



ANNUAL REPORT 2007 - 2008
FOREST & WOOD PRODUCTS AUSTRALIA
Level 4, 10-16 Queen Street, Melbourne VIC 3000
ABN 75 127 114 185

www.fwpa.com.au



ANNUAL REPORT
2007 - 2008



Australia's forest and wood products industry is based on renewable forest resources and has an extensive value chain that benefits all Australians. From the intrinsic environmental values of the forests themselves, through to the diversity of wood products and their applications, the industry sustains a wide array of goods, services and values enjoyed and appreciated by people everywhere.

Forest & Wood Products Australia Limited (FWPA) is an industry-owned, public company limited by guarantee. It has been established to improve the competitiveness and sustainability of the Australian forest and wood products industry.

FWPA's vision is to be the industry's leading source of knowledge, and the principal investor in innovation and promotion.

Our mission is to provide services to the industry, and to increase its sustainability and international competitiveness. These services include direct and collaborative investment in:

- Research and development to provide innovative solutions for the industry; and
- Promotion of the industry's products, services and values.

ABOUT OUR INDUSTRY	
Area of natural forests	149 million hectares
Area of multiple-use native forests (INCLUDES USE FOR WOOD PRODUCTION)	9.4 million hectares
Area of plantation forests	1.82 million hectares
Annual volume of wood harvested ¹	27 million cubic metres
Estimated carbon stocks in forests ²	10.5 billion tonnes
Estimated net annual carbon sequestration (MEASURED IN 2004) ²	43.7 million tonnes CO ₂ -e
Direct employment	83,400 people
Annual industry turnover	\$19 billion
Contribution to national GDP ¹	\$13 billion
Proportion of national GDP	0.7 per cent
Proportion of manufacturing industry trade	5.3 per cent
Value of exports	\$2.4 billion
Value of imports	\$4.3 billion
Participants	Forest growers and managers (BOTH PRIVATE AND GOVERNMENT-OWNED); hardwood and softwood sawmillers; panel, plywood and veneer manufacturers; woodchip exporters and timber importers

Source: Figures quoted are from Australia's State of the Forests Report 2008, unless otherwise indicated.
¹ Forest and Wood Products Australia 2008–2013 Strategic Plan, FWPA 2008
² Forests, Wood and Australia's Carbon Balance, FWPRDC and Cooperative Research Centre for Greenhouse Accounting 2006

About this report: As this is the first year of FWPA's operations, no comparative data is available from previous years. The financial year referred to in this report is from 3 September 2007 to 30 June 2008.

OUR FIVE-YEAR STRATEGIC PLAN – ATTAINING OUR VISION

FWPA is a not-for-profit, industry-owned company that invests levy-payer and Australian Government funds to advance the prospects of Australia's forest and wood products industry.

Industry stakeholders have led the transition of its predecessor organisation, the Forest and Wood Products Research and Development Corporation (FWPRDC), into the new corporate entity, expanding the company's mandate beyond research and development.

Consolidating our strategic planning has been a priority for FWPA, and a summary of the 2008-2013 strategic plan is provided below. Stakeholders have been extensively involved in the process to ensure the company's direction and structure accurately reflects the needs of industry and responds to industry drivers.

The change to a corporate structure allows FWPA to undertake important promotion and marketing functions (Strategy 1), building on the traditional functions of research and development (Strategy 2), and skills and capacity expansion (Strategy 3). Another new direction for the company is the development of industry support services (Strategy 4), an area which is still being explored.

All forest growers and managers (both private and government-owned), hardwood and softwood sawmillers, panel, plywood and veneer manufacturers, woodchip exporters and timber importers fund FWPA through the payment of domestic log levies or timber import charges. The Australian Government matches industry funding for research and development and is a major stakeholder.

