditor-General found Tasmania was \$111 million better off with Forestry Tasmania than it would

be without Forestry Tasmania. When the wider economic contribution of the contractors and processors that depend on our timber is considered, the cumulative value of wood products from state forest in 2010/11 was \$585 million. In other words, any suggestion that Forestry Tasmania is being subsidised by the taxpayer is clearly a myth.

The Auditor-General's report, which was as comprehensive as it was independent, took over three years to complete. It covered every aspect of our business: our provision of wood and non-wood products, our financial performance since corporatisation, and our statutory compliance. Amongst its key findings were:

- Of the \$223 million received in State and Australian government funding during the audit period, \$211 million was compensation for productive forests transferred into reserves during the Regional Forest Agreement and Tasmanian Community Forest Agreement. As the Auditor-General clearly noted, these funds were not an operating subsidy. However, as this compensation was invested in plantation development for which would we not see a return for at least 20 years, we must question whether these funds were sufficient compensation for foregone profit.
- Since 1998, we have foregone revenue of \$30–\$40 million in Community Service Obligations not funded by government. This finding provided credible evidence in support of our application, lodged subsequent to the reporting period, for government funding of our Community Service Obligations into the future.

- Forestry Tasmania's operating profit since corporatisation amounts to \$201 million.
- We have paid \$136 million in government taxes and dividends during this period.
- We have invested more than \$414 million in plantations and assets, including \$189 million from our own operating revenues, since corporatisation.

The 2010/11 trading year also saw the commencement of an independent review of our operations by government-appointed consultants URS/Deloitte. The review will examine the likely effects on Forestry Tasmania of reduced resource availability and changed market conditions, and will recommend the best business structure to manage the new operating environment. Forestry Tasmania is cooperating fully with the review, which is due for completion at the end of the 2011 calendar year.

The 2010/11 trading period was one of constant change, which brought new challenges on an almost weekly basis. We look forward to 2011/12 as a year that will bring more certainty and, with it, a greater capacity to plan strategically, to grow our export markets in China, and to foster the business confidence to implement the *Forestry Innovation Plan*.

We thank our shareholder ministers, Premier and Treasurer Lara Giddings and Minister for Energy and Resources and Deputy Premier Bryan Green for their support and encouragement during these challenging times.



Adrian Kloeden
Chairman



Bob Gordon
Managing Director



Steve Whiteley, General Manager Operations, in a rotary veneer mill in China that is processing timber that was formerly exported as woodchips into veneers for engineered wood products. The *Forestry Innovation Plan* is our vision to transform Tasmania into a regional hub renowned for excellence in state-of-the-art of products such as these. Download the plan at forestrytas.com.au

sustaining BIODIVERSITY AND HABITAT



Managing biological diversity is a key part of our role, as reserves on state forests form an important component of Tasmania's reserve system. We also ensure old growth forest, rare communities and habitats and threatened species are maintained outside reserves.

Science informs us that not all values can be represented in any one part of the forest estate at a particular time. Our aim, therefore, is to ensure that these values are maintained across the landscape and various forest age classes.

Reserve system

In state forests the Comprehensive, Adequate and Representative reserve system is made up of formal reserves (known as forest reserves) and informal reserves.

All reserves are zoned for protection under our Management Decision Classification system.

Formal reserves have been proclaimed by Parliament. While the informal reserve system is also used to maintain Comprehensive, Adequate and Representative reserve values identified in the Regional Forest Agreement, its physical configuration may be adjusted to meet forest management requirements, provided the overall level of protection of reserve values is maintained.

Comprehensive, Adequate and Representative reserves provide security for species that might otherwise be disadvantaged by production forestry. They provide continuity of habitat and, for many plants and animals, re-colonisation sources. In this sense, Comprehensive, Adequate and Representative reserves have ecological 'influence' over the surrounding production forest, with the level of influence proportional to the distance from the reserve to the production forest.

Area protected in state forest

Land classification state forest ¹ area (ha)	2006/07	2007/08 ⁵	2008/09	2009/10	2010/11	(%) SF area at 30/06/11
Forest reserves	222,200	222,200	222,100	221,900	221,900	14.7%
Informal reserves	292,400	295,600	298,000	299,100	300,500	19.9%
Outside wood production areas ^{2,3}	292,000	295,500	306,900	278,000	282,800	18.7%
Non-production total ⁴	806,600	813,400	827,000	799,000	807,300	53.4%

Notes:

1. Area includes Buckland Military Training Area managed by Forestry Tasmania.
2. Areas currently not part of the wood resource due to such factors as non-commercial forest, excessive slope, streamside reserves, inaccessibility, etc.
3. Reduction since 2008/09 is as a result of assigning areas to Special Timbers Zones.
4. Figures in total row are not the sum of the columns but the rounded actual totals. Percentages based on actual areas.
5. Some figures amended to include reserved plantations within reserves, rather than production forest.

Over 53 per cent of the state forest estate is primarily managed for the protection of environmental values, including nearly 35 per cent within the Comprehensive, Adequate and Representative reserve system and another 19 per cent that lies outside areas identified for timber production.

State forest activity assessments

Activities in forest reserves, and those not covered by the forest practices system, are assessed using our state forest activity assessment process. These activities range from recreational events through to communication towers, construction of visitor facilities, new beekeeping sites and, in some cases, scientific research.

The state forest activity assessment process ensures that natural and cultural values (such as flora, fauna, geology/soil, water and heritage), stakeholder values and operational needs can be assessed and considered, and that potential negative effects of the activity can be mitigated or avoided. It also ensures that any proposed activities occurring on state forest land meet legislated requirements.

Over the past year, the process has been widely adopted by district staff. There is greater awareness among property managers, community liaison officers and field operations staff as to how the state forest activity assessment process works, and how to gain benefit from it. With this year's advent of a central database, district staff are now able to easily track and manage the state forest activity assessment process.

Some of our biggest management challenges, highlighted by our monitoring and auditing program, arose through use of state forest for active recreation, such as four-wheel driving and motocross events. As we continue to pursue better environmental outcomes, a goal for the year ahead is to find better ways to engage these stakeholders in assisting us in looking after recreational areas, for instance through the careful choice of location for club events.

The table below reports the audits that have been conducted on state forest activity assessments for forest reserves, as part of our obligation state forest activity assessment process to manage reserves in accordance with the Reserve Management Code of Practice.

State forest activity assessment audits in forest reserves (Non-harvest related activities covered by an assessment 2010/11)

Type of Activity	2007/08	2008/09	2009/10	2010/11
Fuel reduction burns	5	0	4	8
Tourism infrastructure	2	1	7	4
Roads and related infrastructure	1	1	3	5
Water and utility infrastructure	2	0	2	1
Recreation events	1	0	9	4
Other	0	9	2	5
Total	11	11	27	27

Note:

- Permits are issued for third party collection activities on state forest, mostly of plant specimens for research purposes.



Recreational events on state forest, such as Targa Wrest Point, fall within the scope of the state forest activity assessment process, by which staff identify and manage any potentially negative effects of the activity on natural or cultural heritage.

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Protecting Geoconservation Values

Geoconservation values come in a variety of forms, including small outcrops, extensive landforms and underground karst. Karst topography (chiefly in limestone country) can be cryptic, because the water that forms its characteristic surface features can flow underground for considerable distances. This makes karst difficult to map, but LiDAR (Light Detection and Ranging) technology is helping us to identify subtle karst features present on the surface, which can enable the extent of the subterranean system to be identified and mapped in our Geographic Information System. LiDAR is an innovative technology that uses lasers, fired from a light plane, to measure distance to objects. It generates accurate information on ground shape and forest structure, which is used to produce maps of the forest.

This mapping enables us to further assess these geoconservation values using the Tasmanian Geoconservation Database, the Karst Atlas and field inspections. The tools available for finer-scale assessments have been rather limited until recently, but the integration of the Tasmanian Geoconservation Database into the Department of Primary Industries, Parks, Water and Environment's Natural Values Atlas will now provide us with access to more detailed information.

Under the Forest Practices Code, geoconservation values such as karst are protected by excluding machinery from sensitive areas, and by avoiding changes to surface drainage and infiltration that might otherwise lead to sedimentation and erosion. The same protection measures are used for managing non-forestry related activities on state forest as well, including the development of infrastructure for tourism.

In May 2011, the Australian Cave and Karst Management Association held its annual conference in Ulverstone. A highlight of the week was a visit to Tarkine Forest Adventures at Dismal Swamp, a polje or large sinkhole in limestone country near Togari in the far north-west of Tasmania. As part of their visit, the delegates attended a presentation that outlined how the outstanding geoconservation values of Dismal Swamp had been maintained and showcased as Forestry Tasmania developed the site's tourism infrastructure in the early 2000s. The presentation highlighted the ways in which innovative design allowed geoconservation values to be protected while making the site accessible for the public to explore safely.



The Australian Cave and Karst Management Association visited Tarkine Forest Adventures at Dismal Swamp this year. Their field trip included a presentation that highlighted how the outstanding geoconservation values of the sinkhole had been both protected and showcased as part of the tourism attraction.

Biodiversity

We ensure the integrity of biodiversity in state forests through maintaining our permanent native forest estate, continuing our part of the Comprehensive, Adequate and Representative reserve system, and applying and adhering to the Forest Practices Code. The maintenance of a permanent forest estate means that 95 per cent of native forest as mapped in 1996 is to be maintained as native forest on a statewide basis. This objective is achieved through Tasmania's permanent native forest estate policy and is given effect by the Forest Practices Authority through Forest Practices Plans. Forestry Tasmania has its own, more stringent guidelines for maintaining its permanent native forest estate. These prohibit broad-scale conversion of native vegetation in state forest.

We use the Management Decision Classification system to assist us in managing biodiversity values across state forests. Under this system, land is divided into management zones according to its availability for wood production. Management zones help balance competing demands across the forest estate. They make it easier to prioritise management objectives and enable areas with particular values to be identified and managed to protect, maintain and enhance these values.

Through this system, all land is initially classified in primary zones according to whether it is to be managed for production or protection. A second tier of Special Management Zones is then used to define and indicate where management for special values is needed.

Threatened species, communities and habitats

We manage threatened species, communities and habitats in accordance with the Regional Forest Agreement and the Tasmanian Community Forest Agreement, threatened species legislation and the Forest Practices System.

The statewide network of formal and informal reserves includes viable examples of all 50 forest types outlined in the Regional Forest Agreement.

We are also pro-active in the management of threatened species and apply management prescriptions at both the strategic and local level. At the strategic level, together with specialists from the Forest Practices Authority and the Threatened Species Section of the Department of Primary Industries, Parks, Water and Environment, we develop strategic plans for the management of threatened flora and fauna species in state forests.

At the local level, we identify threatened species through searches undertaken as part of our operational planning.

Areas managed for additional protection of biodiversity values in state forests¹

Area managed (ha)	2006/07	2007/08	2008/09	2009/10	2010/11
Biodiversity spines	201,700	201,500	201,800	20,100	201,100
Fauna	60,600	63,100	92,900	80,900 ²	81,300
Flora	385,900	399,600	386,800	388,100 ³	389,800
Wildlife habitat strips	71,600	72,600	71,900	71,700	72,600

Notes:

1. Area includes Buckland Military Training Area managed by Forestry Tasmania.
2. Change in methodology. Previously wildlife habitat strips were simply subtracted from total fauna area, but this then meant that any wildlife habitat strips that also had other fauna values were not counted for those fauna values. From 2008/09 they were run as separate queries, which showed that in fact about 30,000 hectares in wildlife habitat strips also have other specific fauna values.
3. The area in 2007/08 included some erroneous polygons. These were removed in 2008/09 as part of a management decision classification review.
 - Areas managed for each of these biodiversity values can overlap.

Harmonising conservation data: the Natural Values Atlas

As technology improves it is becoming increasingly practical to share information among agencies with overlapping agendas, such as those in the Tasmanian resource management sector. This year, Forestry Tasmania collaborated with the Forest Practices Authority and the Department of Primary Industries, Parks, Water and Environment on harmonising threatened species data management systems. This lengthy and involved process has enabled the Natural Values Atlas, administered by the Department of Primary Industries, Parks, Water and Environment, to become the recognised statewide central repository for observational data on native species, including threatened species. The Natural Values Atlas also contains data from a number of allied projects that are added to the Atlas as required, such as the weeds database, and a raptor database that is currently being developed.

Forestry Tasmania now derives all flora and fauna data from the Natural Values Atlas. We add foresters' field observations to the Atlas, and we draw new records from the Atlas into our own information systems on a regular basis to keep our planning tools up to date. This has greatly improved efficiency, and assisted our discussions with Forest Practices Authority and the Threatened Species Section at the Department of Primary Industries, Parks, Water and Environment on managing threatened species on state forest.



Sea eagle fledgling. A raptor database, which will be incorporated into the Natural Values Atlas, is currently under development. Photo: Penny Sangster.

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Cessation of harvesting sphagnum moss on state forest

In 2009, alpine sphagnum bogs and associated fens were listed as endangered vegetation communities under the *Commonwealth Environmental Protection and Biodiversity Conservation Act 1999*. This listing included the sphagnum peatland community on state forest. Accordingly, Forestry Tasmania reviewed and then rescinded the last remaining harvesting contract for sphagnum moss on state forest at a location in the Central Highlands known as Bradys (Black Bobs) Bog.

This site had been under contract to one harvesting operator since about 1975. The operator had developed low-impact harvesting practices that kept the vegetation community in relatively good health over that time, through the use of a rail track and cart system that minimised ground disturbance and moss compaction.

However, over the past ten years, the growth rate and health of the moss bed had declined. Following an assessment of the bog in 2003 when the contract was due for renewal, the allowable harvesting quota was reduced in order to realign the sustainable yield with the lower growth rates and to allow the health of the sphagnum community to recover. However, at the time of the next contract renewal, in 2008, illegal moss harvesting by someone other than the contractor, was reported as having caused extensive damage to the integrity and health of the moss beds. Damage had increased further at the time of the most recent assessment following the Environmental Protection and Biodiversity Conservation Act listing. In the view of the independent expert on sphagnum communities who was part of the assessment team, the health of the bog had continued to deteriorate despite the low-impact harvesting practices that had been applied. The bog had dried out, resulting in a stark change in species composition, with an increase in other plant species such as *Empodisma minus* colonising the harvested areas from adjacent rush and sedge thickets. In some areas the once-extensive moss beds were becoming islands of moss among expanses of *Empodisma*.

These concerns were discussed with the contractor, and the contract terminated. Forestry Tasmania deployed a hidden camera in an attempt to catch the illegal harvesters, but the camera was discovered and was stolen, presumably by the illegal harvesters. Nevertheless, Forestry Tasmania staff continue to monitor the site.

While the end of legal harvesting has afforded some protection for the bog, illegal harvesting is still causing damage despite our concerted efforts to catch the perpetrators. Perhaps the solution will come from those further along the supply chain. Conservation would be the winner if nurseries, bonsai clubs and other customers only bought legally supplied sphagnum moss, and if they persuaded the industry to invest in chain-of-custody tracking and certification akin to the systems adopted by the forest products sector.

Developing procedures for planning landscape-level conservation

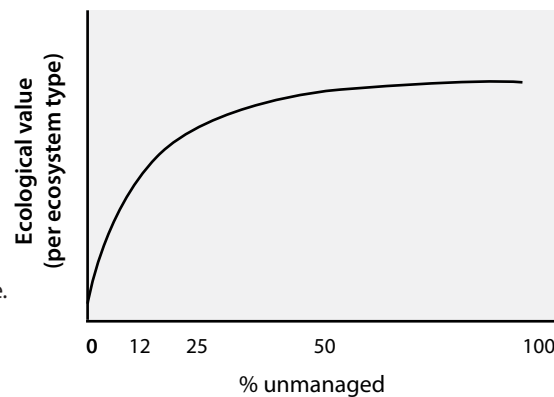
Forestry operations normally take place within individual harvesting areas (coupes), in accordance with Forest Practices Plans. Yet in state forest they usually form part of a broader schedule of operations that are planned for a particular three-year period (or longer) across the landscape. Many conservation issues, such as threatened species, are evident at this larger scale. For instance, the home range of a single masked owl may encompass hundreds of hectares of forest; swift parrot may nest in mature forest several kilometres from the blue gums in which they forage; and the effects of forest harvesting at the head of a catchment on water-flows may be evident lower down in the catchment where threatened native fish and crayfish may live. As our knowledge of threatened species ecology increases and planning tools become more sophisticated, we intend to progressively implement landscape-level planning that we expect will deliver better outcomes for both forestry and conservation across the estate.



Harvesting of sphagnum moss on state forest ceased in 2010/11, in response to the Australian Government's listing of this vegetation community as endangered.

One approach that we are exploring is the application of a coupe-context metric. Using Geographic Information Systems, the metric identifies the proportion of native forest in the vicinity of a coupe that is unharvested and may be set aside for long-term retention. Ecological theory can give some guidance in the development of an estate-wide long-term retention target and the spatial scale at which it should be applied. In general, there is an escalating level of impact on dependent species with increasing habitat loss; some studies detect a threshold at about 70 per cent habitat loss, beyond which major ecological changes ensue. However, most research habitat loss has been conducted in landscapes that have been permanently altered, such as when forest is converted to agricultural land. In more continuously forested landscapes the impacts of harvesting are likely to be less drastic (see figure), not least because they can be considered temporary (because the forest grows back) and because the regenerating forest is not such an obstacle to species movement and recolonisation compared to permanently cleared land. We are currently exploring the validity of this thinking, through a large-scale, three-year research project in the southern forests. While this may guide us, ultimately the choice of target is a matter of judgement.¹

A conceptual ecological thresholds curve relating changes in ecological value with changes in the proportion of the landscape that is unmanaged



Native forestry is becoming increasingly geographically constrained because of additional large-scale forest reservation, presenting challenges for maintaining coupe dispersal. Coupe dispersal prescriptions are aimed at limiting the amount of harvesting that may occur in particular parts of the landscape at a particular point in time, but they take no account of long-term retention. Implementing a well-devised planning tool that may be applied to coupe planning seems likely to deliver much improved conservation outcomes in these circumstances.

Old growth forests

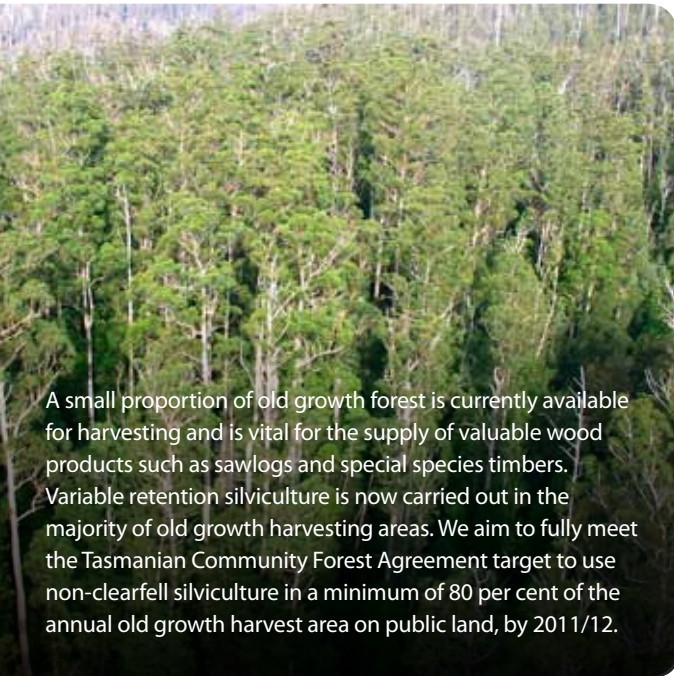
Old growth forests are mature forests in which the effects of disturbance are now negligible. They are important environmentally, socially and economically to Tasmania.

Within Tasmania, old growth occurs across all land tenures and it is our aim to maintain a minimum of 250,000 hectares of old growth forests in state forest reserves for conservation values. Seventy-nine per cent, or one million hectares, of old growth forest is protected across all land tenures in Tasmania.

In addition, a small proportion of old growth in state forest is available for harvesting and this portion is vital for sustaining the supply of high quality sawlogs. The total area of old growth harvested in 2010/11 (using clearfell and non-clearfell methods) was 1,370 hectares. Of this area, 1,030 hectares (75 per cent) was harvested using non-clearfell techniques and 340 hectares (25 per cent) was clearfelled. The total of old growth forest clearfelled in state forests since 30 June 2001 is 9,120 hectares. Based on 1996 baseline mapping, this represents 0.74 per cent of the total old growth forest area in Tasmania.

¹ We have been experimenting with a long-term retention target, whereby 20 per cent of forest in a 400-hectare view from a harvesting coupe (or the proportion of it which is state forest) will be assigned to long-term retention. Most of our commercial forest landscapes of this size already have at least 20 per cent of the forest area either permanently reserved, or otherwise set aside for protection of streams and other special values. For example, a recent analysis of all 203 coupes in Murchison District's three-year wood production plan for the years 2010/11 to 2012/13, showed that in all but a handful of these a long-term retention target within coupes of at least 20 per cent was found to be either already achieved with existing Special Management Zones, or achievable with some re-shaping of coupe boundaries and re-zoning of areas of unharvested forest for long-term retention. In those cases where less than 20 per cent of the forest area is reserved or set aside, the manager may consider alternative harvesting options such as adopting variable retention to increase the proportion of mature forest habitat retained for long-term retention.