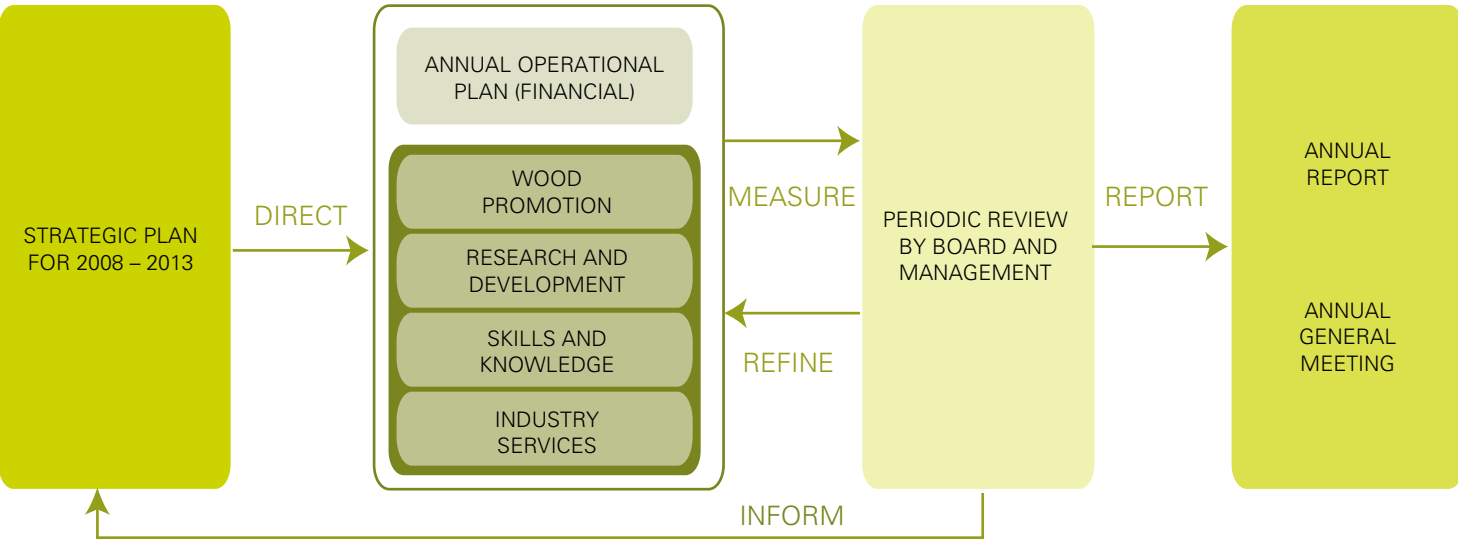
FWPA serves the wider community, including government, as an independent, credible and professional source of information on the sustainable operation and growth of Australia's forest and wood products industry.

The 2008-2013 strategic plan complies with the five-year Statutory Funding Agreement between FWPA and the Australian Government and is supported by an annual operating plan.

The structure of FWPA's first annual report reflects the structure of the new strategic plan, which was finalised before the end of the financial year. However, operations may actually have been conducted under the previous FWPRDC program streams in this transitional year, and are reported under the FWPRDC cost codes in the financial report.

HOW THE STRATEGIC PLAN WORKS

The strategic plan sets out why FWPA exists, what it aims to achieve, and how it will operate. It is cast at a strategic, five-year level, and directs the annual planning, report and review process.