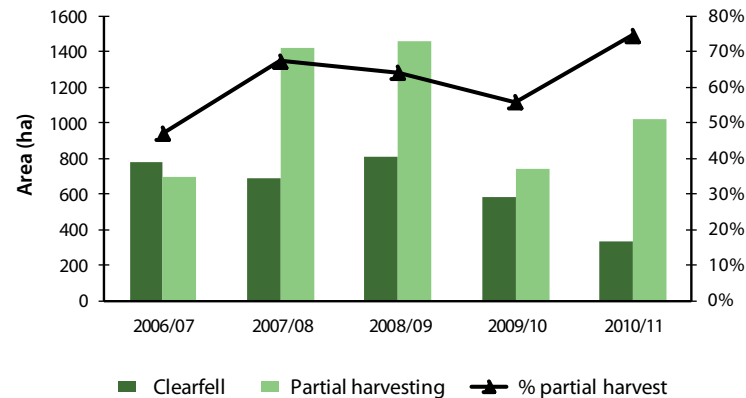
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A small proportion of old growth forest is currently available for harvesting and is vital for the supply of valuable wood products such as sawlogs and special species timbers. Variable retention silviculture is now carried out in the majority of old growth harvesting areas. We aim to fully meet the Tasmanian Community Forest Agreement target to use non-clearfell silviculture in a minimum of 80 per cent of the annual old growth harvest area on public land, by 2011/12.

The Tasmanian Community Forest Agreement set a target to use non-clearfell silviculture in a minimum of 80 per cent of the annual old growth harvest area on public land, subject to confirmation that appropriate progress was being made across a full range of ecological, social and economic objectives.

Old growth harvesting (clearfell and partial)



Old growth harvesting (clearfell and partial)

Harvest year	2006/07	2007/08	2008/09	2009/10	2010/11
Old growth clearfelled (ha)	780	690	810	580	340
Cumulative area of clearfell from 2001 (ha)	6,700	7,390	8,200	8,780	9,120
Cumulative clearfell as per cent of total OG in Tas (ha)	0.55%	0.60%	0.67%	0.72%	0.74%
Old growth partial harvesting (ha)	690	1,420	1,460	740	1,020
Total old growth harvesting (ha)	1,470	2,120	2,270	1,320	1,370

Notes:

- Figures are rounded actual totals.
- Harvested areas for last 5 years, but cumulative totals since 2001.
- Area includes Buckland Military Training Area managed by Forestry Tasmania.

This year saw the successful completion of the research program on Alternatives to Clearfelling in Old Growth Forests, which was funded under the Tasmanian Community Forest Agreement. The \$2 million program commenced in 2006 to identify, commission and report on research into alternatives to clearfelling old growth forests on public land in Tasmania.

In Tasmania's tall old growth forests, the main silvicultural alternative to clearfelling has been the development of variable retention silviculture. The research program has provided assurance that the variable retention technique can be safely and effectively implemented in old growth forests and is supported by science, validated by peer-reviewed papers and summarised in a major report titled *A New Silviculture for Tasmania's Public Forests* (available at forestrytas.com.au).

The variable retention technique aligns well with international best practice and Forestry Tasmania believes it now has a capacity, within operational, economic and safety constraints, to undertake around 1,000 hectares of variable retention harvesting on state forest annually.

The current priority is to meet the Tasmanian Community Forest Agreement target to use non-clearfell silviculture in a minimum of 80 per cent of the annual old growth harvest area on public land. The graph shows that good progress has been made (75 per cent) towards this target, although uncertainties around markets, including those resulting from the Statement of Principles process, and the need to rapidly reschedule harvest areas to meet contractual obligations to customers, meant that the target was not fully achieved in 2010/11. We aim to achieve the target in 2011/12.

In the longer term there may be more ecologically beneficial ways of implementing variable retention harvesting, rather than overly focussing on defined old growth forest. It may be more valuable to implement up to 1,000 hectares of variable retention harvesting across the commercial native forest estate, to retain old growth elements where they deliver most biodiversity benefit.

LiDAR and the giants

South-eastern Australia is home to the world's tallest flowering plants, which are all in the genus *Eucalyptus*. In Tasmania, Forestry Tasmania protects all such trees at least 85 metres in height or 280 cubic metres in volume.

For the past few years, Forestry Tasmania has progressively increased its use of LiDAR. LiDAR-derived Geographic Information System mapping for terrain, drainage, slope, aspect and vegetation offer unprecedented accuracy that helps in the management of state forests, and several new stands of giant trees have been detected using this technology. Our staff first spotted the world's tallest known flowering plant, a 99.6-metre tall *Eucalyptus regnans*, named Centurion, in the southern forests, using LiDAR imagery.

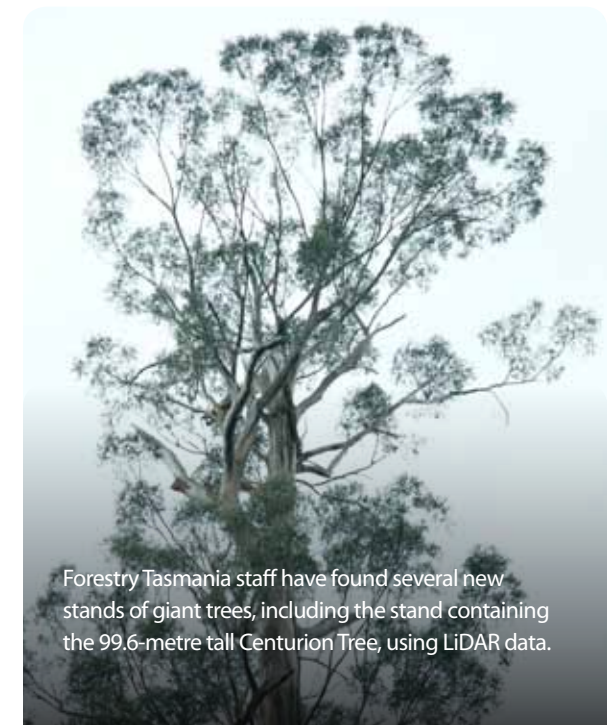
We recently used LiDAR with climatic and terrain data to explore the environmental characteristics that foster extreme height in eucalypts to help us predict where the future giants may grow. In a study area comprising some 450,000 hectares in north-east Tasmania, we found 388 trees over 74 metres tall. By analysing the bioclimatic and terrain data for the locations where these trees were growing, we found that tall trees tend to occur where:

- **Rainfall** is moderately high and seasonal, including periods of low rainfall. The optimal mean annual rainfall is about 1,300 millimetres, with a weekly mean for the driest period of 14 millimetres.
- **Temperature** is strongly seasonal. The optimal mean maximum temperature in the warmest period is 20.3° Celsius and the optimal mean minimum in the coldest period is 1.3° Celsius.
- **The terrain** is typically steeply sloping (mean angle of 20 degrees).
- **The aspect** is typically east to North-east.
- **The elevation** is high (optimally about 490 metres above sea level).

It is possible that tall trees may be less common at lower elevations simply because of historical clearing and harvesting in the valleys. However, it is also possible that the cooler temperatures and higher rainfall typical of higher elevations are indeed more favourable for the growth of giant trees. The association with east to North-east aspects may be associated with higher than average levels of insolation, particularly during the winter; it may also be because these aspects provide protection from the predominant westerly winds, which on other aspects cause high rates of stem breakages among tall eucalypts. Overall, the analysis suggested that tall eucalypt trees may occupy a 'sweet spot' in the landscape, perhaps related to wildfire regimes. This 'Goldilocks' zone is not too wet (because infrequent fires would allow rainforest to dominate), and not too dry (because too-frequent fires would prevent trees

reaching their full height potential). The relationship with steep slopes may indicate an association with gullies, which tend to serve as refugia from drought and fires in parts of the landscape that might otherwise be too dry or fire-prone to support giants.

The environmental envelope described above may in part be an artefact of the steep topography, high rainfall and historical land-use patterns of the north-east Tasmanian study area. Once the LiDAR data is available for the entire state forest estate, we will extend the analysis accordingly to gain a better understanding of what conditions are optimal for giant trees across Tasmania. With this knowledge we will be in a better position to ensure that our management caters not only for today's giants, but for tomorrow's too.



Forestry Tasmania staff have found several new stands of giant trees, including the stand containing the 99.6-metre tall Centurion Tree, using LiDAR data.

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Timber processing, Exeter Sawmill.

Financial performance

Financial performance

Under Tasmanian legislation, Forestry Tasmania's business model includes both commercial and non-commercial objectives. We perform and fund a range of community services, including the management of significant areas of forest for which we receive no commercial return. Forestry Tasmania also operates with a number of commercial constraints, such as the need to manage production forests on long rotations that aim to ensure a long-term sustainable forest industry. These policies affect our profitability and so it is appropriate to assess our financial performance with reference to these issues.

The Financial Statements for 2010/11 (Appendix 1) provide full details of the financial performance of Forestry Tasmania.

Markets

The forest industry in Tasmania and Forestry Tasmania experienced significant challenges in 2010/11. The uncertainties in the operating environment equally affected Forestry Tasmania, our customers, and most other businesses operating in the forestry sector in Tasmania.

The difficult trading conditions arose as a result of a number of complex issues:

- a decision by our largest customer, Gunns Limited, to exit value-adding from native forest harvesting and to close its export woodchip mills;

- the Statement of Principles negotiations and Tasmanian Forests Intergovernmental Agreement process;
- the ongoing effects of the Global Financial Crisis;
- the high Australian dollar; and
- the Japanese earthquake and tsunami of March 2011.

The most significant of these issues, in terms of the effect on our trading position, was the closure of the Triabunna woodchip mill. The mill was critical infrastructure to the industry. To retain a viable sawlog industry it is essential that we retain export facilities for harvesting and processing residues, at least until such time as we can attract new investment in domestic value-added processing.



Forestry Innovation Plan

Forestry Tasmania's response to the changes in our operating environment is articulated in the *Forestry Innovation Plan*, launched subsequent to the reporting period in August 2011.

We have predicted the changes in our customer base for some time, although the industry changes of 2010/11 were of course more rapid than expected. Nevertheless, we have been planning ahead for these changes, by identifying opportunities beyond our traditional product mix of sawn timber and export woodchips.

Our knowledge of international markets and our observations of the domestic environment tell us the key forest industry trends in the future will be:

- less native forest timber available for processing, as the area of reserves increases under the Tasmanian Forests Intergovernmental Agreement;
- more plantation timber coming onstream, as our sawlog plantings mature and new projects, such as Trees on Farms, are implemented; and
- changing consumer demand for engineered wood products.

The vision of the *Forestry Innovation Plan* is to transform Tasmania into a regional hub renowned for state-of-the-art wood products, innovative silviculture, and carbon-neutral energy alternatives.

The future of the Tasmanian forest industry lies in products such as rotary peeled veneers, laminated veneer lumber, cross-laminated lumber, and renewable energy in the form of torrefied wood and wood pellets. We have identified a number of locations around the state with existing infrastructure that could be transformed into processing sites for these products. Investment in value-added processing will also bring substantial opportunities for skilled employment to several Tasmanian regional centres.

These products are already in high demand in international markets. Engineered wood products are strong and versatile, and much more efficient to produce than sawn timber, in both production time and resource recovery. They are now widely used in building construction, as more planning authorities specify the use of wood for carbon storage and earthquake resistance.

Forestry Tasmania will continue to export woodchips and whole logs until we can attract investment in wood processing in Tasmania. Our focus over the short to medium term is on raising awareness of the quality of our products, and building demand for them, in Australian and overseas markets – particularly China.

In the meantime, we have been a lead participant in a feasibility study for a rotary peeled veneer mill at Scottsdale. The potential mill would use a lower specification of logs, not suitable for Ta Ann's current plants at the Huon and Circular Head Wood centres. Currently, these logs are either processed into woodchips or sent overseas for peeling and further processing. Rotary peeled veneer is currently in high demand, as the strength characteristics of our locally grown eucalypts help overseas plywood mills to produce stronger, more valuable panels.

In an effort to make better use of harvesting and processing residues, we are also planning to start a wood pellet mill, with a local partner, as a pilot project at the Huon Wood Centre early in 2012. In an effort to combat global warming, Europe has moved towards wood pellets to replace coal in power generation and for domestic and institutional heating and cooling applications. In other countries around the world, for example, Japan and Korea, similar efforts are being made to offset coal usage in power plants. Within Tasmania, there is an increasing demand for wood pellets and briquettes for home heating. Pellets and briquettes offer a truly renewable heating alternative that is cheaper than electricity and gas. In collaboration with a local partner, Forestry Tasmania hopes to have its first pilot plant preparing pellets for the domestic heating market's peak winter season. These pellets will replace pellets brought into the state from as far away as New Zealand.

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Profitability

Forestry Tasmania made an operating loss after tax before other items for 2010/11 of \$12.09 million, which was a slight improvement on the previous year's result.

The treatment of movements in the superannuation liability was changed from previous years to be consistent with that of other state-owned entities. In previous periods, the total movement in the superannuation liability was presented as a non-operating item. However, for the year ended 30 June 2011, this was changed to disclose the interest component within finance costs, the employer service cost within employee expenses and the expected return on plan assets within other operating items. The previous period has also been restated in accordance with the same classifications, to provide relative comparisons.

Forestry Tasmania's operating loss for 2010/11 reflects the challenging market conditions, in particular, the closure of the Triabunna woodchip mill.

Net finance costs were \$9.2 million and the cost of managing non-commercial forest zones (forest reserves and the Special Timbers Zone) was \$5.3 million.

An operating loss of \$3.3 million resulted from general forest operations.

In 2010/11, we again commissioned an independent valuation of our forest assets by James W Sewall, a US-based firm with specific expertise in the valuation of forest assets, including Australasian forests.

This review resulted in a further decrease in the value of the biological assets (standing timber) and, while these movements have no impact on operational cash or profit

results, they reflect the commercial constraints on land imposed by the Forestry Act. These movements have been taken through the income statement as required, leading to an overall reported comprehensive loss for the year of \$129 million. The changes in valuation of the forest assets are shown in the diagram below:

Forest assets valuation



Tasmanian Community Forest Agreement

In May 2005, the Tasmanian and Australian Governments signed the Tasmanian Community Forest Agreement. Forestry Tasmania is a recipient of funds for specific projects within the agreement. In 2010/11, \$11.212 million was spent on projects associated with the establishing, fertilising, pruning and thinning of hardwood plantations, forest management activities such as variable retention silviculture, recovery and marketing of special timbers and various research related tasks.

The majority of funds were expended on capital programs. However, in compliance with Australian accounting standards, the funds received for the completion of these programs are taken to profit and appear on the face of the income statement and are split between income for capital and for operating activities. This accounting treatment will continue while Forestry Tasmania is undertaking commitments under the Tasmanian Community Forest Agreement.

Community Service Obligations

In addition to deriving economic returns from wood production activities, Forestry Tasmania is responsible for a range of activities to maintain the non-commercial values of state forests. These are referred to as Community Service Obligations and include the following:

- conservation of flora, fauna, land forms and cultural heritage;
- management of forest reserves for conservation;
- the provision and maintenance of forest roads and other facilities for public access; and
- provision of public information and education programs.

Forestry Tasmania incurs significant costs in performing these obligations. Unlike other public forest managers in Australia, Forestry Tasmania's costs for Community Service Obligations have not been separately funded since 1998. From that time, they have been funded from our commercial activities. These costs are included in deriving the annual profit from the commercial operations of the business, and should be excluded when assessing the purely commercial performance of our business.

Forestry Tasmania made formal application this year to the Portfolio Minister for funding of these Community Service Obligations, and this application is currently under consideration.

Forestry Tasmania separately reports costs incurred for managing two non-commercial categories of land as Community Service Obligations. They include forest reserves formally gazetted under the Forestry Act (222,200 hectares); and the majority of the Special Timbers Zone, including the blackwood and predominantly rainforest areas (covering 77,300 hectares), which are managed under the Special Timbers Strategy released during 2010²). As part of the responsibility for this land, Forestry Tasmania incurs costs for providing public access roads, walking tracks, picnic areas and related infrastructure, pest, disease and fire control, as well as weed management. The cost of managing these forest areas was \$5.3 million in 2010/11.

Forestry Tasmania manages additional areas of land set aside from commercial forest production, including informal forest reserves and other areas unavailable for harvest, for which similar Community Service Obligations are incurred as outlined above. These lands are more intimately integrated with productive forest lands, and costs have not been separately identified.

Long-term sustainable supply of timber

We manage state forests to provide a long-term sustainable supply of timber. Both our native forests and plantations are managed on long rotations to ensure the maximum availability of high quality sawlogs.

Under the Forestry Act, we are required to make available a minimum quantity of 300,000 cubic metres of high quality

sawlog and veneer log annually, although the actual quantity supplied may drop below this amount under difficult trading conditions (such as those experienced this year). We are also planning ahead for a possible reduced resource availability of at least 155,000 cubic metres of sawlog, 265,000 cubic metres of veneer log, and 12,500 cubic metres of special timbers under the Tasmanian Forests Intergovernmental Agreement.

Other requirements, such as the introduction of variable retention harvesting under the Tasmanian Community Forest Agreement, have also added additional costs to our operations and constraints on resource availability.

When judged by the short-term standards currently applied to business, our capacity to deliver a fully commercial financial performance is constrained by these issues. For example, our focus on producing high quality sawlog significantly extends the length of the commercial harvesting cycle, and thus affects our return.

However, our business is managed according to the principles of sustainable forest management, which means that we aim to balance short-term financial returns with longer term issues such as ecological sustainability and growth in local industry and employment. We continue to be transparent in the reporting of these commercial issues.

Wood products

The estimated final value of wood products produced in Tasmania from logs supplied from state forest in 2010/11, based on the best available information on recovery and value of each product, was \$585 million. This underpins

² This does not include 18,600 hectares of wet eucalypt forests also managed for special timbers but where an initial commercial harvest is planned.

the annual contribution made by the wood and paper product manufacturing sector to the Tasmanian economy, reported by sources including the Forestry CRC ranges from \$1.2 billion to \$1.6 billion.

Our contribution to the economy included \$183 million in payments to staff, contractors and suppliers – wages accounted for some \$32 million.

Forestry Tasmania is also involved in a variety of joint venture arrangements. The terms of these vary considerably and range from the lease of state forest to other forest companies; joint equity in plantations established in state forests; and joint equity in plantations established on private land. One such arrangement is the softwood joint venture in which GMO Renewable Resources and Forestry Tasmania each have 50 per cent equity of the majority of the softwood estate in state forests.

Financial performance data in this report is based on Forestry Tasmania accruing 50 per cent of the revenue from the sale of softwood from the GMO partnership. However, as a means of accounting for the total volume of wood products generated from state forest, Forestry Tasmania includes 100 per cent of the softwood production. Using this as a basis for overall production from state forests in 2010/11, native forests produced 2.068 million tonnes of wood, hardwood plantations produced 171,000 tonnes and softwood plantations produced 911,000 tonnes.

sustaining JOBS FOR CURRENT AND FUTURE GENERATIONS

Auditor-General finds Tasmanian economy is \$111 million better off each year with Forestry Tasmania

The Tasmanian Auditor-General this year completed a comprehensive and independent review of Forestry Tasmania, finding that at a base level, we contribute \$111 million to Gross State Product annually.

This is our direct contribution to the economy, and should be regarded as a starting point for determining the overall benefit to state growth that we deliver. The figure was calculated using conservative modelling that did not take into account the downstream processing of wood products from Tasmanian state forests. This includes the contribution of harvesting contractors, sawmills, veneer mills and woodchip mills, which could not continue to operate in the absence of wood from state forest. When this wider contribution is taken into account, the value of wood products produced from Tasmanian state forest timber in 2010/11 was \$585 million.

The Auditor-General also found we had foregone revenue of \$30–\$40 million in unfunded Community Service Obligations, and that funds received from government have been compensation for loss of productive assets, not operating subsidies.

The net effect to Forestry Tasmania of government agreements to reserve more land has been a 27 per cent reduction in our productive assets and a 90 per cent increase in the formal and informal reserves we have had to manage on a non-commercial basis.

Of the \$223 million received in State and Australian government funding during this period, \$211 million was compensation for productive forest transferred into reserves, not operating subsidy. This compensation was used by Forestry Tasmania to invest in plantation development to offset the losses of productive forest assets. However, plantations are developed over the long-term, and do not generate a return on investment for around 20 years.

The review also found we had:

- made \$201 million in operating profits since corporatisation;
- paid \$99 million in government taxes and dividends since corporatisation; and
- had invested more than \$414 million in assets and plantations, including \$189 million from revenue generated from operations.