Drivers	Strategies	Priority themes	Benefits	Attaining the vision
Community acceptance	Strategy 1 Promote the benefits and use of forest and wood products, in accord with changing community attitudes, environmental awareness, and market trends.	<ul style="list-style-type: none">• Promote benefits of forest and wood products, especially environmental – including low embodied energy, carbon storage, renewability, reusability/recyclability and evidence of sustainability• Promote forest and wood products/applications over alternatives, and new applications and services to meet emerging markets• Engage with the community to comprehend and seek to meet its needs• Engage with regulators, standards bodies, opinion leaders and specifiers to maximise wood products’ specification and use	<ul style="list-style-type: none">• Improved market awareness of, and satisfaction with, forest and wood products• Increased consumption of the products and services from forests	To be the industry’s leading source of knowledge, and the engine for innovation and promotion
Product usage	Strategy 2 Invest in and co-ordinate R&D to improve the industry’s competitiveness, inform its climate change response, enhance investment, increase usage, and ensure the sustainability of forests, wood products and services.	<ul style="list-style-type: none">• Evaluate market trends nationally and internationally to enable industry to develop business and growth strategies• Maintain and expand markets for new and existing wood products and services required to meet these markets• Develop knowledge and technology to improve existing production and utilisation processes• Characterise the properties and variability of wood resources and maximise value recovery• Enable genetic improvement and the management of biotic or abiotic risk factors• Develop systems and technologies to optimise water productivity and efficiency• Evaluate strategies for forest management under climate change and maximise greenhouse advantages of forest products	<ul style="list-style-type: none">• Improved and new products, matched to market needs• Increased industry profitability and efficient use of inputs throughout the industry’s value chain• Improved industry investment confidence• Enhanced sustainability as measured in economic, social and environmental terms	
Climate change				
Competitiveness				
Sustainability				
Investment	Strategy 3 Expand the industry’s capacity and capability – including knowledge generation and adoption, and promotion – to facilitate growth.	<ul style="list-style-type: none">• Disseminate R&D outputs and maximise and accelerate knowledge adoption and technology uptake• Assist industry to access knowledge and technologies elsewhere• Enable industry’s continuous improvement and adoption of best practices• Selectively develop education initiatives to lift people’s interest in, and skills for, the industry, its networks and research providers	<ul style="list-style-type: none">• Increased adoption of FWPA products and services• Increased availability of skilled personnel• Improved industry image• Increased focus on continuous improvement	
Industry capability	Strategy 4 Increase FWPA’s capacity and scope to provide services for the industry’s benefit.	<ul style="list-style-type: none">• Increase the industry’s contribution to FWPA’s priority themes• Grow FWPA’s role in industry services provision through the creation of new revenue streams• Improve the value of FWPA’s outputs, increasing stakeholder’s use of its services	<ul style="list-style-type: none">• Increased industry understanding of, and support for, FWPA• Increased FWPA investment in services and increased cost-efficiency• Reduced cost of service delivery	



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THE YEAR'S HIGHLIGHTS

New company

Forest & Wood Products Australia (FWPA) was formally established on 3 September 2007 as an industry-owned, unlisted public company limited by guarantee under the *Corporations Act 2001*. Its formation followed more than two years of consultation with stakeholders, which identified expectations and requirements of an industry services body. FWPA replaces the Forest and Wood Products Research and Development Corporation (FWPRDC), a Commonwealth statutory authority, which had been Australia's lead national agency for investment in forest and wood products industry research and development since 1994.

Member enrolment

The process of enrolling our financial contributors (those paying domestic processor levies, grower levies and wood import charges) as Voting Members of the company is underway. There is no cost to levy payers for membership and members will be able to elect the Board of Directors to oversee the governance of the company.

Plan to guide our future

With further industry consultation this year, the company has developed a strategic plan to guide the operation of FWPA over the next five years. Implementation of the plan began 1 July 2008.

Operating surplus

In its first 10 months of operation FWPA's income has totalled more than \$8.3 million, the majority from industry levies and charges and Australian Government matching contributions. Of this, \$7.3 million has been invested in a range of research and promotional projects.

The surplus will be available for investment in R&D projects or industry promotion or services in future years under the company's new strategic plan.

New location

During the year FWPA moved to a new location from offices at the World Trade Centre to Queen Street, in Melbourne.

Market intelligence

In 2007-2008 FWPA research and development investments have generated several reports that provide significant market analysis. These include the drivers behind the material selection decisions of Australia's largest home builders, an evaluation of opportunities for wood products outside the traditional residential construction sector, and analysis of the potential impacts of emissions trading in Australia.



Timber Service-Life Design Guide

Ten years of research led by CSIRO culminated with the launch of the *Timber Service-Life Design Guide* in March 2008. Technical manuals and computer software have been developed to allow timber specifiers, designers, architects and builders to simply and effectively select the right timber species, fittings, fixtures and treatments for any given use of timber in construction.



Life Cycle Inventory

A major two-year project has been completed by CSIRO, Ensis and RMIT to provide industry, and ultimately consumers, with a credible quantitative basis for comparing the environmental impact of timber products and competing non-timber alternatives. The Life Cycle Inventory (LCI) evaluates the environmental burdens associated with a product or process over its 'cradle-to-gate' life cycle by identifying energy consumption, materials usage and wastes released to the environment. The LCI database provides the baseline information, in the Australian context, to allow scientifically-based comparisons of different timber construction techniques compared with other materials and/or technologies.