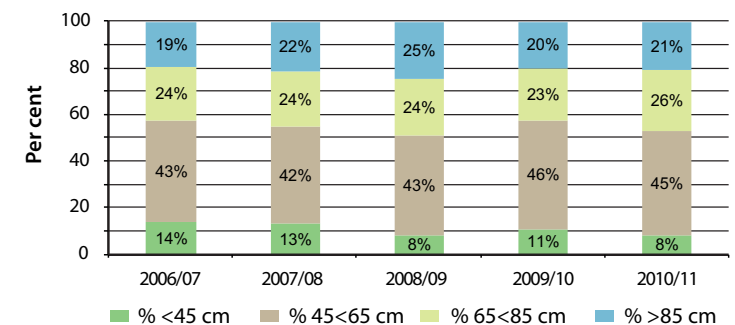
We have already responded to some of the Auditor-General's recommendations, for example, by appointing independent valuers, Sewall, to determine an integrated value of the total forest estate. This valuation will create a clearer picture of our financial performance and return on assets in future years.

Wood quality

As a result of the lower availability of logs from mature native forests, and the increased proportion that will be supplied from plantation and regrowth forests, the average size of sawlogs will decrease over time. Sawlog characteristics will also change. These factors will require the processing industry to transition to new technologies over the next five to ten years.

The two indicators used to monitor these changes and to provide the processing sector with an indication of the rate of change in wood quality over time are log diameter (a well-recognised proxy for sawn timber recovery and therefore value) and the percentage of non-seasoning species³ in the sawlog supply. This year's data shows a slight increase in the average quality of eucalypt sawlogs supplied. The log diameter data shows a decline in the percentage of logs less than 65 centimetres in diameter, with a commensurate increase across the two larger diameter classes. It also shows a small reduction in the percentage of sawlogs supplied from non-seasoning species.

Percentage of eucalypt category 1 and 3 sawlogs by four log diameter classes sold over the past five years



Percentage of non-seasoning species sold over the past five years



Product recovery

We maximise the use of all felled trees from harvested areas through the selection of craftwood, special timbers, high quality sawlogs and veneer, with the remainder being available as peeler logs, pulpwood and fuelwood.

We have two main processes in place to ensure the recovery of wood volumes and values is maximised. These are:

- pulpwood audits at mills and landings to determine the presence of any sawlogs that may have been misclassified as pulpwood; and
- post-logging residue assessments to ensure the efficient removal of forest products and to quantify merchantable wood being left on the forest floor after harvesting operations.

³ Non-seasoning species are predominantly used to make construction grade products, whereas the seasoning species may be used to make appearance grade products.

This year, we conducted audits on 120,063 tonnes of wood classified as pulpwood to determine whether any wood had been misclassified as sawlogs. Information collected from these audits showed an improvement in log segregation, with 110 tonnes of sawlogs recovered out of the total audited. Based on a sample size of just under eight per cent, the estimated recoverable volume (1,418 tonnes) was less than the preceding three years' average of 1,920 tonnes, indicating that a slightly lower proportion (0.09 per cent) of pulpwood consisted of misclassified sawlog this year (compared with the average of 0.1 per cent over the preceding three years).

In 2010/11, we conducted logging residue assessments in 69 harvested areas. The standard of less than five merchantable tonnes per hectare was achieved in all the production areas sampled.

Eucalypt wood production

Product Group	2006/07	2007/08	2008/09	2009/10	2010/11
High quality sawlog and veneer (m ³) ¹	307,088	303,951	245,154	210,538	196,702
Low quality sawlog (m ³)	51,778	87,090	56,613	37,897	48,532
Peeler log (m ³)	211,197	209,590	208,334	299,101	431,391
Plantation pulpwood (t)	126,163	176,703	135,549	179,495	171,205
Native forest pulpwood (t)	2,136,687	2,230,874	2,005,448	1,388,986	1,376,554
Total arisings ^{2,3}	2,525,825	2,704,257	2,405,944	1,905,479	2,027,682

Notes:

1. The indicative sustainable yield level is based on Forestry Tasmania (2007) Sustainable high quality eucalypt sawlog supply from *Tasmanian State forest, Review No. 3*. is 320,000 m³ per annum.
2. Potential supply level of arisings from the sustainable yield of high quality sawlog supply is 2,800,000 tonnes, based on Forestry Tasmania (2007).
3. Arisings include pulpwood (t), peeler (m³) and low quality sawlog (m³). One green metric tonne is approximately equal to 1m³.

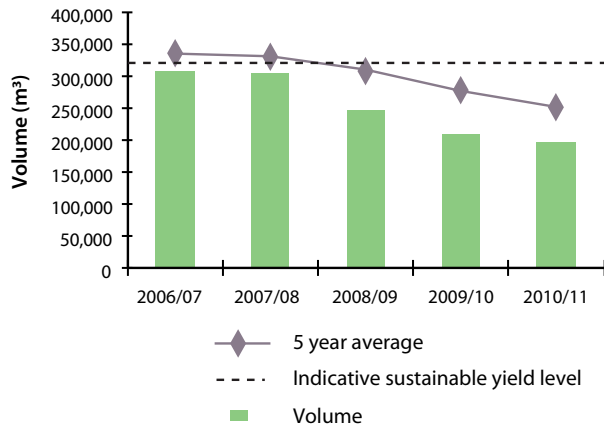
Sustainable yield

A vital prerequisite for sustainable forest management is that the volume of timber harvested from the forest estate does not exceed its productive and regenerative potential over a given time period. We manage harvesting in state forests to maintain a sustainable supply of at least 300,000 cubic metres of high quality eucalypt sawlog. This management approach is required by the Forestry Act and Clause 77 of the Regional Forest Agreement.

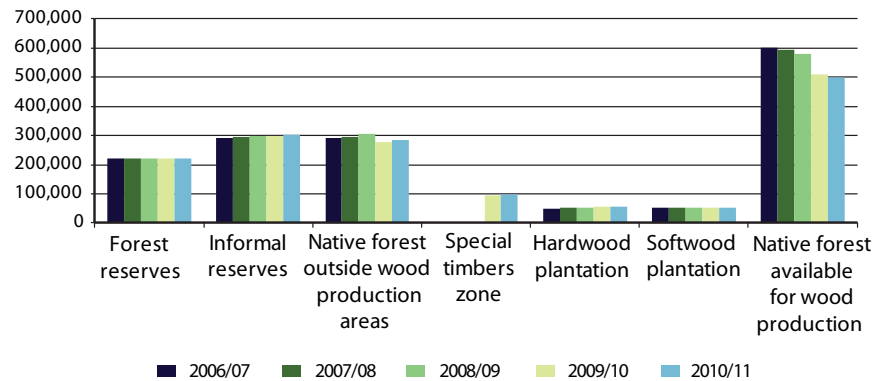
In 2010/11 we produced a total of 196,702 cubic metres of high quality sawlog and veneer, which was indicative of the depressed sawlog market. The five-year average sawlog yield remained within the sustained yield strategy, while the five-year average arisings yield was below the potential supply level of 2.8 million tonnes.

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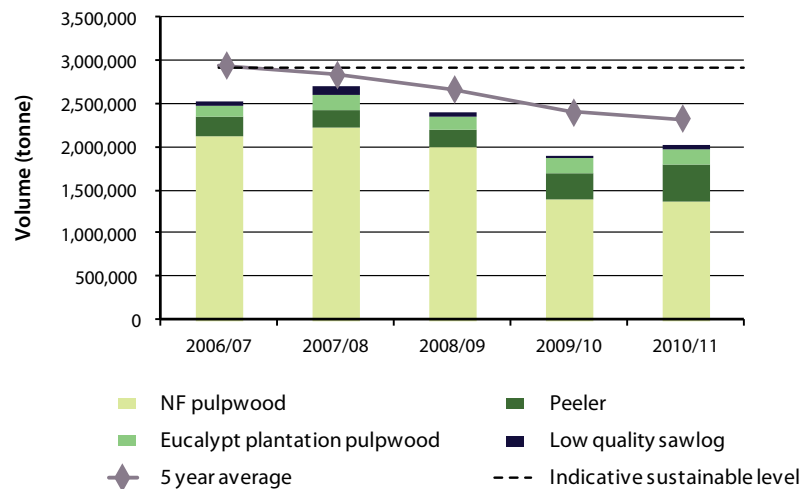
Production of high quality sawlog and veneer



Trends in land use for areas managed by Forestry Tasmania



Arisings production levels against potential supply level



To maintain the ongoing supply of timber, a sufficient area of production forest is required. Only 47 per cent of the 1.5 million-hectare state forest estate is available for wood production. This area comprises native eucalypt forest (499,500 hectares, or 33 per cent), the Special Timbers Zone (97,800 hectares, or 6 per cent) and plantations (108,400 hectares, or 7 per cent). The remaining area (53 per cent) comprises formal and informal reserves and other areas outside production forests.

Since 2000/01, the area available for native forest wood production (including the Special Timbers Zone) has been reduced by 16 per cent or 111,700 hectares. The majority of this decrease has resulted from the implementation of additional reserves under the Tasmanian Community Forest Agreement. However, the conversion of a portion of native forest to plantation has also contributed. Ongoing decreases also occur due to the reservation of forest from wood production during pre-harvest planning to protect conservation values.

Setting the scene for the next wood review

Maintaining the productive capacity of the forest is one of Forestry Tasmania's key criteria for sustainable forest management. This criterion is most relevant when discussing high quality eucalypt sawlog supply. We model and monitor this sawlog supply to ensure harvesting is consistent with the long-term productive capacity of Tasmania's state forests.

The 1997 Regional Forest Agreement requires us to review our sustained yield calculation for high quality eucalypt sawlog supply every five years. The fourth such review, is due in 2012.

Each review involves the major components of resource estimation, which are the areas of various forest types, yields of log products, and a forest management strategy. To estimate sawlog supply from the forest, we use forest inventory, future growth estimates and historical harvest records. At each review since 1997, we have identified

significant changes to sawlog supply. These changes are usually associated with a reduction in the area of native forest available for wood production, and increased contribution from a maturing plantation resource. For example, in 2005 the Tasmanian Community Forest Agreement reserved more old growth forest, thus reducing sawlog supply.

We commenced preparations for the next review of our sustained yield calculation in 2010/11. Based on a view from our resource information systems in July 2011, high quality eucalypt sawlog supply will be modelled and reported in 2012.

Evaluation of wood resource scenarios relevant to the Tasmanian Forests Statement of Principles to lead to an agreement

In October 2010, discussions between the forest industry and Environmental Non-Government Organisations led to the signing of the Tasmanian Forests Statement of Principles. In turn, this led to the Tasmanian Forests Intergovernmental Agreement, which the Australian and Tasmanian governments signed subsequent to the reporting period.

Neither the Australian nor Tasmanian governments, nor Forestry Tasmania, were signatories to the Statement of Principles. The Australian and Tasmanian governments welcomed the statement as a positive step towards balancing the conservation and sustainable development and management of Tasmania's forest resources and jointly appointed an independent facilitator, Mr Bill Kelty AC, to work with the signatories to develop an implementation plan for further consideration by the governments early in the 2011/12 financial year.

In the latter part of 2010/11 Forestry Tasmania provided consultancy services to the signatories to the Tasmanian Forests Statement of Principles to evaluate the feasibility of the principles in relation to wood supply, particularly for two distinct scenarios:

- an Environmental Non-Government Organisation scenario that proposed additional reserves of 351,600 hectares (within a total proposal of 572,000 hectares, of which one-third is already reserved); and
- an industry scenario that proposed 60,630 hectares of additional reserves within a total proposal of 140,350 hectares, and included areas that were the subject of significant contemporary Environmental Non-Government Organisation campaigns, but retained sufficient native forest to meet the processing industry's minimum position for products from native forests. This position was articulated as 150,000 cubic metres per year of high quality sawlog, 265,000 cubic metres per year of peeler billets and 12,500 cubic metres per year of special timbers.

Both scenarios were compared against a base case, which reflected the wood supply if no additional reserves were created. The signatories indicated that these scenarios were not necessarily their positions on preferred outcomes. However, the scenarios were provided to generate information to help inform transitions and negotiating possibilities.

The focus of the evaluation was on native forest wood supply from public land over two periods: from 2011 until 2030 and from 2031 to 2050. The first twenty years broadly equated to the period in which current supply contracts will apply.

The industry signatories insisted they would require access to logs from native forest over this period because they were not confident of their ability to produce sawn timber and veneer from eucalypt plantations. Assuming that the technical difficulties with the production of sawn timber and veneer from eucalypt plantations are resolved in the interim, significant volumes of eucalypt plantation logs meeting the size specifications for high quality eucalypt sawlogs will be available from plantations on state forests after 2030, and there is opportunity to include them in future wood supply contracts.

Under the Environmental Non-Government Organisation scenario, it was estimated 117,000 cubic metres per year of high quality sawlog, 191,000 cubic metres per year of peeler billets and 6,700 cubic metres per year of special timbers could be produced from remaining production forest areas in the first period. These average volumes until 2030 represented 78 per cent of the sawlog, 72 per cent of the peeler billet and 54 per cent of the special timbers requirement of the processing industry.

Under the industry scenario, it was estimated 199,000 cubic metres per year of high quality sawlog, 265,000 cubic metres per year of peeler billets and 11,500 metres per year of special timbers could be produced from remaining production forest areas in the first period. These average volumes until 2030 represented more than the minimum sawlog, 100 per cent of the peeler billet and 92 per cent of the special timbers requirement of the processing industry. The 8 per cent shortfall in the required special timbers supply could not be offset from other sources.

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The processing industry stated no minimum requirement for pulpwood, but the sale of native forest pulpwood associated with sawlog and peeler sales is a key requirement for the financial viability of harvesting operations and for regeneration after harvesting, particularly in wet eucalypt forests.

There is a negligible supply of high quality sawlogs available from eucalypt plantations prior to 2016. Although not deemed suitable by the native forest processing industry, eucalypt plantations, wholly or partly owned by Forestry Tasmania, could yield an average of about 28,000 cubic metres per year of high quality eucalypt sawlogs from 2016 to 2020, increasing to an average of 82,000 cubic metres per year from 2021 to 2030.

From 2031–2050, there will be a significant increase in sawlog supply from eucalypt plantations to an average of 157,000 cubic metres per year. There will also be a large supply of peeler billets, at an average of 617,000 cubic metres per year, available from these plantations. However, the willingness and capacity of the current sawlog and domestic peeler processing industries to process and market plantation wood is still uncertain.

This preliminary evaluation of the wood resources available under Environmental Non-Government Organisation and industry scenarios provided a basis for further detailed exploration of wood supply scenarios. The report may be downloaded from forestrytas.com.au

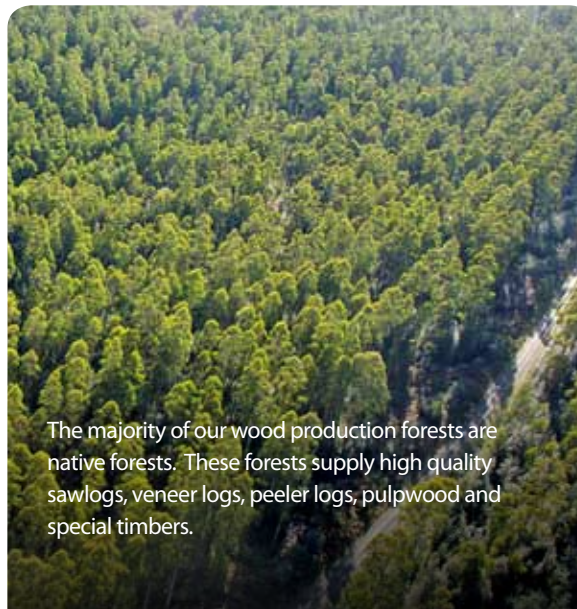
Native forests

Of the 706,000 hectares available for wood production, the majority (597,000 hectares) is native forest. This area provides the majority of the high quality eucalypt sawlogs and veneer logs, peeler logs and pulpwood as well as special timbers from non-eucalypt species.

Eucalypt forests

We aim to ensure that productivity in state forests is always maintained. In order to achieve this, forest regeneration practices are constantly monitored and reviewed. Successful eucalypt regeneration generally requires:

- effective site preparation by fire or by mechanical disturbance to create receptive seedbeds;
- an adequate supply of high quality seed; and
- freedom from heavy frosts, drought and excessive damage by insects and browsing animals.



The majority of our wood production forests are native forests. These forests supply high quality sawlogs, veneer logs, peeler logs, pulpwood and special timbers.

To ensure high quality native forest regeneration, we actively maintain a native forest quality standards process. This process enables the timely, effective and accurate monitoring and reporting of silvicultural operations in native forests. The process uses goals, targets, standards and performance indicators to determine the success of regeneration operations. An annual quality standards review is held to discuss issues of concern relating to silvicultural operations, to ensure a constructive approach to improving practices, and to provide a forum for exchange of information and ideas. The following information represents a summary of the information collated from this process.

Site preparation

Site preparation has a significant impact on the success of regeneration. Site preparation techniques include high or low intensity burning, mechanical loosening of the soil or excavator heaping and subsequent burning of logging slash. In some cases the disturbance caused by harvesting produces sufficient seedbed for adequate regeneration.

The quality standard for clearfelled areas is that receptive seedbed is created over at least two-thirds of the area to be regenerated. In partially harvested areas, the quality standard is that receptive seedbed is created over at least one-third of the area to be regenerated, with less than 10 per cent scorching of retained stems, and the achievement of an acceptable level of fire protection.

In 2010/11, we assessed 6,316 hectares of native forest (1,824 hectares of clearfelled area and 4,493 hectares of partially harvested area) against these standards.

A total of 86 per cent of clearfell and 78 per cent of partial harvest areas respectively achieved the site preparation quality standard. This compares with the five-year average of 90 per cent and 89 per cent for clearfell and partial harvest respectively. Nine clearfelled areas did not meet the standard as a result of poor burns. Eleven partially harvested coupes did not meet the standard because an acceptable level of fuel management was not reached.

Seed and sowing

Forestry Tasmania classifies the source of seed sown onto harvested native areas into three categories:

- On-site seed is collected from the harvested area or from a similar area immediately adjacent to it.
- In-zone seed is from the same seed zone as the nominated harvesting area. The seed zones are detailed in *Native Forest Silviculture Technical Bulletin No. 1 Eucalypt seed and sowing*. For the purposes of the performance indicator, in-zone seed does not include the on-site seed component.
- Out-of-zone seed is collected from outside the seed zone of the nominated from the harvesting area. This is the least preferred seed source.

The seed provenance quality standard is that each harvested area should be regenerated with at least 10 per cent on-site seed with the remainder being in-zone seed matched to forest type.

In 2010/11, we sowed 2,150 hectares with eucalypt seed. A total of 1,432 hectares (67 per cent) of this area achieved the seed provenance quality standard. This is 10 per cent higher than the five-year average of 57 per cent. A shortage of

on-site seed was the main reason for not achieving the desired standard.

In 2010/11, we sowed 2,427 kilograms of eucalypt seed, of which 51 per cent was on-site, and 47 per cent in-zone and two per cent out-of-zone. This is a better performance than the five-year average of 42 per cent on-site, 54 per cent in-zone and four per cent out-of-zone seed.

The quality standard for sowing operations requires that the delay between site preparation completion and artificial sowing be less than 21 days. This ensures the best chance of successful regeneration. In 2010/11, we achieved this standard in 80 per cent of the artificially sown area. This is less than the five-year average of 94 per cent. Poor weather conditions and lack of available helicopters for aerial sowing were the main reason for 20 per cent of the area not meeting the standard.

Regeneration success

Regeneration success of eucalypt areas is reported after they are three years old. Swamp blackwood, rainforest and Huon pine forest coupes are reported after they are five years old. Regeneration success is determined by undertaking surveys. For each forest type, there is a set minimum stocking standard that needs to be achieved. This approach complies with the recommended national methodology for regeneration success monitoring.

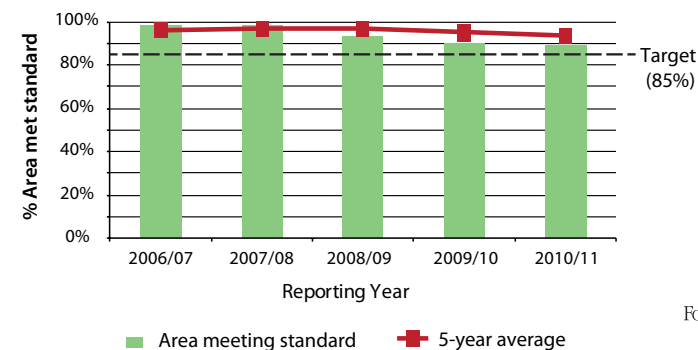
In 2010/11, 7,820 hectares of native forest regeneration reached the relevant reporting age for regeneration success, and we achieved the required stocking standard in 88 per cent in this area. This is a decrease of 5 per cent on the five-year average of 93 per cent but exceeds our

target of 85 per cent of harvested area being regenerated to standard.

We did not meet the stocking standard in 31 coupes, totalling 930 hectares. The main reasons for understocking were poor regeneration burns due to a wet autumn, insufficient natural seed-fall and browsing by native mammals. All these areas contained sufficient regeneration or retained trees to be considered as ecologically stocked and useful for wood production at a reduced rate. Seventeen of these coupes were forests that were logged using partial harvest silviculture. Mature standing trees remaining on these areas will continue to provide seed for further seedling recruitment, and stocking is likely to improve further in the near future.

Under this year's native forests quality standards program, Huon District was awarded the Gilbert-Cunningham trophy, which recognises the achievement of excellence in regrowing native forests following harvesting. This was the eighth year that Forestry Tasmania has presented the Gilbert-Cunningham trophy.

Native forest regeneration success summary



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Technical bulletins

We revised and republished *Native Forest Silviculture Technical Bulletin No. 5 Silvicultural systems for native eucalypt forests* and *No. 6, Regeneration Surveys* in 2010/11. *Technical Bulletin No. 5* is designed as a general reference manual for the management of native eucalypt forests in Tasmania. It briefly describes all the silvicultural systems that are prescribed for use in native eucalypt forests. This revision incorporates for the first time the use of aggregated retention for harvesting in wet eucalypt forests. The bulletin also describes the natural regeneration processes, and how regeneration is established following harvesting. It also contains a range of reference information: for example, forest product classes, growth stages of the eucalypts and tables of appropriate spacing of retained trees for a given basal area.

The new edition of Technical Bulletin 6 reviews the methodology for regeneration surveys, sets out the timing of surveys, and, for the first time, introduces electronic data capture and automated processing and reporting, saving significant staff time.

Special timbers

Special timbers are an integral part of the Tasmanian brand. They are used to produce high value furniture and craftwood products, and include blackwood, blackheart sassafras, myrtle and celery-top pine. With the exception of blackwood, special timbers are mostly derived from old growth forests. Our Special Timbers Strategy (forestrytas.com.au) provides for the ongoing long-term supply of these timbers to the Tasmanian craft and design industries.

During 2010/11, we sold a total of 15,141 cubic metres of special timbers. This comprised 14,477 cubic metres of high quality special timbers sawlog, with the remainder craftwood. Blackwood made up 74 per cent of this volume, with the rest comprising species such as myrtle, celery-top pine and eucalypts with attractive craft features such as burls. These figures are in line with sustainable supply as outlined in our Special Timbers Strategy.

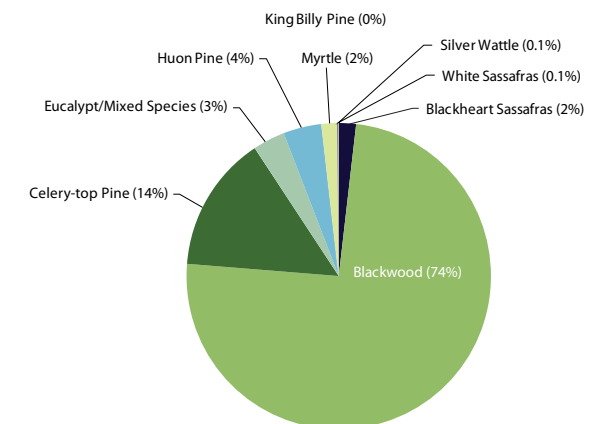
New Island Specialty Timbers outlet in Smithton

In March 2011 we launched a new Island Specialty Timbers outlet at Smithton. Officially opened by Managing Director Bob Gordon, the new site complements the Island Specialty Timbers sales website and the Geeveston and Strahan outlets, and adds to the availability of specialty timbers raw material.

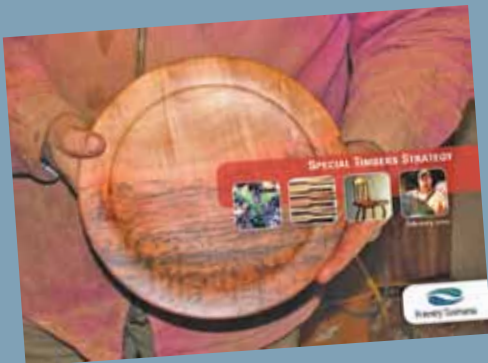
Sales from the site will increase the recovery of specialty timbers logs, stumps and burls from forests in the Murchison District south of Smithton, in Tasmania's north west. Raw material available from the Smithton site not only includes the well known species of blackwood, myrtle, black heart sassafras, celery-top pine and red heart leatherwood, but also lesser-known species such as dorrel, also known as native olive, and goldie wood, used in wood turning because of its hardness and bright yellow colour. Logs, stumps and burls, and plain and figured timbers may all be purchased by craft designer-makers, builders, wood turners, luthiers and others who work with wood.

At the opening, Minister for Energy and Resources Bryan Green also unveiled the new Island Specialty Timbers logo. The logo uses representations of different species of specialty timbers that combine to form the image of a tree. The new Smithton outlet was built with funding assistance under the Tasmanian Community Forest Agreement.

Production of special timbers sawlogs in 2010/11



Island Specialty Timbers stall, Salamanca Market, Hobart. Special timbers, including blackwood, blackheart sassafras, myrtle and celery-top pine, are an integral part of the Tasmanian brand. With the exception of blackwood, they are mostly harvested from old growth forests.



The Special Timbers Strategy may be viewed at:
forestrytas.com.au

More information on Island Specialty
 Timbers Tasmania may be found at:
islandspecialtytimbers.com.au

Plantations

As more areas of native wood production forest are placed in reserves, plantations will play an increasingly vital role in the production of wood products from our state forests. We apply the principles of sustainable forest management to both softwood and hardwood plantations on state forest and these ensure the long-term supply of benefits to the community, the environment and the wood products industry. In line with the requirements of the Australian Forestry Standard, there is no longer any conversion of native forests to plantations.

We have established softwood (*Pinus radiata*) and hardwood (*Eucalyptus globulus* and *E. nitens*) plantations primarily to supply local industry but also interstate and overseas markets.

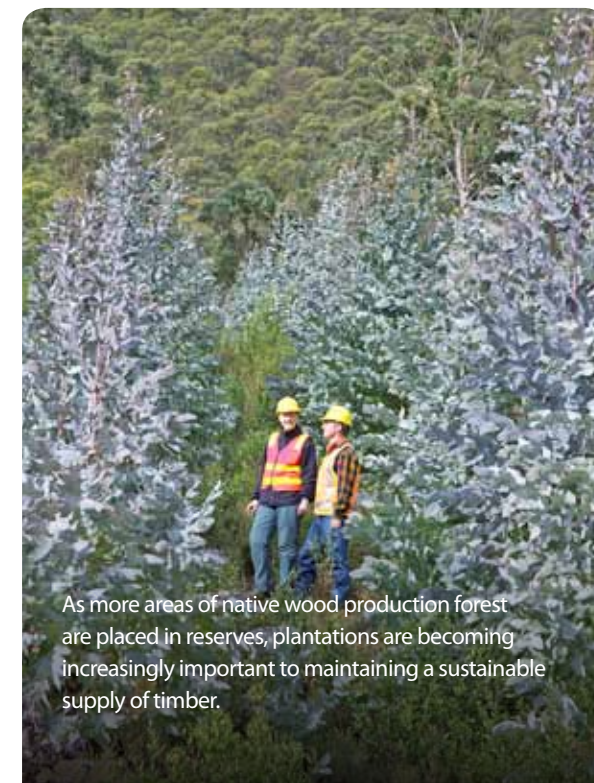
Products include sawn timber, veneer, posts and poles and pulpwood for paper, and these are sourced from a hardwood estate of some 55,700 hectares and a softwood estate of 52,700 hectares.

The current hardwood plantation estate comprises approximately 85 per cent *Eucalyptus nitens* and 15 per cent *E. globulus*. Historically, *E. globulus* was planted only below 300 metres elevation due to its frost sensitivity. In the late 1990s, planting of *E. globulus* was stopped altogether in the north-west of Tasmania, following some severe episodes of *Mycosphaerella*, a disease that attacks the leaves of the trees, causing reduced growth.

However, *E. globulus* has some significant advantages over *E. nitens*. The wood has a higher kraft pulp fibre yield per hectare, and better solid wood qualities. *Eucalyptus nitens* is also known to be more susceptible to infestation by *Phytophthora cinnamomi*, the root-rot fungus. A review and risk analysis of the planting strategy found that over the course of a rotation, the loss due to pests and diseases such as *Mycosphaerella* was manageable, and that the perceived slower early growth of *E. globulus* was compensated for by faster later growth, with both species growing equally well by rotation end.

Following the review, the decision was made to extend plantings of *E. globulus* more widely, with the ultimate aim of bringing the relative balance of the two species closer to 50/50. As we have been actively breeding *E. nitens* for form for many years, but not *E. globulus*, there is now also an opportunity to improve the form of *E. globulus* through a selective breeding program.

Overall, planting programs have declined over the past four to five years. The hardwood planting program in 2010/11 was relatively small, with only 700 hectares of eucalypt plantations established. This follows a downward trend since 2007, when approximately 2,000 hectares were established. This decline in new plantings reflects the end of native forest conversion to plantation and the small area of replanting of existing eucalypt plantation areas following harvest on second rotation sites (this area will increase in the future). There has been a more significant decline in planting of new areas of softwood plantations over the same period; however, there is a strong annual replanting program on second and third rotation sites.

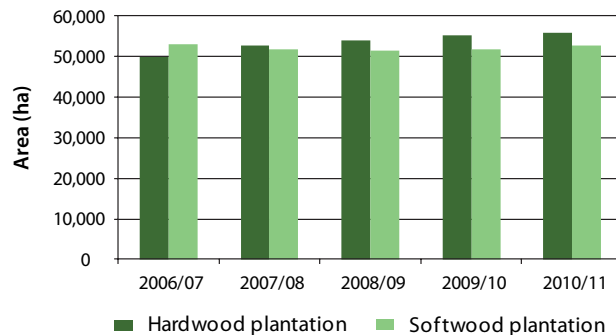


As more areas of native wood production forest are placed in reserves, plantations are becoming increasingly important to maintaining a sustainable supply of timber.

sustaining JOBS FOR CURRENT AND FUTURE GENERATIONS

We have also been busy with the Trees on Farms project, which offers farmers the chance to reclaim weed-infested land, secure a new revenue stream, capture carbon and provide long-term habitat for the swift parrot. Under this program landowners have the opportunity to establish commercial woodlots on cleared land in a joint venture with Forestry Tasmania. There are many benefits to the community from this program, including the supply of an additional source of plantation wood products into the economy, improving degraded land, and assisting rural landowners to diversify their enterprises. There are also aesthetic benefits from re-establishing trees in the environment. To date, approximately 600 hectares of farmland have been planted under partnerships in this program.

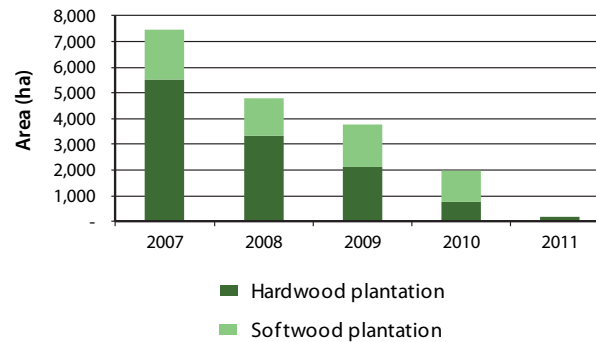
Trends in plantation estate area on state forest



Notes:

- Includes the softwood plantations which are 50% owned by GMO Renewable Resources, for which data is supplied by Timberlands Limited as at 30th June 2011, and softwood plantations jointly owned with Norske-Skog, for which data is supplied by Norske-Skog as at 1st June 2011.
- Area includes plantations in Buckland Military Training Area on land managed by Forestry Tasmania.
- Excludes former plantations which are now managed for recreation in Forest Reserves.

Area of plantation by age class 2007 to 2011 (Forestry Tasmania woods and hardwoods)



Notes:

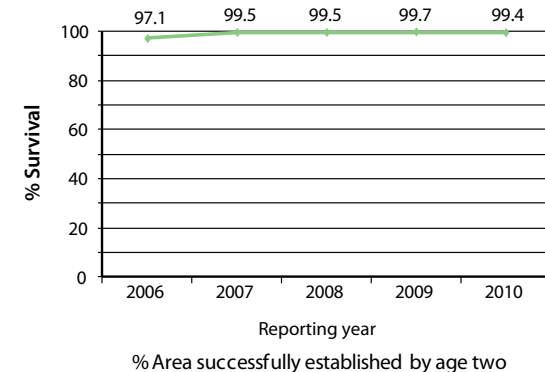
- Age classes are based on calendar year planting seasons, not financial years. Totals reflect plantation as at 30 June 2011, and include commercial acquisitions.
- Planting of the 2011 age class was still in progress as at 30 June 2011.
- Excludes former plantations which are now managed for recreation in Forest Reserves.
- Includes the softwood plantations which are 50% owned by GMO Renewable Resources, for which data is supplied by Timberlands Limited as at 30th June 2011, and softwood plantations jointly owned with Norske-Skog, for which data is supplied by Norske-Skog as at 1st June 2011.
- Area includes plantations in Buckland Military Training Area on land managed by Forestry Tasmania.

The role of research and quality standards

Forestry Tasmania has a strong research group that focuses on improving the quality and productivity of our existing plantations, while also ensuring that best practices are used for re-establishing the second rotation crops. Important research programs include tree improvement research, which produces seedlings from the best genetic stock; nutrition research, which is improving the efficiency and effectiveness of fertilisation, for example, using controlled-release fertilisers at establishment; and silviculture research, which is evaluating alternative management regimes to optimise the quality and value of wood products from our

plantations. We have a comprehensive quality standards system and set of annual performance indicators to track the performance of our operational practices.

Percentage area of plantations successfully established by age two



Improving plantation establishment techniques

Long-term sustainability is the objective in managing our plantations. One of the key ways we achieve this is by improving establishment techniques to minimise negative effects on the environment. Practices such as minimising soil disturbance, reduced burning of slash and litter, and minimal and targeted use of chemicals, are some of the methods we use to achieve this. Monitoring the performance of seedlings during the first two years of growth is important, and our survival survey results indicate we are achieving excellent results.

The monitoring program includes survival surveys that are carried out initially at 9 to 12 months to determine the percentage of seedlings that have survived the first year and whether any refill planting is required to meet target stocking (1,100 seedlings per hectare). A further survey is conducted

by age two years to determine the plantation area that has been successfully established by this time. These first two years are recognised as the critical establishment phase, after which the young trees start to form a new forest.

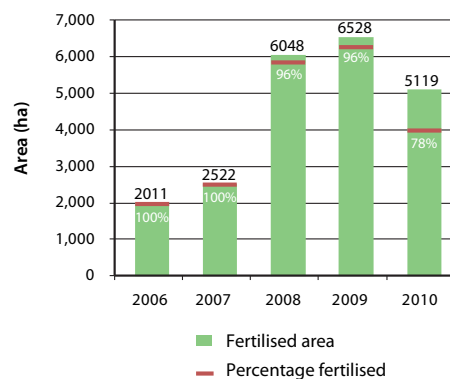
Targeted use of fertilisers

Fertilisation is a key means of improving the health and productivity of our plantations, because many of Tasmania's forest soils have relatively low nutrient availability (especially nitrogen and phosphorus), which is insufficient for fast-growing plantations. Consistent with our aim of long-term sustainability, fertiliser use is targeted and appropriate for each stand and site, according to soil, climate, economic and operational/environmental factors. Ongoing research is investigating new fertiliser products for primary fertilising (at planting) and also ways to improve secondary fertilisation (from age two years onwards).

An integral part of improving fertilisation outcomes is the identification of areas that require, and will be responsive to, fertiliser. This is enhanced through increasing knowledge of the soils and site conditions along with ongoing results from an extensive network of fertiliser trials across the estate.

The chart in the next column illustrates that there is a consistently good match between areas identified for fertilising and those receiving it. A small area was not fertilised due to Forestry Tasmania's policy of avoiding operations around sensitive times of year for the wedge-tailed eagle. We will re-schedule fertilising for these areas outside of the breeding season.

The areas identified for secondary fertilisation 2006 - 2010 and percentage of that area that was actually fertilised



Modelling the potential productivity of fertilising

An updated view of the plantation estate has indicated that the supply of high quality eucalypt sawlogs from plantations will be delayed somewhat from that published in our 2007 wood review. The impact on wood-flows of applying secondary fertiliser to the existing first rotation estate was modelled based on Forestry Tasmania's nutritional research data. The modelling indicated that secondary fertilising of existing plantations at their current age significantly improves wood-flow.

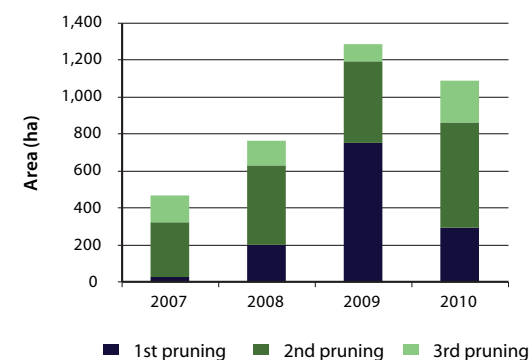
Larger long-term gains will be achieved from secondary fertilisation of plantations in their second rotation, as many first rotation sites are currently too old to respond fully to secondary fertilisation prior to harvesting. Stand establishment will also improve in second rotation. Other shorter-term approaches to increase high quality sawlog production could include more intensive plantation thinning regimes, or a large native forest thinning program.

Maximising the quality of solid wood products from plantations

In line with commitments to increase supply of high quality sawlog and veneer from plantations, large volumes of knot-free timber (clearwood) are required. Our foresight in implementing pruning regimes throughout the plantation estate since the late 1980s has been integral to this process. Pruning occurs in one to three stages, or lifts, to a height of 6.4 metres. These stages allow the trees time to rebuild leaf area (canopy), and to allow the healing over of the stem to form the knot-free timber.

Monitoring the timing of pruning, ensuring adequate numbers are pruned, and assessing the quality of pruning, are fundamental to maximising pruned wood volume. We have a robust quality standards system in place for these pruning assessments, which also provides valuable information about the growth of the stand. The chart below shows that a significant area of plantations has been pruned each year.

The area (ha) of solid wood regimes receiving first, second and third lift pruning between 2007 and 2010



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Enhancing growth of plantation stands through thinning

To maximise the growth of pruned trees, plantations need to be thinned to allow the remaining trees to grow extra volume. Thinning may be conducted at different ages and intensities, depending on the range and amount of products that can be grown on each site.

Research by Forestry Tasmania is focused on determining the best silvicultural outcomes for each stand, and the best methods to conduct thinning programs. Improvements in modelling data now allow us to schedule harvesting and predict timber volumes more accurately.

Non-wood products and services

Honey production

The majority of beekeepers in Tasmania depend on land managed by Forestry Tasmania for access to leatherwood nectar, although significant sources also occur in conservation reserves managed by other agencies. Leatherwood (*Eucryphia lucida*) trees predominantly occur in mature wet eucalypt forest and rainforest. Approximately one million hectares of forest within Tasmania has been identified as likely to contain leatherwood. Of this area, 359,000 hectares (33 per cent) occur in state forests, with about 106,000 hectares of this area being within areas zoned for wood production. Where practical, forest management prescriptions exclude leatherwood from harvesting, and since 1993, less than three per cent of leatherwood-rich state forests have been harvested. By moving largely to non-clearfelling techniques, such as variable retention, in

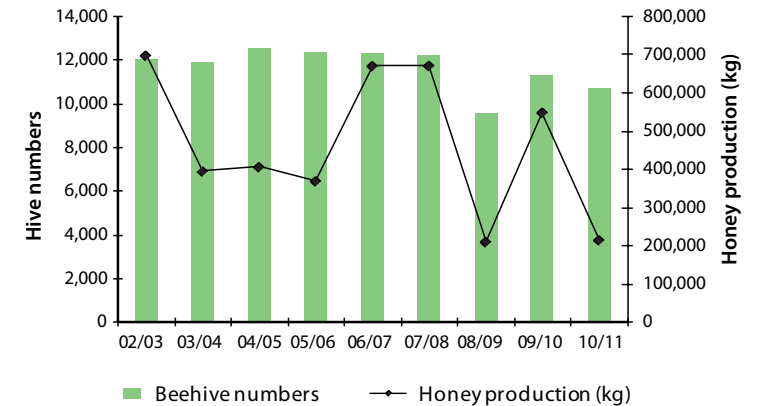
old growth eucalypt forest the long-term availability of accessible leatherwood-rich forests will be maintained at a similar level over the next 90 years. Beekeeping is flagged as a management objective for areas with a high leatherwood component under Forestry Tasmania's management decision classification zoning system, and harvesting within these special management zones takes particular account of maintaining and enhancing leatherwood sources.