Wood Naturally Better

Work is underway to develop a promotional campaign for wood. Market research completed early in 2008 helped to identify the campaign key messages. It will promote the carbon storage benefits of wood products, addressing consumer climate change concerns, with the positioning statement of *Wood Naturally Better*.



Skills for the future

In 2008 the National Forestry Masters Program was launched; a collaboration between the five universities which previously offered undergraduate forestry degrees. The objective of the program is to address a decrease in student numbers and the need for ongoing professional development for the sector's sustainability.



PHOTO: HOLMESGLEN TAPE

During the year, FWPA also funded nine PhD students, one Masters student and one Cullity Fellowship.

CHAIRMAN'S REPORT



The past year marks the beginning of a new chapter for the forest and wood products industry in Australia, with the successful creation of the industry-owned services agency Forest & Wood Products Australia Limited (FWPA).

I would like to emphasise our expanded role. FWPA is an industry services body in addition to fulfilling a research and development role. It is a significant evolution of the organisation from its origins as the Forest and Wood Products Research and Development Corporation (FWPRDC), a Commonwealth statutory authority focused on research and development.

FWPA's transition was motivated by industry's desire to intensify the promotion of forest and wood products in an increasingly competitive marketplace, and to more effectively market its environmental credentials. Developing an industry promotion campaign for timber and wood products has therefore been high on the agenda.

During February and March 2008 we held seven meetings with stakeholders and received a number of written submissions to help finalise our new five-year strategic plan and refine our four key strategies. Supporting and co-ordinating research and development for the benefit of the industry remains a fundamental industry service.

Our other key strategies are to promote the benefits and use of forest and wood products, to expand the industry's capacity and capability and to increase the scope of the services FWPA provides to industry. An overview of the strategic plan is provided at the beginning of this report and implementation began on 1 July 2008.

The involvement and support of stakeholders has been essential in the new company's formation. The continued participation of industry and other stakeholders will be essential to its ongoing success. I would like to welcome forest growers as new stakeholders of FWPA, enabling the company to engage with and offer services to an increased forest products value chain. All industry members who pay a levy or import timber charge are eligible to apply for free membership of FWPA. We have revised the structure of the industry advisory committees that provide feedback to the Board of Directors, to better reflect the wood value chain. The focus on the value chain also reflects our stronger commercial focus and emphasis on outcomes and services for industry.

My sincere thanks go to fellow Board members and to staff, who have made possible the transition to our new corporate structure. I would like to acknowledge the contribution of director David Hunter, who stepped down from the Board in May to take up an international position. Much of the initial effort in establishing the new company has concentrated on putting the right structures and procedures in place to ensure our legal compliance as a limited liability company.

In particular I thank Dr Glen Kile, who was appointed as our first managing director from his position as executive director of FWPRDC for the previous five years. Dr Kile managed the transition process and led business operations, before retiring at the beginning of June 2008.

I welcome Alaric (Ric) Sinclair as his replacement in the managing director's role. Mr Sinclair brings a wealth of industry, business and marketing experience to the position, which will be of great value in developing FWPA's new direction.

I would like to acknowledge and thank Glen, Ric and FWPA staff for their commitment and contribution to FWPA over the past year and the assistance and support that they have offered the Board during the transition.

I encourage you to become actively involved, to have a say in the development of research priorities, promotion and the new industry services. We are committed to organisational transparency and to working with our members, other levy payers and stakeholders to develop effective industry support services.

A handwritten signature in blue ink that reads "Ron Adams". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Ron Adams
Chairman

MANAGING DIRECTOR'S REPORT

Despite the relative infancy of Forest & Wood Products Australia, the organisation I have been entrusted with by my predecessor Dr Glen Kile has been established with strong foundations. Building on these foundations, FWPA's new mandate as a service company for industry provides opportunities to expand the role of the company and the services we provide.

The marketing company Sherbon and Osborn was engaged late in 2007 to begin work on the wood promotion campaign. Market research has been completed to identify target audiences and messages and the creative elements of the campaign have all been developed. Promotional materials are now being finalised and the campaign will be launched later this year.