Forestry Tasmania collaborates with the Tasmanian Beekeepers Association on leatherwood resource management through participation in the Murchison Leatherwood Committee (Murchison District), The Wedge Community Forest Agreement (Derwent District) and through consultation on leatherwood resource mapping in the southern forests (Huon District). A comprehensive audit of beekeeping sites and hive condition is one of the services Forestry Tasmania undertakes to ensure the integrity of beekeeping on state forest is maintained at a high standard.

State forests also provide other sources of nectar for honey production including various eucalypts, 'manuka' (*Leptospermum* spp.) and other understory species. Forestry Tasmania also works with beekeepers to maintain the integrity of the Black Bee Reserve in the southern central highlands near Tarraleah.

In 2010/11, honey production was reported by beekeepers as 214,942 kilograms with hive numbers reported as 10,722. The low production relative to previous years was attributed to cold and wet conditions and reduced flowering during the peak leatherwood flowering season.

Hive numbers and honey production as reported by beekeepers to Forestry Tasmania



Forestry Tasmania works closely with beekeepers. Beekeeping is flagged as a management objective for areas with a high leatherwood component under Forestry Tasmania's management decision classification zoning system, and harvesting within these special management zones takes particular account of maintaining and enhancing leatherwood sources.

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Dr Mark Neyland,
Division of Forest Research and Development.

The maintenance of ecosystem health and vitality is important for the long-term sustainability of the forest and relies on good management of potential threats such as fire, weeds, pests and diseases. We use an integrated approach and monitor forest health so that we can take action to prevent significant damage to the nature and condition of state forests when required. Given the important role forests play in offsetting carbon dioxide emissions, we manage state forests to ensure they continue to act as a long-term carbon store while providing a sustainable source of wood products. These wood products not only store carbon, as half the dry weight of wood is carbon, but they provide society with a low emission building and energy resource. For example, metals, concrete and plastic require much more energy to produce for the construction of buildings than wood. Replacing these materials with wood reduces greenhouse gas emissions.

Carbon and climate change

The Tasmanian position

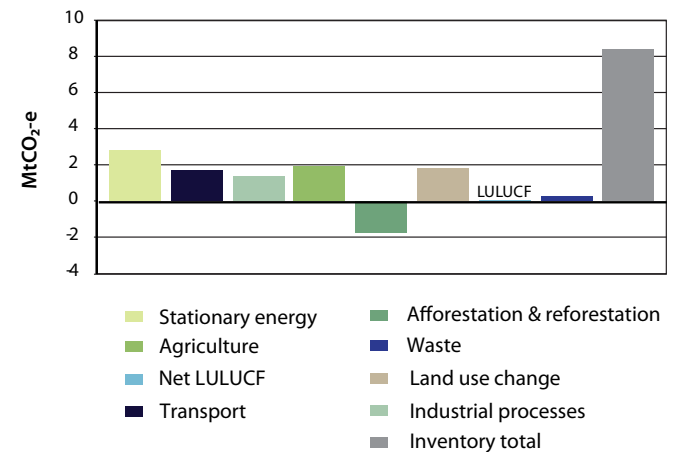
Tasmania's total greenhouse gas emissions in the 2008/09 financial year was 8.4 million tonnes of carbon dioxide equivalents⁴. This represents 1.5 per cent of total national emissions (545.8 metric tonne carbon dioxide equivalents) and is a 25.4 per cent decrease on 1990 levels. Tasmania's 2009 net carbon emission for the Land Use, Land Use Change and Forestry sector was 0.1 million tonnes carbon dioxide equivalents. The two components added together to derive this figure include a negative 1.7 million tonnes carbon dioxide equivalents removed by plantations (sinks) established since 1990 on previously cleared agricultural

⁴ Commonwealth of Australia (2011) State and Territories greenhouse gas inventories 2009

⁵ *ibid.*

land, and a positive 1.8 million tonnes carbon dioxide equivalents from greenhouse gas emitted as a result of converting forests to grassland, cropland and residential uses⁵.

Tasmania's emissions as at 2008/09, CO₂ equivalent for each of the sectors



LULUCF: land use, land use change and forestry.

Source data: Commonwealth of Australia (2011), State and Territories Greenhouse Gas Inventories 2009.

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Our carbon dioxide emissions

The main energy inputs used by Forestry Tasmania are fuel (unleaded petrol and diesel), mainly for staff transport, and electricity used to power our offices and workshops. The total emissions as a result of this energy use amount to 0.0041 million tonnes of carbon dioxide equivalents.

In order to find viable alternatives to burning the residue remaining after harvesting, we have been exploring the advantages and disadvantages of biomass energy for a number of years. Biomass energy has the potential to displace fossil fuels that would otherwise be burned to generate electricity.

Carbon research

In 2009, Forestry Tasmania established a carbon research program. This program is evaluating the various forest carbon accounting tools that are available, collating data for describing the carbon stocks in Tasmanian state forest, and collecting data to fill gaps in our knowledge of forest carbon.

This work is improving our understanding of forest carbon stocks, and our confidence in reporting them. Collaborations have been established with the University of Tasmania, the Cooperative Research Centre for Forestry, the Commonwealth Department of Climate Change and Energy Efficiency, the University of the Sunshine Coast, the Memorial University of Newfoundland, the Canadian Forest Service and the Technical University of Dresden.

This year, data from over 4,000 inventory plots across Tasmanian state forest enabled us to estimate the carbon stock in standing trees, and its distribution across the forest landscape. We estimated standing trees on state forest contained 163 million tonnes of carbon, equivalent to 123 tonnes carbon per hectare or (if the calculation is restricted solely to forested land) 133 tonnes of carbon per hectare. Very tall, old growth eucalypt forest had the highest carbon density, with individual sites ranging up to 935 tonnes of carbon per hectare, but these forests occupied just 0.2 per cent of state forest, thus contributing a very small proportion of the total carbon stocks.

In addition, we completed a formal review of the role of forest management in greenhouse gas mitigation in Australia. This supported recent reviews by the United Nations and the International Energy Agency that provide strong evidence that the optimal climate change mitigation strategy involves managing at least part of the native forest landscape sustainably to produce wood products, rather than managing all native forests as reserves. Indeed, over time, the use of wood products is the main vehicle by which forest management can contribute to reduced emissions from fossil fuels.

The reason for this is that wood products themselves store millions of tonnes of carbon, but the wood products carbon pool is dynamic, just as is the forest carbon pool. Thus, as new wood products are produced, carbon is added to the wood products carbon pool while, as old wood products are burned or decompose, carbon is released. Both the forest carbon pool and the wood products carbon pool may be thought of as dams holding varying levels of water.

However, new or recycled wood products may also substitute for materials that are more greenhouse gas intensive, either for construction or for energy generation. When wood products are used as substitutes for other materials, emissions are permanently avoided, and these avoided emissions accumulate over time, akin to placing them in a safe. The framework encompassing the full role of forests in greenhouse gas mitigation can thus be thought of as two dams and a safe, with maximal greenhouse gas mitigation deriving from forest management that is both sustainable and productive.

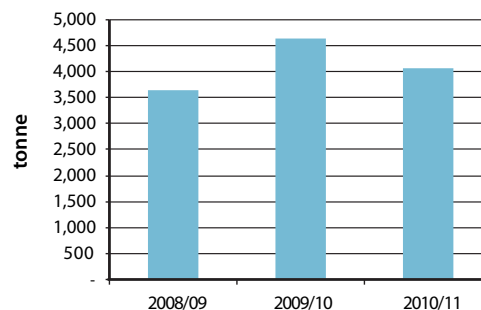
Summary of energy usage and resulting CO₂-equivalent emissions as a result of fuel used for transport and energy usage within our offices

Input	Usage	kg CO ₂ e ¹
Unleaded	222,246 litres	529,017
Diesel	1,116,521 litres	3,012,530
Oil	4,950 litres	14,456
Electricity	1,739,249 kilowatt hours	521,775
Total		4,077,778

Note:

1. Australian Government Department of Climate Change, 2009. National Greenhouse Accounts Factors. climatechange.gov.au

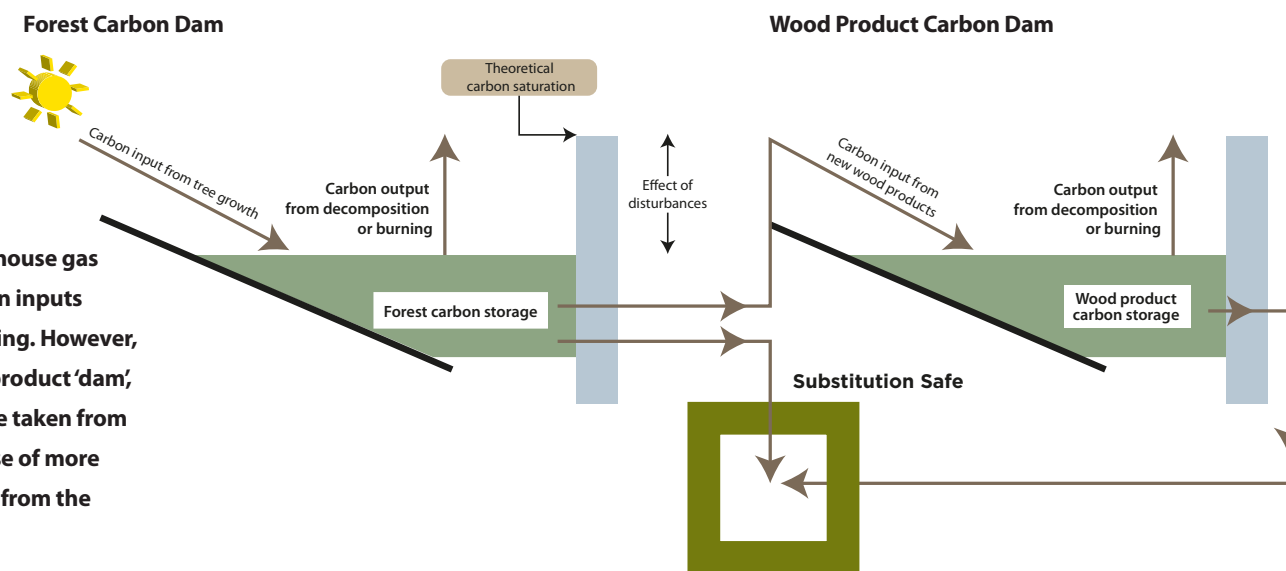
Annual amount of CO₂-equivalents produced from fuel and electricity usage



For further reading see www.hindawi.com/journals/ijfr/2010/690462/

www.fwpa.com.au/sites/default/files/PRC162-0910_Final_Report_Greenhouse_gas_mitigation.pdf

A conceptual framework for the role of forests in the greenhouse gas mitigation debate. Forests are dynamic systems with carbon inputs from forest growth and losses from decomposition or burning. However, carbon may be taken from forests and added to the wood product 'dam', a dynamic pool with inputs and outputs. Carbon can also be taken from the forest 'dam' or wood product 'dam' and substitute for use of more greenhouse-gas-intensive materials, preventing emissions from the burning of fossil fuels.



Warra carbon flux tower

We are in the process of installing an 80-metre tower in a mixed-aged stand of regrowth and mature *Eucalyptus obliqua* at the Warra Long Term Ecological Research site. This tower will house instruments to measure the exchanges (fluxes) of carbon, energy and water between that forest and the atmosphere. The Australian Government is funding the Warra flux tower through the Ozflux component of the Terrestrial Ecosystem Research Network (a National Collaborative Research Infrastructure Scheme facility). When established, Warra will become the southernmost flux site in a global network of sites and will also be measuring fluxes above the tallest forest in the Australian network of flux sites (Ozflux).

Until now, the forest carbon debate in Tasmania has focused on the amount of carbon stored in the forest (carbon stocks). Through measuring carbon fluxes we will be able to track, in real time, whether the forest is gaining or losing carbon. Knowledge of both stocks and fluxes, particularly as trees mature, will enable better decisions on the ways forest management can best contribute to mitigating greenhouse gas emissions. We will also be able to relate fluxes to fluctuations in climate and other events, such as insect defoliation. Knowledge of these relationships will, over time, help us understand how climate change might affect the productivity of these forests and whether those changes in productivity affect the forest more fundamentally, for example, causing changes in biodiversity.

While data collected from the Warra flux site will be available to national and international studies, it will also provide a catalyst to encourage complementary studies at Warra. One such study, now nearing completion, is examining how forest disturbance affects soil fluxes of other important greenhouse gases, methane and nitrous oxide.

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Air quality

Planned burning is undertaken throughout Tasmania on private land, national parks, state reserves and state forests each autumn. Burning is dispersed, and only a limited number of forest industry operations occur on any one day. This burning is important to reduce the fuel hazard resulting from logging residue and to create a seedbed for eucalypt regeneration. Eucalypt seeds and seedlings need a mineral soil seedbed, abundant sunlight and reduced competition from other plants to establish and grow. In drier eucalypt forest, burning is undertaken to remove the residues remaining after harvesting, so as to reduce the fuel load and fire hazard.

Smoke is an inevitable product of this burning process. The fine particles that make up smoke have an irritant effect and are capable of lodging in the lungs if inhaled. For this reason Forestry Tasmania attempts to minimise the effects of its burning on the Tasmanian community. A number of pro-active management options are available to assist us in achieving this goal. In particular, Forestry Tasmania, forest industry companies and the Parks and Wildlife Service coordinate their autumn burning through their participation in the Coordinated Smoke Management Strategy, a Forest Practices Authority initiative. Each day during the autumn the Forest Practices Authority sets maximum smoke load limits for Tasmanian airsheds and Coordinated Smoke Management Strategy participants manage their burning by conducting burn operations on days and in areas for which forecast weather conditions indicate the smoke will be dispersed away from settled areas.

At present the Coordinated Smoke Management Strategy only applies to burns carried out by the forest industry and Parks Wildlife Service, so many other burns go unrecorded.

We also made some significant changes to our planned burns program this year, arising from a review of procedures that followed an exceedence of national air quality standards from a Forestry Tasmania burn in the Huon Valley in April 2010. The key change was to extend the length of the burn season to reduce the number of burns taking place on any one day. In effect, this meant that burns could commence earlier than the usual start date of 15 March if conditions were suitable.

Other changes included:

- Days on which poor smoke dispersion was likely were declared 'no burn days'.
- Daily advisories were issued at or before 11.00 am on the morning of planned burns.
- An appraisal of smoke management outcomes was issued each night, including, when necessary, an explanation of factors that may have contributed to any unexpected outcomes.
- A notification to media to alert residents when we had reason to believe a regeneration burn may have contributed to poor air quality.

For more information about our planned burns communications strategy, see 'Sustaining Community Access, Safety and Heritage.'

We also continued to provide information on the Tasmanian forest industry planned burns website (plannedburnstas.com.au) to ensure the community had access to information about the location of planned burns.

Monitoring of air quality occurs at 25 sites around Tasmania. The Environment Protection Authority Division of the Department of Primary Industries, Parks, Water and Environment manages 24 of these stations, while Forestry Tasmania manages the Judbury site. Four of these stations, at George Town, Rowella and Ti Tree Bend in the Tamar Valley, and at New Town in Hobart are used to monitor Tasmania's compliance with the National Environment Protection Measure (Air Quality).

CSIRO study finds planned burns cause less smoke pollution than wood heaters

In the Huon Valley the contribution of smoke from prescribed burning to the general smoke load in the valley has been the subject of public debate. In 2009, Forestry Tasmania commissioned the CSIRO to conduct a study of the sources of smoke in the Huon Valley, which was conducted between March 2009 and November 2010.

The CSIRO study showed that there was no evidence of forest industry burning having widespread effects in the airshed. Localised effects observed at Geeveston were small in comparison to other pollution sources. In the Huon Valley generally, during the 18-month study period, wood-fired domestic heater emissions were responsible for 77 per cent of the particulate matter pollution, compared to 11 per cent from smoke plumes from prescribed burning activities, 4 per cent from waste combustion and 8 per cent from other sources.

Air quality particulate monitoring stations summary

	2006/07		2007/08		2008/09		2009/10		2010/11	
	Exceeded	Forestry Tasmania contributed	Exceeded	Forestry Tasmania contributed	Exceeded	Forestry Tasmania contributed	Exceeded	Forestry Tasmania contributed	Exceeded	Forestry Tasmania contributed
Hobart	0	0	0	0	0	0	2	0	0	0
Launceston	7	1	7	1	3	0	12	0	10	0
Georgetown	N/A	N/A	N/A	N/A	0	0	4	0	4	0
Judbury	0	0	0	0	0	0	3	3	n/a	n/a
Total	7	1	7	1	3	0	21	3	9	0

Note:

- This table provides a summary of PM2.5 & PM10 exceedences recorded by the EPA between 1 July 2010 and 30 July 2011. Figures for Judbury station have not been provided this year because the air quality monitoring equipment used to report against national standards is not operational.

Water, soils and geodiversity

Water quality

Forestry Tasmania works hard to maintain the quality of water in our streams and catchment areas. In order to minimise the risk of chemical contamination from any of our pesticide operations, we use the Pesticide Impact Rating Index computer software package, which has been tailored for forestry usage. The Pesticide Impact Rating Index determines the risk of various pesticide operations based on mobility, toxicity to indicator plant, invertebrate, fish and mammal species, and site-specific variables such as soil type and landscape. It can also assess the risk of pesticide operations to human health through comparison with the Australian Drinking Water Guidelines. It combines this data with specific site information to provide a risk assessment of the potential for pesticides

to move off site, and their potential to affect aquatic organisms. It allows us to modify our choice of pesticide, choice of timing and application rate if necessary, or implement additional precautions.

Our policy is to carry out water quality monitoring at sites where there may be a risk associated with pesticide use. The Pesticide Impact Rating Index provides our staff with a scientific means of identifying those sites, allowing our water monitoring resources to be effectively targeted. For the purpose of weed control and pest management, we applied a total of 2,705 kilograms of active ingredient to 5,858 hectares within Forestry Tasmania’s defined forest area (area certified to the Australian Forestry Standard) during 2010/11. This represents a decrease of 985 kilograms compared to the amount applied in 2009/10.

At the Forest Nursery at Perth, a total of 272 kilograms of active ingredient was applied for the purpose of controlling weeds, pests and fungi.

In addition, we conduct a water sampling program each year, in accordance with our Pesticide and Fertiliser Policy, to test pre- and post-application levels of selected chemicals in waterways. In 2010/11, we submitted 81 water samples for analysis. There was one minor detection (0.5 micrograms per litre) of Metsulfuron-methyl in a waterway arising from our operations. The concentration was well below drinking water standards of 30 micrograms per litre, but still led to a review of procedures.

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Floating rising-stage sampler for automatic collection of water samples from streams after rainfall

This year, a team led by Hydrology Research Technician Erin Trainer developed an inexpensive sampler that automatically collects water from streams when levels rise after rainfall.

One part of our management of pesticide usage involves monitoring for pesticide levels in small forest streams after spraying, by taking samples ('grab samples'). Sampling to detect off-site movement of pesticides is best done during the increased stream flow resulting from the first significant rainfall after pesticide application. However, previous studies have highlighted the difficulty of collecting samples at this time at remote sites.

The use of rising-stage samplers can largely overcome this difficulty, as these collect water samples automatically in response to rainfall without requiring staff to be present on-site. The only circumstance under which rising-stage samplers are known to fail is when water levels recede between installation and the first rainfall at the site, leaving the sampler's water inlet above the height of the rising water following a subsequent small rainfall event. We therefore developed the floating rising-stage sampler to ensure that water samples are collected automatically during water level increases, even if water levels recede beforehand.

We install the floating rising-stage sampler by placing the bottle horizontally, floating on the water surface, rather than vertically as for a classic rising-stage sampler. If the water level recedes, the bottle slides down an upright rod, but remains floating. When the water level subsequently rises, the bottle is prevented from rising, and water covers the inlet and fills the bottle. The full bottle then sinks, with an airlock protecting the water sample from mixing with the flowing water surrounding the sampler. We can then determine an appropriate collection time according to staff availability and known sample degradation rates.

Our testing has shown that the floating rising-stage sampler is capable of collecting samples in small, non-turbulent streams of the type most commonly sampled by Forestry Tasmania. It will be introduced to our operational pesticide sampling program in spring 2011. Outside forestry, the floating rising-stage sampler has potential for a range of applications across various other industries including for pollutant sampling, water chemistry studies and sediment sampling.

We thank InnovaTas and Hydrological Services for their assistance with this project.



A floating rising-stage sampler, an innovative and inexpensive sampling device that automatically collects water in response to rainfall, developed by a Forestry Tasmania team led by technician Erin Trainer.

Soil and geomorphology

In preparing a Forest Practices Plan, soil and geomorphology values are among the total set of site environmental values that we need to consider under the forest practices system. The Forest Practices Code provides guidance as to how forest operations are to be planned and conducted under specific soil and geomorphological conditions to ensure that we minimise soil damage such as compaction and erosion. In addition to applying these sound operational prescriptions and practices, some areas require special management, or even total protection, due to their sensitivity to disturbance. As at the end of 2010/11, a total of 4,400 hectares had been declared unavailable for harvesting due to the risk of erosion, with a total of 171,200 hectares managed for soil and geoconservation values.

Weeds, pests and diseases

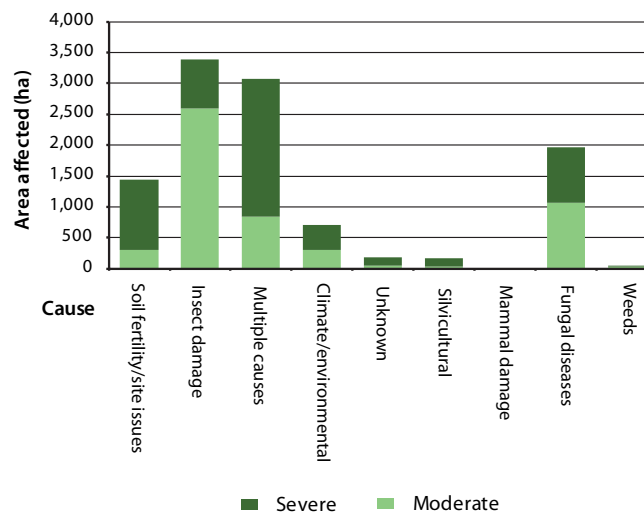
Forest health surveillance

We conduct forest health surveillance for the general detection of health problems, to manage pests and diseases in state forests. Additionally, we conduct two pest-specific management programs: one for browsing mammals, and one for integrated pest management for chrysomelid leaf beetles (*Paropsisterna bimaculata*).

This year, we undertook forest health surveillance, involving aerial, roadside and follow-up ground inspections, across approximately 38,000 hectares of eucalypt plantation. We produced notifications for field staff for 81 detected

health issues. The outstanding health issue this year was defoliation caused by the fungal pathogens *Kirramyces* and *Mycosphaerella*, which affected nearly 2,000 hectares. The unusually wet summer across the north of the state provided ideal conditions for these fungi to thrive. The six-month period from November 2010 through to the end of April 2011 was the wettest on record for the north-east of the state. There was also a large jump in the area of problems ascribed to multiple causes, which was primarily due to the interaction of soil nutrient limitations and fungal infection causing premature leaf senescence and early branch death in young plantations. Defoliation by leaf beetles was again significant and often compounded by fungal infection increasing the impact on affected plantations.

The main health problems causing moderate or severe damage in established eucalypt plantations in state forests



Leaf beetle integrated pest management involves monitoring plantations between November and March to detect high populations and to control these, if appropriate, to prevent significant growth loss. In 2010/11 the monitoring program covered 28,912 hectares of plantations between 3 and 13 years old in state forest. Approximately 33 per cent of this monitored area experienced a beetle population high enough to potentially cause significant foliar damage. Of this area, we did not control pests in 1,313 hectares (13 per cent), due to subsequent re-monitoring that showed a natural drop in the population caused by heavy rain, strong winds, and/or by the activity of the leaf beetle's natural predators.

Repeated defoliation episodes and shoot death in high-elevation areas of the state have led to some mid-rotation plantations developing chronically thin crowns. Our recent research has shown there is a very strong correlation between defoliation and volume increment. Individual growth increment declines with increasing severity of defoliation and very little wood production occurs when defoliation levels are greater than around 65 per cent.



Fungal lesions in a hardwood plantation. Tasmania's unusually wet summer made fungal infections a key forest health issue in 2010/11.

sustaining CARBON STORES, CLEAN AIR, WATER AND HEALTHY FORESTS

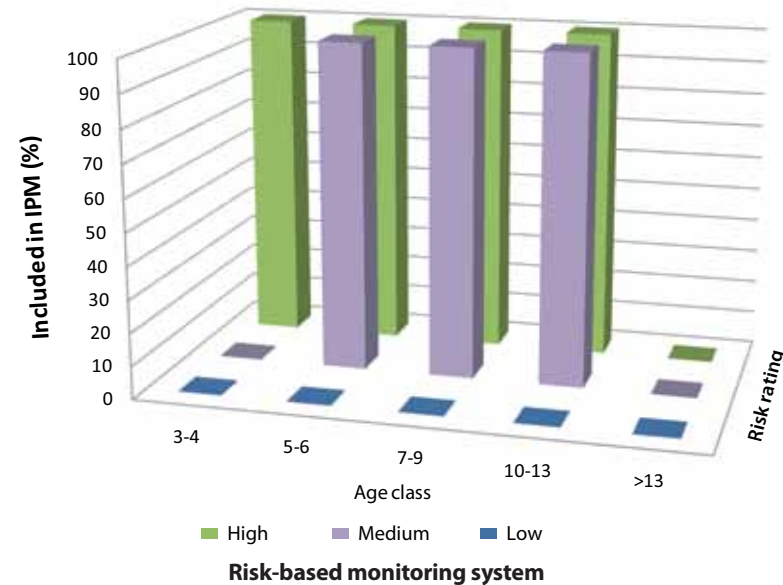
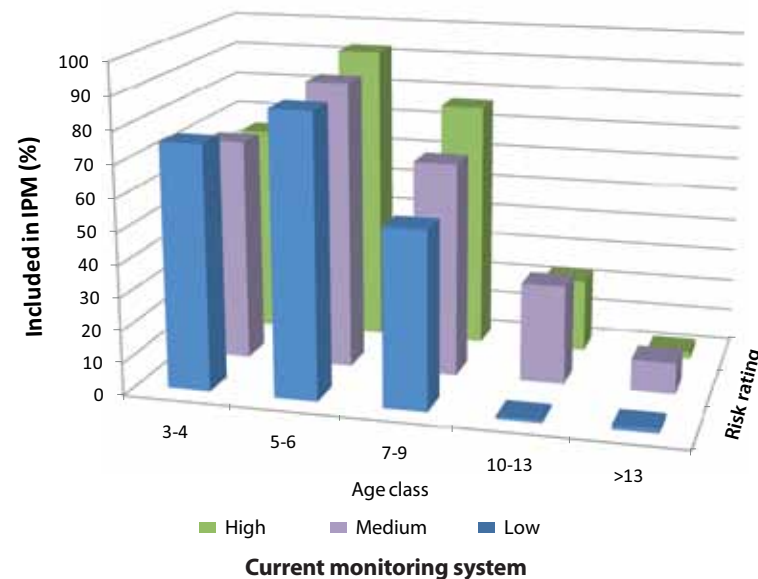
Risk assessment for defoliation in plantations

A recent honours study by Sophie Edgar at the University of Tasmania examined the spatial pattern of leaf beetle populations in the landscape and attempted to identify factors that could predict where above-threshold leaf beetle populations are most likely to occur. Two factors from a range of models were consistent significant predictors of above-threshold leaf beetle populations: these were elevation greater than 550 metres and locations within 10 kilometres of *Poa* grasslands. Sophie classified the plantation estate using a simple risk model based on these two attributes: *High risk* – both greater than 550 metres and within 10 kilometres of *Poa* grassland; *Medium risk* – greater than 550 metres elevation or within 10 kilometres of *Poa* grassland; and *Low risk* – neither greater than 550 metres elevation nor within 10 kilometres of *Poa* grassland. Sophie subsequently applied these rankings to operational results over the past four years and showed that, when compared to low risk areas, plantations with a high risk-rating had:

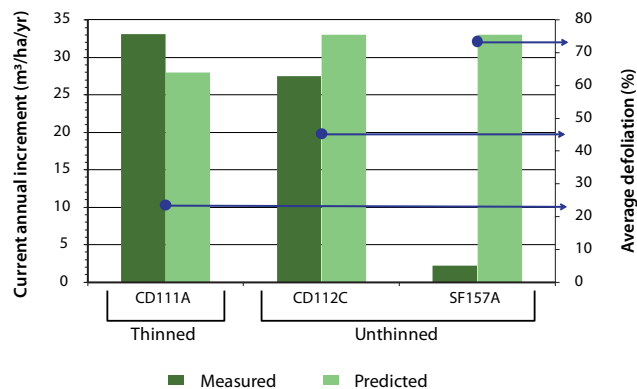
- between two and seven times the proportion of monitoring events recording above threshold populations;
- leaf beetle populations that, when present, were significantly larger (almost double);
- five times the proportion (60.4 per cent) of plantations sustaining above-threshold populations over consecutive years; and
- nearly seven times the prevalence of severe defoliation.

This information will enable the development of a risk-based monitoring system in which monitoring can be focused on the older-age, high-risk sites.

Proportion of plantation estate by age class included in IPM using current and risk-based monitoring systems



Impact of severe defoliation on annual volume increment in three mid-rotation *E.nitens* plantations in north-east Tasmania



Use of pesticides

We strive to manage native forests organically, using processes that mimic nature. Generally, native forests are managed without the use of pesticides (herbicides, insecticide and fungicide), except in exceptional cases where introduced weeds, pests and disease pose an unacceptable risk to the environment. For commercial eucalypt and pine plantations, pesticides are required to reduce weed and pest infestations to acceptable levels. Fertilisers are required to promote optimum growth.

The usual chemical pesticide regime for plantations is to apply herbicides annually in the first two years and insecticides or fungicides in response to pest outbreaks. Weed control usually takes place as an initial site clean-up to remove difficult-to-kill species prior to planting the crop trees. Once planted, and depending on weed growth, follow-up weed control

may be required in the same planting season or later in the following year. For each of these types of spraying operations we prepare a comprehensive spray plan in which streams, wet areas and mandatory buffer strips are delineated.

Fuel and chemical spills

We record all accidental spills of fuels or chemicals in our corrective action request system and manage them to ensure that potential adverse environmental effects are minimised. We notify the Department of Primary Industries, Parks, Water and Environment of spills greater than 20 litres. As a result of a single recorded spill in 2010/11, approximately 50–100 litres of herbicide spray mix were released into the environment. This occurred when a spray fitting cracked while a contractor was performing a ground based spraying operation.

Fire

Bushfires have many causes, including lightning, escaped campfires, planned burning operations, arson and carelessness. Bushfires are highly variable in area burnt, fire intensity and event duration, all of which depend to varying extents on the interaction of weather conditions and topography, and fuel load, type, and arrangement. Forestry Tasmania covers all aspects of fire management: Preparedness, Prevention, Response and Recovery.

Preparedness includes the preparation of fire management and fire action plans, the training of staff, the development and purchase of equipment, the construction and maintenance of fire trails, fuel breaks and reliable

water storages, and the development of close working relationships with other fire managers and emergency services, particularly the Tasmania Fire Service and the Parks and Wildlife Service.

Prevention includes the fire lookout and detection system, standby arrangements for staff, and vegetative fuel management.

Response is the reaction to fire reports, investigation, assessment and suppression activity. Again in this we are assisted and supported by our partners under the Inter-agency Fire Management Protocol, the Tasmania Fire Service and Parks and Wildlife Service.

Finally, Recovery encompasses the multitude of post-fire rehabilitation tasks, and the after-action review. The lessons learnt and conclusions drawn from these reviews feed back into Preparedness activities.

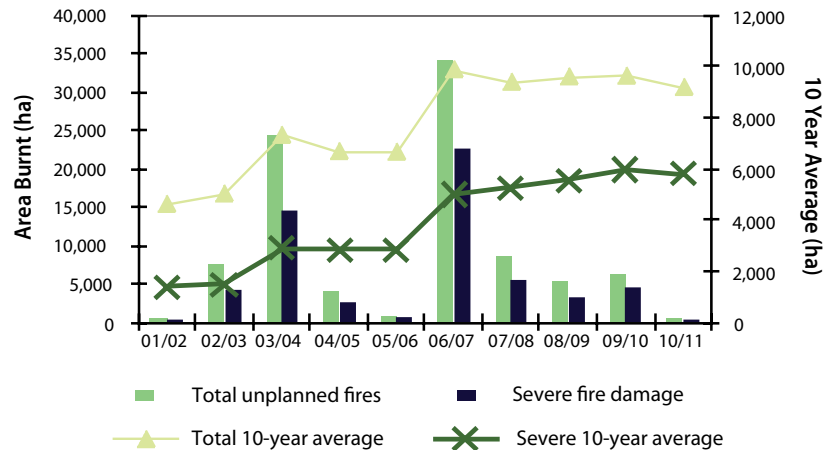
In 2010–11, approximately 375 hectares were burnt as a result of 36 unplanned fires. The most disturbing feature of the 2010–11 fire season was a spate of illegal or unauthorised fires in the Huon District. Fortunately, all of these were kept to a small size by the prevailing wet conditions and prompt action by District personnel.

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The relatively small area burnt is attributed to the unusual weather pattern experienced across the state during the 2010–11 summer. Several short periods of widespread heavy rain that occurred until mid-February 2011 prevented the widespread drying of fuels, and so reduced the opportunity for fires to occur. Nevertheless, we incurred additional costs of \$132,685 in the course of fire suppression activities during 2010/11.

We use fire as a tool in silvicultural operations, either in the form of low intensity burns for debris removal in drier forest types, or high intensity regeneration burns to create receptive seedbed in wet forest types. We completed broad-area fuel reduction burns (burns that are strategically planned to protect nearby assets, or for ecological purposes such as coastal heath or buttongrass management) on 7,700 hectares. The wet summer interfered with plans to commence the regeneration burning earlier than the traditional starting date of 15 March. Although some isolated coupes were in a condition to burn, significant regeneration burning was not possible until later in March this year.

Area burnt by unplanned fires in 2010/11 compared with the 10-year average



The wet summer of 2010/11 saw a lower-than-average area of state forest burnt by wildfire; however, a number of fires were illegally lit in the Huon District.

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Forestry Tasmania open day.

Managing the non-wood values of state forest – tourism and recreation, education programs, heritage values, and our relationships with stakeholders – is a core component of sustainable forest management. The Forestry Act and our Sustainability Charter mandate that we will balance economic with non-economic values – and the community clearly expects that we will manage forests to provide opportunities over and above timber production.

These activities form a considerable component of our Community Service Obligations as defined under the Forestry Act. We carry them out in addition to the Community Service Obligations that are specified in our accounts – management of Forest Reserves and the Special Timbers Zone – and they are non-commercial activities funded from the sale of wood products.

The forest industry downturn has thrown into sharp relief the relationship between revenue generated by forest harvesting and the cost of providing services to the community. A special report by the Auditor-General into Forestry Tasmania's financial performance confirmed that we have foregone revenues of \$30–\$40 million in Community Service Obligations since the government stopped funding them in 1998.

One of the most visible effects of the downturn on our capacity to deliver Community Service Obligations was our inability to fund repairs to recreation infrastructure following the summer floods in the Meander Falls and Blue Tier Forest Reserves. These areas, which were known to attract intra- and interstate visitors into regional

communities, will remain closed to the public until alternative funding sources are identified. In previous years, repairs to recreational facilities were undertaken as a matter of course by Forestry Tasmania.

Other recreation sites around the state remained popular throughout 2010/11, demonstrating the major role Forestry Tasmania plays in providing key visitor facilities. An EMRS survey conducted in June 2011 found 26 per cent of respondents had visited Liffey Falls, 21 per cent, Hollybank Forest Reserve and 16 per cent, the Styx Big Tree Reserve.

International Year of Forests 2011

Forestry Tasmania is a proud participant in the United Nations International Year of Forests 2011, and an official logo holder for the year. The logo, and the theme 'Celebrating Forests for People,' reflect the role that forests play in all of our lives by providing habitat for biodiversity, food, medicine, clean water and carbon storage, and the need for them to be managed for both conservation and sustainable development.

The values expressed in the logo and the theme reflect Forestry Tasmania's corporate values and the aims of the Sustainability Charter, which demonstrate the interrelationship between the forest manager, the wider community and the environment.

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To celebrate the year, we developed a special calendar of events that included:

- an official launch and open day led by International Year of Forests Ambassador, Ms Rebecca White MHA, at Forestry Tasmania's Melville Street Dome;
- opening of new accommodation at the Tahune AirWalk (see next section);
- special events on state forest, including Targa Wrest Point; and
- weekly promotions of recreation attractions on state forest via the blog, '52 places to visit'.

In addition, we unfurled a giant banner promoting the Year at our Melville Street Headquarters, bringing its significance to the attention of the people of Hobart.



International Year of Forests Ambassador, Rebecca White MHA, launched our celebrations for the year by abseiling in our Melville Street 'forest in the city'.

Adventure Forests

Following the re-positioning of our tourism business in 2009/10, which saw us transition from our previous role of developer to that of enthusiastic landlord, we developed new business and marketing plans to consolidate the Adventure Forests brand.

Product marketed under the Adventure Forests brand includes the Tahune AirWalk and the Eagles Eyrie at Maydena, which are operated by Forestry Tasmania; Hollybank Treetops Adventure, jointly owned by Australian Zipline Canopy Tours and Forestry Tasmania; and Tarkine Forest Adventures, which is leased to a family company, GMG Pty Ltd. In addition, in 2010 the State Government requested that Forestry Tasmania assume management of the Forest and Heritage Centre in Geeveston.

With the operators of Hollybank Treetops Adventure and Tarkine Forest Adventures responsible for strategic and tactical management at these attractions, one of Forestry Tasmania's tourism priorities this year was the renewal of the Tahune AirWalk product. The business plan recognises that the AirWalk has been in the mature stage of the product life cycle for a number of years now, with visitation plateauing at 80,000 per annum, and that investment in new product is needed to increase this number to the annual target of 100,000.

With this in mind, Forestry Tasmania, with Park Homes, constructed the AirWalk Lodge during 2010/11 to transform Tahune from a day trip to an overnight destination. The AirWalk Lodge is a 25-bed budget accommodation facility targeted at families, backpackers and school groups.

It incorporates family and bunk rooms; a communal room equipped with kitchen, dining area, wood fire, DVDs and books; and shared bathroom facilities. The design of the lodge also provides for wheelchair access.

Forestry Tasmania developed the AirWalk Lodge in consultation with Huon Valley Council, which had identified a number of opportunities for accommodation investment within the region. While these included several upmarket styles of accommodation, the most urgent need in the valley was for budget traveller and backpacker facilities. At a total project cost of \$210,000, the development was a modest investment ideally suited to both visitor demand and Forestry Tasmania's constrained financial position.



We opened the AirWalk Lodge in 2011 as part of a strategy to transform Tahune from a day trip to an overnight experience.

In addition to the accommodation development, we also enhanced the product mix on offer to day visitors at the AirWalk. We continued to implement the interpretation plan for the AirWalk, which included increased availability of guided tours, developed new mountain bike tracks, and partnered with a private sector operator to provide tours on 'Segway' personal transporters.

As foreshadowed in the previous reporting period, we also developed a concept to transform the Forest and Heritage Centre into a multimedia interpretive centre, which would have ensured its future as a viable tourism attraction in its own right. However, suitable sources of funding are yet to be determined. An alternative concept may be explored in anticipation of participating in a competitive grants process in 2012. In the meantime, the facility serves as the administrative headquarters for Adventure Forests.

During 2010/11 we also sought to consolidate the product mix at the Eagles Eyrie, Maydena. Forestry Tasmania developed this attraction as a community service to Maydena after the initial plans for a 'hauler' to the summit of Abbots Peak proved unviable. However, as Maydena is not part of Tasmania's recognised touring routes, the Eagles Eyrie continues to face a number of marketing challenges and we do not forecast that it will ever become a mass tourism destination in the vein of the AirWalk. Accordingly, this year we focused on developing a range of high-yield product such as cooking classes and small group tours, and next year we will focus on further refining product partnerships.

This work will underpin our goal to lease the attraction under our franchise model, as we believe it is more suited to a small and dynamic family business.