The co-ordination of research projects initiated under the FWPRDC has progressed seamlessly in the change-over to FWPA and the company ends the financial year in a strong financial position with an income of \$8.3 million largely from producer and grower log levies, import charges and Australian Government contributions. Expenditure of \$7.3 million between September 2007 and June 2008 is lower than income, and leaves us in a strong cash position with \$11.1 million on hand to kick-start investment in the coming year.

Several major projects were finalised during the year including the *Timber Service-Life Design Guide*, which involved more than 10 years of work by CSIRO and was formally launched in March 2008. This project highlights the long-term and broad industry focus of much of our research investment, which, nevertheless, provides greater confidence in the use of timber and wood products.

Two years of work on the *Life Cycle Inventory for Timber and Wood Products* has also been completed by CSIRO, and will be launched in the new financial year. It scientifically establishes the environmental impacts of forests, wood and wood products to international standards. This inventory will be an extremely valuable tool, providing authoritative information establishing wood's environmental credentials against competing products. FWPA is well placed to help the industry identify and take advantage of opportunities that arise in a carbon-constrained marketplace.

Other projects completed have provided market intelligence on the selection of construction materials and opportunities for the construction industry, building on reports from previous years.

We have continued to fund the development of education resource materials for the TAFE and university sector, which is essential in providing skilled employees – an issue of significant concern for the industry. Our investment in career development has also included the funding of 10 postgraduates and one Cullity Fellowship.

During the year there were changes to two of our major research collaborators. Ensis, the forest and forest industry joint venture between CSIRO and the New Zealand Government's research agency Scion, came to an end in December 2007. This was followed in June 2008 by the closure of the CSIRO Forest Biosciences division. While disappointing, this creates opportunities to establish partnerships with new players. We have already committed \$1.25 million to a new five-year \$10 million consortium, the Structural Timber Innovation Company, to research new timber construction products and systems for wide-span commercial and residential buildings. This is based at the University of Canterbury, in Christchurch, New Zealand and research commenced on 1 July 2008.

The practicalities of establishing a new company have included creating a new corporate logo and brand. The company has moved to new offices, from the World Trade Centre to Queen Street, in Melbourne, which will provide us with facilities to offer a broader range of services to industry. I thank the staff for the welcome they have offered me, in taking on the managing director's role, and for their hard work and commitment in ensuring a smooth transition to the new corporate structure. I also thank the Chairman and Board of Directors for their support and trust, and the opportunity to contribute to FWPA and the industry's future.

Alaric Sinclair
Managing Director



THE BOARD OF DIRECTORS

The Board

The Constitution of Forest & Wood Products Australia allows between five and nine directors, including one executive director and the managing director, who is appointed by the Board. At least two of the Board's non-executive directors must also be independent directors (not holding positions within any FWPA member companies).

During the reporting period the Board comprised eight directors, including the managing director. Six directors were previously members of the FWPRDC Board and were appointed to FWPA's inaugural Board. The Board appointed one director on a temporary basis until FWPA's first Annual General Meeting. Future Board vacancies will be filled through the election of directors by members of the company. Three vacancies will have occurred at the time of the company's first Annual General Meeting on 8 October 2008, when members will elect new directors for terms of three years.

All directors have held their positions since 3 September 2007 until the end of the financial year, unless otherwise specified.

CHAIRMAN AND NON-EXECUTIVE DIRECTOR

Mr Ron Adams

Managing director of Wespine Industries Pty Ltd, Mr Adams is also a member of CSIRO Manufacturing Sector Advisory Committee, councillor of Forest Industries Federation of WA, member of WA Minister for Forestry's Timber Plantation Advisory Group and trustee of J. W. Gottstein Memorial Trust. He was formerly a director of National Association of Forest Industries (NAFI) and Australian

Plantation Products and Paper Industry Council (A3P).

He holds an associateship in Mechanical Engineering, is a graduate of the Harvard Business School International Advanced Management Programme and a Fellow of the Australian Institute of Company Directors.

Board responsibilities: Member of the Audit and Finance Committee, Promotion, Services and Communication Committee and Chair of Market Knowledge and Development Advisory Group.