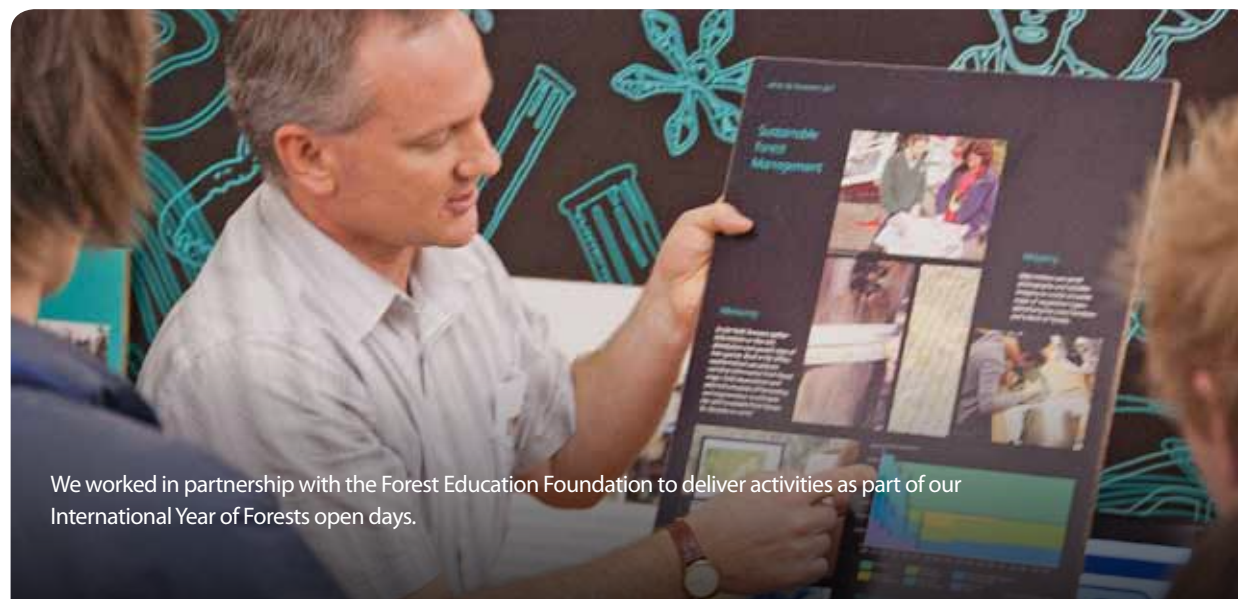
The year also saw strengthening of the Adventure Forests brand under the new marketing plan. Under the guidance of Adventure Forests manager Roland Schibig, who was appointed in 2010 and brings extensive international tourism experience to the role, Forestry Tasmania develops and implements the brand marketing strategy for the entire tourism portfolio. This strategy is led by the Adventure Forests bookings website, along with targeted brand promotion in the print and electronic media, cooperative marketing and links to broader destination marketing. While each product also undertakes its own tactical marketing, all operators work collaboratively with Forestry Tasmania to maintain the Adventure Forests 'look and feel' and increase brand awareness in the marketplace.

During 2010/11 market awareness of the Adventure Forests website continued to increase, and was particularly enhanced by television advertising in the peak season that doubled traffic to the website compared to the same period the previous year. In 2011/12 we plan to implement further marketing initiatives aimed at driving traffic to the website. We anticipate television advertising in the 2011/12 peak season and increased internet marketing, including Google Ads campaigns and links to strategically important websites.

Forest education

Forestry Tasmania continued to support, and work closely with, the Forest Education Foundation in 2010/11.

The National Forest Learning Centre, opened in the previous financial year, proved to be a centrepiece of our Head Office complex in Hobart.



We worked in partnership with the Forest Education Foundation to deliver activities as part of our International Year of Forests open days.

sustaining SAFETY, COMMUNITY ACCESS AND HERITAGE

We worked in partnership with the Forest Education Foundation to deliver a range of activities as part of International Year of Forests open days held in January and June, which proved to be highly popular school holiday events.

Health and safety

We continued this year to aim at creating a zero workplace injury and illness culture.

In the 2010/11 financial year, we sustained eight Lost Time Incidents, although six of the affected employees returned to work within one week. Unfortunately, the number of Lost Time Incidents did not improve from the 2009/10 financial year.

After analysis of the Lost Time Incidents, corrective actions included:

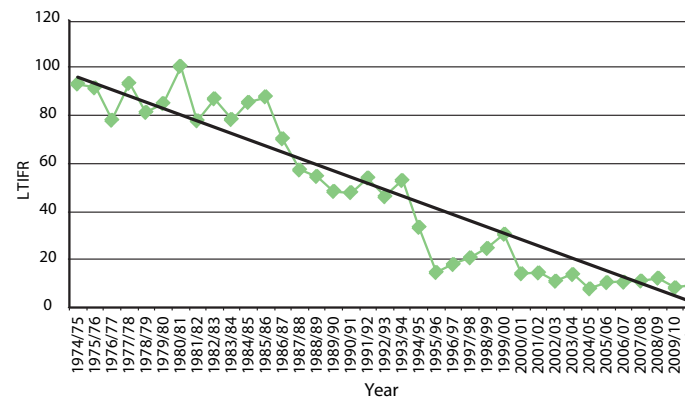
- some further protective equipment against leech bites;
- further mentoring of staff on the behaviour of fire; and
- a continuation of strategies to enhance employee safety focus, so that there is a belief that 'I am responsible for my own health, safety and wellbeing as well as the health, safety and wellbeing of my fellow employee'.

The plan involves senior management being even more visible in the workplace, promoting and participating in safety management, including monitoring of work sites.

In addition, Forestry Tasmania has a more strategic focus on positive performance indicators to measure safety behaviour, for example, measuring the number of safety

inspections carried out in a workplace against the specified required frequency. Positive performance indicators are pro-active measures over which an organisation can exercise full control in an effort to influence eventual safety outcomes.

Our long-term safety performance as measured using the lost time injury frequency rate



The additional focus on contractor safety over the past two years has led to a significant improvement, especially in regards to harvesting contractors. Forestry Tasmania has contracted the Tasmanian Skills Institute and the Tasmanian Forest Contractors Association to deliver increased independent safety audits and inspections as well as further safety training and mentoring. The result is an LTIFR for harvesting contractors of 6.9 compared to a performance measure of less than 8. This has been an excellent performance.



Our senior managers are becoming even more visible in the workplace, encouraging the development of a strong safety culture among our staff.

Workers compensation

Our number of workers compensation claims remained at an equal record low, with 19 new claims received in 2010/11. However, the cost of new claims was the highest for the last five years, reflecting increases in medical costs and extended rehabilitation services. The cost of all open claims, while increased, was within the performance target.

With the commencement of revised workers compensation legislation in July 2010, we trained two statewide injury management coordinators, plus return-to-work coordinators in each district.

Aboriginal and historic cultural heritage

We undertake archaeological surveys as part of our pre-harvest assessment of special values. These surveys may detect new sites, or re-detect old sites that were found by us in the past and mentioned in historical records, but which had no contemporary map reference. Once we find archaeological sites, we assess and protect them.

These sites may include former mines, tramways, huts, artefact scatters, boilers and old mill sites.

This year, we surveyed 1,163 hectares for non-Aboriginal heritage, and found 33 new sites.

These included timber tramways, huts, water races and locations of early prospecting implements. We also found five new Aboriginal cultural heritage sites as a result of surveys conducted over an area of 756 hectares.

Community engagement

EMRS polling

Forestry Tasmania again commissioned an opinion poll by respected social researcher EMRS to ascertain the strength of its brand in the community. The survey of 600 people was one in a series conducted since 2008, and found that Forestry Tasmania's reputation as a good corporate citizen was still strong, although as was to be expected, its rating had slipped slightly during what had been a period of considerable turmoil in the forest industry. Reflecting concerns about the uncertainties in the industry and their effect on economic growth, the survey also found that 60 per cent of respondents nominated 'creating jobs' as the most important attribute of Forestry Tasmania – the highest level since 2009.

Improved communications during regeneration burning season

In 2011, the Corporate Relations and Tourism Branch in conjunction with the Fire Management Branch undertook a significant overhaul of the communications program associated with the regeneration burning season. In prior years, we had relied primarily on the Planned Burns website (plannedburnstas.com.au) to inform the community about regeneration burns. However, following the review of the previous year's burning season, we learned there were a number of improvements we needed to make to our communications to ensure the community was provided with an increased level of information.

This year, we implemented additional communications initiatives to raise awareness about our management of the regeneration burning program, including:

- daily advisories issued to media on the morning and the evening of planned burns, and which were broadcast on local ABC Radio;
- information flyers in the daily and regional newspapers; and
- a media conference held by the Managing Director at the start of the regeneration burning season.

These initiatives received a positive reaction from our stakeholders, and it is to be hoped that other forestry companies and private landowners who carry out planned burning will follow a similar approach in the future.

sustaining SAFETY, COMMUNITY ACCESS AND HERITAGE

Television advertising

Forestry Tasmania allocated most of its modest advertising budget to growing sales through Island Specialty Timbers, the Adventure Forest tourism portfolio and the Trees on Farms program.

Forester (now retired) Paul Smith was the face of a 'Job Well Done' series of commercials raising awareness of our contribution to the Tasmanian economy and the pride we felt that areas nominated by environmental groups as having high conservation value, included coupes that had previously been clearfelled, burnt and regrown using our proven organic regeneration methods. Reflecting our non-commercial objectives, the third in the series promoted recreational facilities we provide on state forests, focussing on the '52 places to visit' blog launched as part of our contribution to International Year of the Forests celebrations. The 'Job Well Done' series was part funded by Timber Communities Australia, the Tasmanian Country Sawmillers Federation and other customers.

Media relations

As in previous years, EMRS polling found that the majority of the community continued to gain most of its information about Forestry Tasmania from the media, which once again highlighted the importance of accurate and balanced reporting on forestry issues. We continued to release information pro-actively to the media to maintain openness and transparency in our operations.

During the year we issued 208 formal media releases, which included 77 advisories about regeneration burns, and was a significant increase on the previous year's total of 111. Many more media issues were also dealt with informally by our Corporate Relations and Tourism Branch, and we held media conferences on key issues such as the release of our half-yearly financial result.

Release of Right to Information responses

The *Right to Information Act 2009* came into effect on 1 July 2010, replacing the *Freedom of Information Act 1991*. The new Act places a greater emphasis on pro-active disclosure of information without the need for formal applications. Active disclosure is the voluntary release of information on receipt of a request. It also provides the public with an enforceable right to information under assessed disclosure, restricted by limited circumstances. Assessed disclosure is required if some of the information being sought is exempt under the Right to Information Act.

Reflecting the requirements of the new Act, in 2010 we made a number of changes to our website to allow for pro-active disclosure of information, including the provision of Forest Practices Plans on demand online.

Forestry Tasmania encourages people to seek information under active disclosure. Four of 24 applications for assessed disclosure were made available under active disclosure. The number of applications received in 2010/11 was a significant increase on the previous year's 11 Freedom of Information requests. In accordance with our internal policy, all finalised applications for assessed disclosure were uploaded to our website and released to the media, except those relating to personal information.



Media relations remained a key priority for us in 2010/11. Media conferences were called for significant announcements, including our half-yearly financial result.

Branchline

In response to stakeholder feedback, we again reviewed the format of our e-newsletter, *Branchline*, in 2010. Now published in an informal email, it remains one of the primary means of providing stakeholders with current information about our activities and issues that affect our business. We continued to publish the newsletter on a flexible schedule to ensure it remained timely and relevant. This year we produced 19 issues for our Australian stakeholders, and four for our Japanese stakeholders.

Going Bush

A fourth series of the popular Forestry Tasmania–Southern Cross television series, *Going Bush*, was aired in 2011. This year marked a significant milestone for the program, as it was produced with the involvement of VicForests and, for the first time, shown in regional Victoria, New South Wales and Queensland. The series also included viewer-suggested stories about threatened species, best practice four-wheel driving, special timbers and bush crafts.

Community Assist Program

The Community Assist Program operates as a joint venture between Forestry Tasmania and Southern Cross Television, providing funding for individuals and organisations striving to make their communities better places in which to live. The program is aligned to Forestry Tasmania's core values.

Forestry Tasmania made the difficult decision to curtail the Community Assist Program in 2010/11 in light of our financial circumstances. We did not issue a call for funding applications, instead determining that the most prudent course of action was to continue with multi-year sponsorships awarded in 2009/10, including major sponsorships with Football Federation Tasmania, Ben Lomond Descent and the Derwent Valley Autumn Festival. Full details of sponsorships provided are tabled in Appendix 2 – Data Tables.



The popular Forestry Tasmania–Southern Cross television series, *Going Bush*, was this year produced with the involvement of VicForests and aired in mainland regional areas.

sustaining SAFETY, COMMUNITY ACCESS AND HERITAGE

Care for People schools award

The 'Care for People' schools award was again offered in 2010/11. The awards recognised students who made a significant contribution to their communities.

All Tasmanian schools were eligible to participate in the award, and were approached by Forestry Tasmania during the school year to nominate a student who had demonstrated compassion or thoughtfulness towards others. Participating schools were awarded a perpetual shield on which the student's name was inscribed, and the student was awarded a backpack, drink bottle, sunhat and a family pass to an Adventure Forests tourism attraction.

This was the fourth year in which the award was offered, and many schools participated for the third or fourth time. In total, 119 students were presented with the award, up from 115 students the previous year.

Planet Ark Schools Tree Day

Planet Ark Schools Tree Day is an annual event that aims to plant one million native trees and shrubs across Australia. It provides an opportunity for school students to make a contribution towards the natural environment, by developing a sense of ownership and responsibility towards nature. Planet Ark also provides teachers with a range of resources, including activities and lesson plans, that help make Schools Tree Day a meaningful event for all involved.

Forestry Tasmania has been a proud supporter of Schools Tree Day for the past four years. In 2010/11, some 10,000 seedlings were grown especially for the event at the Forest Nursery at Perth, and our community liaison coordinators received requests for seedlings from over 50 schools.

Understanding the areas on which we need to work

Questions, concerns or complaints about our operations and activities are received as a result of people writing or speaking to the Office of the Minister for Energy and Resources or through communicating directly with us. Some of these questions, concerns and complaints are outside our control, for example, those that relate to legislation. However, those that are relevant to us are recorded in our corrective action request system.

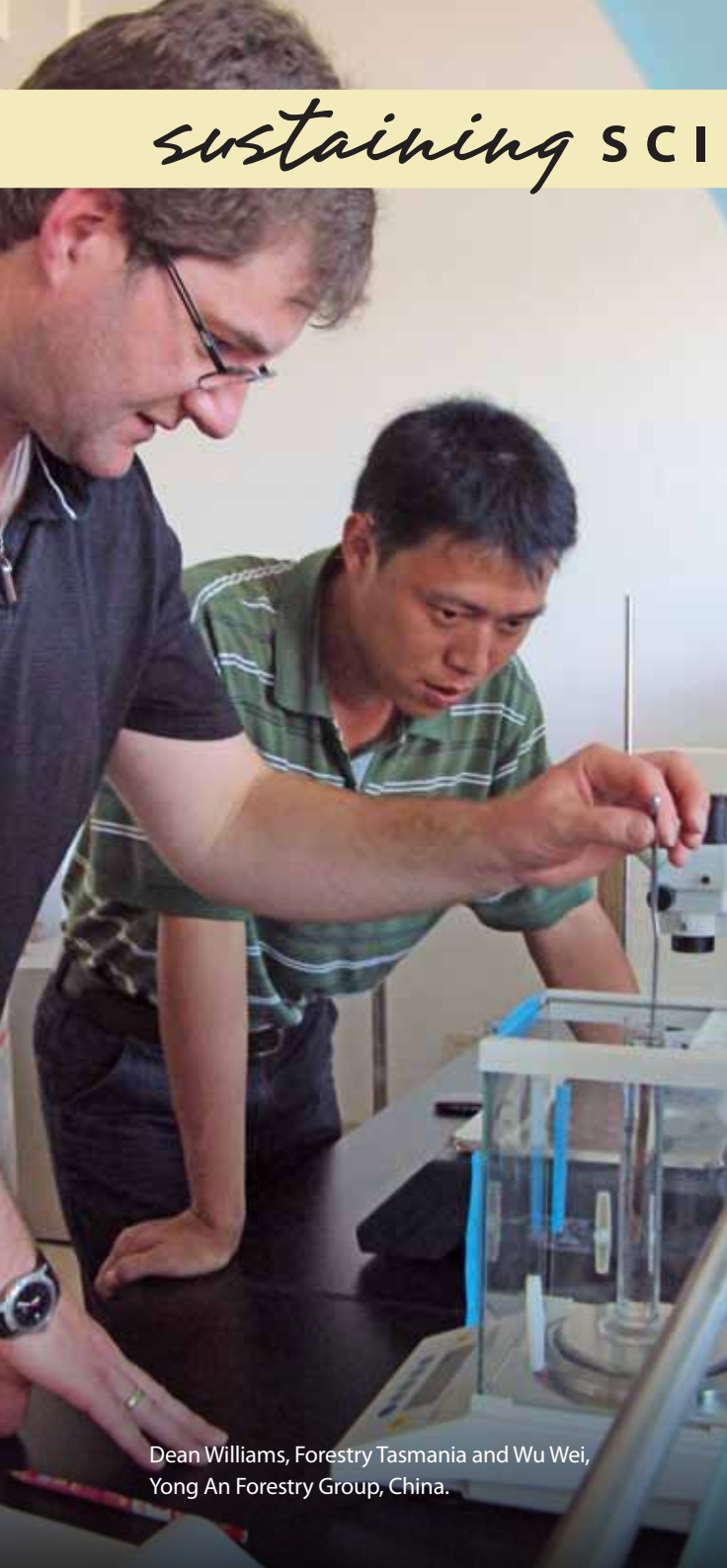
Through this process, a staff member is nominated as being responsible for addressing the specific issue raised. Responses usually involve a letter, a telephone call or a meeting. In some cases, the response to a complaint includes an operational response (that is, attending to a reasonable request).

The Office of the Minister for Energy and Resources received 66 letters or other forms of correspondence regarding Forestry Tasmania in 2010/11, one fewer than last year. Of these, 16 per cent related to roads, 7 per cent to planned burns, 7 per cent to special timbers, and 7 per cent to the Forest Statement of Principles.



Just some of the 10,000 seedlings we provided for Planet Ark Schools Tree Day this year.

sustaining SCIENCE-BASED STEWARDSHIP



Dean Williams, Forestry Tasmania and Wu Wei, Yong An Forestry Group, China.

Our objective is to comply with all relevant legislation and supplementary standards and we aim to continually improve the productivity of state forest and our management practices. We achieve this through maintaining a practical research program, independent third-party certification, and by ensuring our organisational capacity is supported by the collection and use of accurate information, effective systems and procedures and skilled personnel.

Legal compliance

Forest Practices Act

All forest practices must be carried out in accordance with a certified Forest Practices Plan that contains specifications for harvesting, road works and reforestation activities in accordance with the Forest Practices Code. The code requires special provisions to protect natural and cultural values, including flora, fauna, geomorphology, soils and water, cultural heritage and visual amenity.

The forest practices system emphasises high environmental standards through planning, training and education. Where problems arise, corrective action, including the remediation of damage, takes place. This is followed by review, analysis and improvement of systems to ensure that similar errors do not occur in the future. Where the problem is considered serious, legal enforcement is applied in a number of ways. This includes verbal or written notification by a Forest Practices Officer issued under Section 41 of the Forest Practices Act. The Forest Practices Authority can also prosecute for failure to comply with a certified Forest

Practices Plan or may impose a fine as an alternative to prosecution.

No notices were issued to Forestry Tasmania or our contractors operating on state forest under Section 41 of the Forest Practices Act in 2010/11.

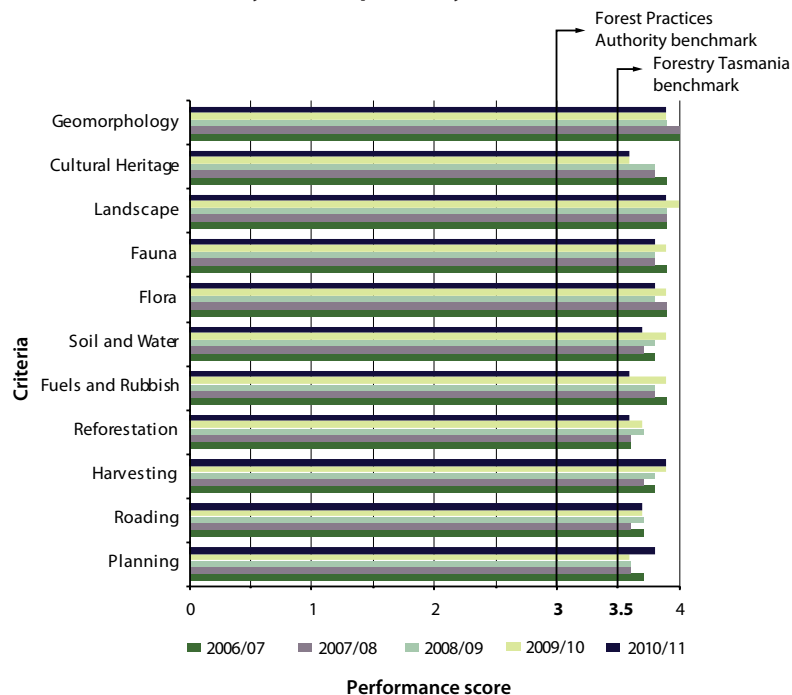
The Forest Practices Authority undertakes an independent annual audit of a representative sample of Forest Practices Plans. The audit covers forest harvesting, road works and site preparation at various stages of completion. In addition to the assessment of operational performance, the audit checks the standard of the plan, including all assessments and procedures required by the forest practices system. The overall outcome of the 2010/11 Forest Practices Authority audit was an average statewide rating of 3.8, which represents an 'above sound' result and is above our own benchmark performance rating of 3.5.

According to the Forest Practices Authority, the 2010/11 audit was based on a sample size of 32 Forest Practices Plans, which is considered sufficient to give a meaningful performance result. Overall the performance was very good, with only four follow-up investigations initiated by the Forest Practices Authority as a result of these audits. These investigations related to coupe dispersal, landing debris being left too close to a coupe boundary and a post-harvest archaeological survey not being carried out. A stream crossing on state forest that was contrary to the Forest Practices Plan is also being investigated with Gunns, who were overseeing the operation.

sustaining SCIENCE-BASED STEWARDSHIP

The Forest Practice Authority issued one fine of \$3,000 to us in 2010/11, as a result of some browsing control contractors laying traps within the boundary of a designated eagle nesting season exclusion zone. We reviewed our browsing management practices in order to reduce the likelihood of another similar breach.

Our performance measured by the Forest Practices Authority over the past five years



Workplace Health and Safety Act

One Workplace Standards notice was issued to us under the Workplace Health and Safety Act during 2010/11. This related to several minor issues at the Huon Wood Centre Merchandiser site. The issues were addressed to the satisfaction of Workplace Standards.

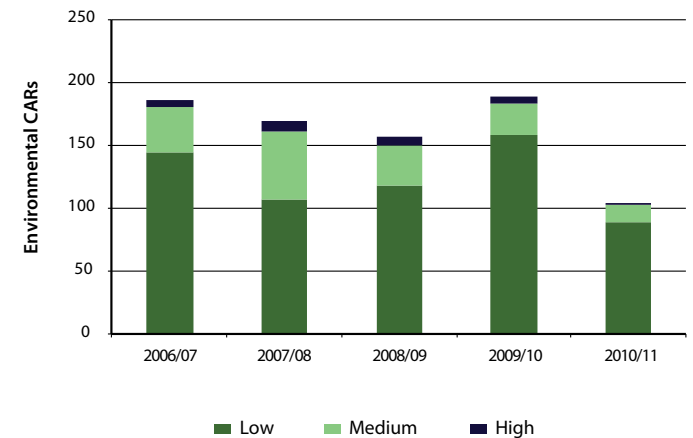
Certification

Forestry Tasmania's sustainable forest management performance is independently audited against three certification standards: the Australian Forestry Standard (AS4708); Environmental Management Standard (AS/NZS 14001); and the Occupational Health and Safety Standard (AS4801). These requirements are managed through Forestry Tasmania's forest management system. During the external audit undertaken by our third party auditor NCS International in March 2011, it raised a major non-conformance as a result of its finding that our contractor management system procedures were not being fully implemented. We prepared a comprehensive action plan, endorsed by the auditor, to address this finding, thus reducing it to a minor non-conformance.

In addition to the external auditing of our systems, ongoing monitoring of our forest operations and activities is also a strong component of our internal forest management system. If we find any non-conformances as measured against our standard operating procedures, we lodge a corrective action request, which includes taking the immediate corrective action required and allocating a responsible person to ensure the issue is fully addressed.

For 2010/11, 104 environmental issues were registered, of which two were categorised as high, 14 as medium and 88 as low.

Number of environmental corrective action requests raised by reporting category



The environmental corrective action requests categorised as high were:

- smoke from a Forestry Tasmania burn causing poor air quality over Burnie; and
- the failure to include an apiary site and landscape values in forest practices planning for a coupe in Huon District.

Both of these incidents were subject to our root cause analysis process. This process identifies the reasons for the problem and identifies actions that we can implement in order to minimise the chance of recurrence.

In addition to the regular monitoring of operations, we also raise corrective action requests through findings made in internal and external audits. In 2010/11, we raised a total of 105 corrective action requests following six audits (one external and five internal).

View our audit public summary reports:
forestrytas.com.au

Research

We have a significant investment in research and development, and our research capacity is concentrated in our Division of Forest Research and Development. The three goals of productivity, sustainability and profitability guide the division's research planning, complemented by our communications role. Much of the Division of Forest Research and Development's research is performed in collaboration with others, as this is by far the most effective way to bring into Forestry Tasmania the wide range of relevant expertise and knowledge in other institutions. Examples of these collaborations are participation in the Cooperative Research Centre for Forestry, the Landscape Logic Commonwealth Environment Research Facilities hub, the Australian National Flux (OzFlux) Network, and a number of Australian Research Council linkage grants.

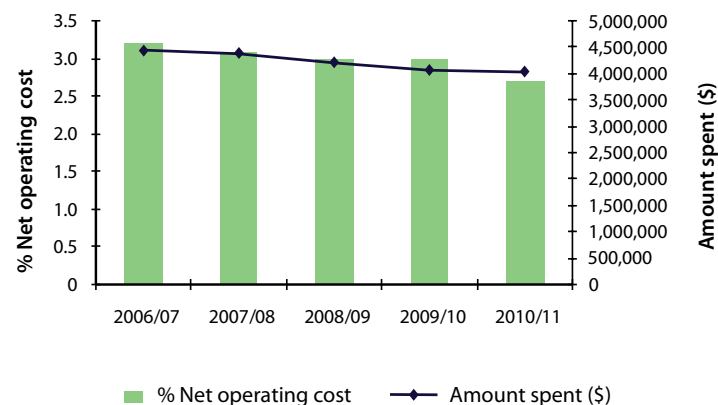
Research outputs, and science more generally, inform forest management and operations directly as part of Forestry Tasmania's daily business, but it is also important that we specifically demonstrate and communicate this to the wider community. Our scientific and technical staff are

involved in publicising research and its implementation, including a significant involvement in National Science Week activities. During National Science Week this year, school groups visited the Tahune AirWalk to see a variety of science displays and quiz the scientists on-site. The big screen at the Warra theatre provided insight into the research being undertaken across the Tahune bridge at the Warra Long Term Ecological Research site.

Our researchers maintain an awareness of national and international developments in their forest science speciality, perform their own research, and ensure that results are used to inform Forestry Tasmania's forest management and operations, as well as being involved in publicising their work.

The strength of our research team draws on its close links with both policy setting and practical forest management in a commercial environment.

Amount spent annually on research as a percentage of Forestry Tasmania's operating cost



Organisational capacity

Forestry Tasmania's key strategic human resources issues are the maintenance of the right level of skills and experience in the face of budgetary constraints and the implementation of innovative knowledge retention strategies.

Forestry Tasmania employees' conditions of employment are covered by an enterprise agreement. The current agreement, Forestry Tasmania Enterprise Agreement Number 2 of 2011, had a completion date of 31 March 2012. The agreement may continue to operate beyond this date until such time the relevant unions who are parties to the agreement and Forestry Tasmania negotiate a new agreement.

sustaining SCIENCE-BASED STEWARDSHIP

Gumatj glee at graduation

Six members of the Northern Territory Gumatj clan were officially presented with Certificate I in Forest and Forest Products by Forestry Tasmania Managing Director Bob Gordon at a moving ceremony at the annual Yothu Yindi Foundation Garma Festival in August 2011.

They gained their certificate skills working on a project initiated by Gumatj leader Galarrwuy Yunnipingu, who approached us to establish sustainable timber and construction industry at Nhulunbuy in East Arnhem Land. For Galarrwuy it didn't make sense to build houses using bricks transported from thousands of kilometres away, when the trees are right on their doorstep.

As part of the project, trees on Gumatj land have been harvested and milled to build a five bedroom bunk house and four bedroom house designed for Northern Territory conditions.

Training for the certificates was delivered by the Forestry Tasmania Registered Training Organisation.

Forestry Tasmania's Graham Sargison took on the role of project manager, with colleagues Bob Cripps, Lindsay Wilson and Frank Bishop travelling to Nhulunbuy to train participants and develop the competencies required to achieve certification. Sawmill manager Mark Blackwell mentored participants and supervised timber harvesting and sawmilling operations.

The certificate qualifications include core forest industry competencies such as chainsaw use and maintenance, trimming and crosscutting of felled trees, quality and product care, environmental care procedures, occupational health and safety and workplace communication and interaction. It is hoped the graduates will go on to make use of their new skills in similar projects across the Northern Territory.

The certificate recipients were Shaun Gurruwiwi, Billy Yunupingu, Gavin Yunupingu, Gerald Yunupingu, Jason Yunupingu and Shane Yunupingu. They added to the colour and movement at the Garma Festival when they celebrated their graduation by performing a dance that they had created especially for the occasion.



Members of the Gumatj clan celebrated their achievement of the Certificate I in Forest and Forest Products at this year's Yothu Yindi Garma Festival in Arnhem Land.

Training and development

Throughout the year the Training and Development team have been busy with a number of activities. Thirty-six staff were enrolled under the Forestry Tasmania Registered Training Organisation to commence a Certificate III in Forest Growing and Management (specialising in forest fire fighting), and two other staff are working to complete the Certificate IV in Forest Operations.

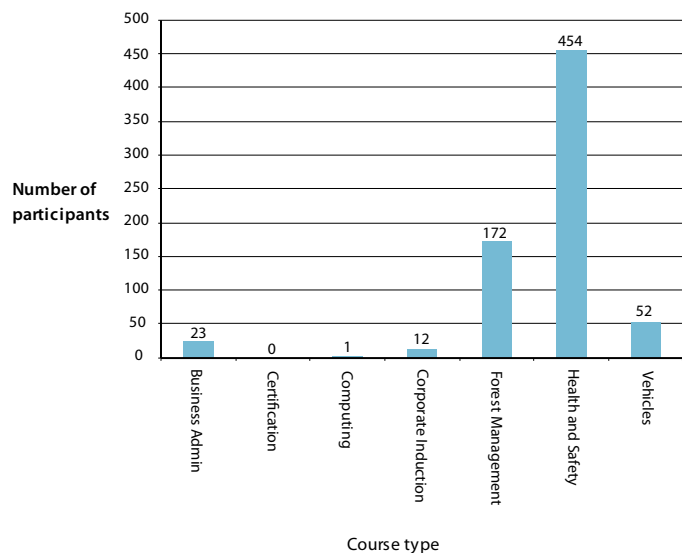
The Forestry Tasmania Registered Training Organisation also offered Recognition of Prior Learning to staff in the Certificate IV in Forest Operations, which has so far resulted in three people successfully completing this qualification.

With the implementation of the new Learning and Development module as part of the human resources system upgrade, staff have been busy ensuring the integrity of training and competency data and now have this module operational.

The Training and Development unit was also heavily involved, through a partnership with ForestWorks (Industry Skills Council), in undertaking research and reporting to the Forest Practices Authority on the effectiveness, and opportunities to improve, training in forest practices.

A large effort also went into meeting the compliance requirements of the Registered Training Organisation following an audit carried out by the Tasmanian Qualifications Authority under the Australian Quality Training Framework 2010.

Number of people who underwent training this year and the number of hours per subject area



Recognising long-serving employees

In December 2010, we recognised a number of long-serving employees who had reached 40-year, 35-year and 25-year milestones with Forestry Tasmania. Special events were held at the district centres, Forest Nursery and head office. These employees have served Forestry Tasmania for a combined total of 810 years, with Murchison staff contributing 220 years service, Mersey 60 years, Bass 85 years, Forest Nursery 60 years and Derwent and head office 385 years.

Resource information

Forestry Tasmania is two years into a three-year program of acquiring LiDAR data over 90 per cent of the productive forest estate, following completion of a successful pilot study in 2009.

In addition to the data for 450,000 hectares that were captured in the north-east during 2009/2010, data for another 350,000 hectares were captured over south-eastern Tasmania this year. Unfortunately, the flying season was affected by unsuitable weather and this was only one-third of the area for which we planned to capture data.

Despite the slower than expected data capture program, savings recorded so far are higher than those predicted from the 2009 trial, particularly in harvest planning and road location application. Additionally, LiDAR-derived information is being used in an ever-expanding array of activities, from archaeological surveys to the identification of forest suitable for thinning.

An active research program into the technology has been very fruitful. We have developed or refined models of site quality and completed timber volume surfaces for both plantations and regenerating native forest, which are being actively used. Also of note are some spectacular advances in the modelling of stand characteristics, which will enable accurate projection of timber volumes into the future. We can also accurately model stocking, basal area, height and volume in plantations directly from LiDAR data.

Business systems developments

We developed an incident resource management system, and deployed this to a multi-agency group, for the 2010/2011 fire season. This system allows us to track people and the use of vehicles and equipment during a wildfire or planned burn.

We made improvements to the forest operations database system to assist us in monitoring chemical usage, to facilitate the routine prescription and scheduling of operations, and to improve the monitoring of Forest Practices Plans and other works programs.

We also commenced the development of a thinning assessment tool, which will enable staff to enter measurements of recently thinned plantations while they are in the field. These data are required to monitor operational quality standards and to collate inventory data for timber yield planning.

Forest Technical Services

We continued to profitably expand our provision of external commercial services during 2010/11. Our Forest Technical Services business sells operational and specialised forestry services and advice to customers in Tasmania, interstate, and internationally.

A total of 26 projects were undertaken in the last 12 months, yielding total revenue of almost \$1.2 million. Work included the fabrication of helicopter-mounted fire-ignition equipment, strategic forest estate yield modelling, and tree-breeding and silvicultural research for eucalypt plantations being established in China. High-precision forest and terrain mapping using airborne LiDAR technology, and associated forest modelling services, were undertaken for forestry companies, councils, utility corporations, and land management agencies in Tasmania and Victoria.



where to FROM HERE?

Listed below are some of the challenges and priorities we will be striving to achieve in 2011/12 to ensure we continue to deliver the aims outlined in our Sustainability Charter.

Sustaining biodiversity and habitat

- Develop coupe-context metrics for habitat retention in consultation with Forest Practices Authority.
- Report on landscape scale metrics that inform how the Comprehensive, Adequate and Representative reserve system is functioning in the southern forests.
- Contribute to the development of the Department of Primary Industries, Parks, Water and Environment's swift parrot strategic species plan.
- Achieve the 80 per cent non-clearfell target for old growth harvesting.
- Implement outcomes of government land use agreements.

Sustaining jobs for current and future generations

- Provide input into the Treasury review of Forestry Tasmania's structure and implement government decisions.
- Implement the *Forestry Innovation Plan*.
- Deliver 2012 Regional Forest Agreement sustainable wood review.
- Progress and implement research into existing *E. nitens* plantation estate for suitability for replanting with *E. globulus* at the next rotation.
- Continue to expand the Trees on Farms project across the state.

Sustaining carbon stores, clean air, water and healthy forests

- Establish the carbon flux tower at the Warra Long Term Ecological Research site.
- Maintain our broad acre fuel hazard reduction program.
- Continue to support full implementation of the coordinated smoke management system.
- Develop the ability to model and manage estate-level water use changes.
- Develop our weed management strategy.

Sustaining safety, community access and heritage

- Implement a five-year strategic employee safety plan.
- Continue to support community activities through our Community Assist sponsorship program.
- Implement revised contract management procedures.

Sustaining science-based stewardship

- Continue to seek opportunities to underpin forest industry discussions with sound science on conservation and sustainability priorities.
- Further operationalise LiDAR technology to improve tactical planning and strategic inventory outcomes.
- Continue to seek international consultancies through Forest Technical Services.

David Fulford,
Senior Forest Officer – Planning, Murchison District.

GLOBAL REPORTING INITIATIVE CONTENT INDEX

GRI Ref.	Description	Core or additional	Location within this report
Strategy and analysis			
1.1	CEO statement.	Core	Messages from the Chairman and Managing Director
1.2	Description of key impacts, risks, and opportunities.	Core	Messages from the Chairman and Managing Director
Organisational profile			
2.1	Name of the organisation.	Core	Our organisation
2.2	Primary brands, products and services.	Core	Our organisation
2.3	Operational structure.	Core	Our organisation
2.4	Headquarters location.	Core	Our organisation
2.5	Countries of operation.	Core	Our organisation
2.6	Nature of ownership and legal form.	Core	Our organisation
2.7	Markets served.	Core	Our organisation
2.8	Scale of organisation.	Core	Our organisation
2.9	Significant changes during the reporting period regarding size, structure or ownership.	Core	Message from the Chairman and Managing Director
2.10	Awards received during the reporting period.	Core	Tourism and recreation
Report parameters			
Report profile			
3.1	Reporting period.	Core	Reporting structure and scope
3.2	Date of most recent previous report.	Core	Reporting structure and scope
3.3	Reporting cycle.	Core	Reporting structure and scope
3.4	Contacts.	Core	Contact us
Report scope and boundary			
3.5	Process for defining report content.	Core	Reporting structure and scope
3.6	Boundary of the report.	Core	Reporting structure and scope
3.7	Limitations of the scope or boundary of the report.	Core	Reporting structure and scope
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that could affect comparability.	Core	Reporting structure and scope
3.9	Data measurement techniques and assumptions.	Core	Reporting structure and scope
3.10	Explanation of the effect of any restatements of information provided in earlier reports.	Core	Reporting structure and scope
3.11	Significant changes from previous reporting periods in the scope, boundary or measurement methods applied in the report.	Core	Reporting structure and scope

GLOBAL REPORTING INITIATIVE CONTENT INDEX

GRI Ref.	Description	Core or additional	Location within this report
GRI content index			
3.12	GRI content index.	Core	GRI content index
Governance, commitments and engagements			
Governance			
4.1	Governance structure.	Core	Corporate governance
4.2	Indicate whether the chair of the highest governance body is also an executive officer.	Core	Corporate governance
4.3	State the number of members of the highest governance body that are independent and/or non-executive members.	Core	Corporate governance
4.4	Mechanism for shareholders and employees to provide recommendations or direction to the board.	Core	Corporate governance
Stakeholder engagement			
4.14	List of stakeholder groups engaged by the organisation.	Core	Community engagement
4.15	Basis for identification and selection of stakeholders with whom to engage.	Core	Community engagement
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	Core	Community engagement
4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organisation has responded to those key topics and concerns, including through its reporting.	Core	Understanding the areas we need to work on
Economic performance			
Economic performance			
EC1	Economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.	Core	The year at a glance Financial performance report
Market presence			
EC6	Policy, practices, and proportion of spending on locally based suppliers at significant locations of operation.	Core	Wood products
Indirect economic impacts			
EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind or pro-bono engagement.	Core	Community service activities

GRI Ref.	Description	Core or additional	Location within this report
Environmental			
Materials			
EN1	Materials used by weight or volume.	Core	Wood products
Energy			
EN3	Direct energy consumption by primary energy source.	Core	Developing an understanding of our energy use and emissions
EN4	Indirect energy consumption by primary energy source.	Core	Developing an understanding of our energy use and emissions
EN5	Energy saved due to conservation and efficiency improvements.	Additional	Developing an understanding of our energy use and emissions
EN6	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.	Additional	Developing an understanding of our energy use and emissions
Biodiversity			
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.	Core	Reserve system
EN14	Strategies, current actions and future plans for managing impacts on biodiversity.	Additional	Biodiversity
Emissions, effluent and waste			
EN16	Total direct and indirect greenhouse gas emissions by weight.	Core	Developing an understanding of our energy use and emissions
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.	Additional	Developing an understanding of our energy use and emissions
EN23	Total number and volume of significant spills.	Core	Fuel and chemical spills
Compliance			
EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations.	Core	Compliance with the Forest Practices Act
Transport			
EN29	Significant environmental impacts of transporting products and other goods and materials used for the organisation's operations, and transporting members of the workforce.	Additional	Developing an understanding of our energy use and emissions

GLOBAL REPORTING INITIATIVE CONTENT INDEX

GRI Ref.	Description	Core or additional	Location within this report
Social			
Employment			
LA1	Total workforce by employment type, employment contract and region.	Core	Wood products
Occupational health and safety			
LA6	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs.	Additional	Health and safety
LA7	Rates of injury, occupational diseases, lost days and absenteeism, and number of work-related fatalities by region.	Core	Health and safety
Training and education			
LA10	Average hours of training per year per employee.	Core	Organisational capacity
LA12	Percentage of employees receiving regular performance and career development reviews.	Additional	Organisational capacity
Society			
Community			
SO1	Nature, scope and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating and exiting.	Core	Community engagement

sustainable FOREST MANAGEMENT POLICY

Forestry Tasmania is a forest land manager responsible for the management of Tasmania's state forest resource.

Forestry Tasmania is committed to continual improvement and ensuring that this forest resource is managed for optimum community benefit, using environmental best practice to create long-term wealth and employment for Tasmanians.

Under this policy, Forestry Tasmania will:

- Conduct operations to meet or exceed all relevant Australian and Tasmanian environmental and forest management legislation, standards and codes.
- Actively engage with stakeholders and neighbours and encourage them to provide feedback on Forestry Tasmania's progress in sustainable forest management.
- Maintain a Sustainability Charter (Forest Management Plan) that outlines Forestry Tasmania's strategic aims and goals.
- Undertake and promote collaborative research that will ensure that operational practices are underpinned by sound science.

- Maximise product recovery, minimise waste and implement measures that strive to prevent pollution as a result of forest operations.
- Maintain a comprehensive forest management system that is externally certified against ISO14001 and the Australian Forestry Standard (AS4708).
- Regularly monitor, audit, review and publicly report on our forest performance.
- Clearly define and communicate environmental and forest management responsibilities to our employees and support them with training and appropriate resources to ensure those responsibilities are fulfilled.
- Encourage and facilitate compliance with environmental and sustainable forest management standards by suppliers, contractors, and the users of state forests.

Bob Gordon
Managing Director
June 2009

The tables in this section support the statements made in the main report and provide a more detailed view of long-term trends.

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Forestry Tasmania