DEPUTY CHAIRMAN AND NON-EXECUTIVE DIRECTOR

Mr Peter Zed

Mr Zed is chief executive of Allied Timber Products Pty Ltd. He is also a member of CSIRO's Agribusiness and Forestry and Forest Products Sector Advisory Committees, member of the NSW Ministerial Advisory Council on Primary Industry Sciences, trustee of the J.W. Gottstein Memorial Trust and a former director of NAFI, Plantation Timber Association of Australia, Timber Research and Development Advisory Council, Timber Queensland and Queensland Timber Board. He holds an Honours degree in Forestry.

Board responsibilities: Chair of the Research and Development Investment Committee and Chair of the Solid Wood Processing Advisory Group, Chair of the former Softwood Advisory Group (incorporated into the Solid Wood Processing Advisory Group in April 2008).

NON-EXECUTIVE DIRECTOR (INDEPENDENT)

Ms Kathryn Adams

Ms Adams is a lawyer and agricultural microbiologist and a senior research fellow

From left to right,
Mr Ron Adams,
Mr Peter Zed,
Ms Kathryn Adams,
Mr Ken Last,
Dr Sadanandan
Nambiar,
Mr Nick Roberts and
Mr Ric Sinclair.



with the Australian Centre for Intellectual Property in Agriculture. She is a non-executive director of Cotton CRC, Future Farming Industries CRC and Safe Food Production Queensland. Formerly she was executive director of the Queensland Environmental Protection Agency and FWPRDC, director of Queensland Horticulture Institute, non-executive director of Horticulture Research and Development Corporation, Grains RDC and Cotton RDC. She holds a Masters in Law, Environmental Studies and Business and is a Fellow of the Australian Institute of Company Directors.

Board responsibilities: Chair of the Promotion, Services and Communication Committee, Chair of the Engineered Wood Products Advisory Group.

NON-EXECUTIVE DIRECTOR

Mr Ken Last

Mr Last is a director of Tilling Timber Pty Ltd. He was formerly a Board member of Forest Industries Association of Tasmania, Victorian Association of Forest Industries, and NAFI. He holds a Diploma in Accountancy.

Board responsibilities: Chair of the Audit and Finance Committee, member of the Research and Development Investment Committee, Chair of the former Hardwood Advisory Group (incorporated into the Solid Wood Processing Advisory Group in April 2008).

NON-EXECUTIVE DIRECTOR (INDEPENDENT)

Dr Sadanandan Nambiar

Dr Nambiar is an honorary fellow at CSIRO. He was formerly chief research scientist and Director of Science at CSIRO Forestry and

Forest Products and subsequently Ensis. He is also a senior associate in the Centre for International Forestry Research. Dr Nambiar holds a Doctorate in Agricultural Science.

Board responsibilities: Member of the Research and Development Investment Committee, Chair of the Sustainability and Resources Advisory Group.

NON-EXECUTIVE DIRECTOR

Mr Nick Roberts

Mr Roberts is chief executive officer of Forests NSW. Previously he was managing director of Weyerhaeuser Australia, president of the New Zealand Forest Owners' Association, director of Forest Research, and inaugural Chair of A3P. He holds a Master of Science in Wood Science. He was appointed to the FWPA Board on 1 October 2007 on a temporary basis.

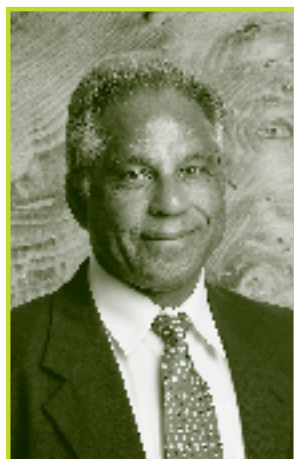
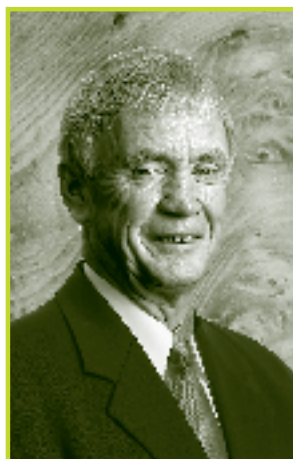
Board responsibilities: Member of Promotion, Services and Communication Committee.

MANAGING DIRECTOR

Mr Ric Sinclair

Mr Sinclair was Manager, Water Harvesting, Origin Energy, and has held marketing and strategic planning roles at KH Foods, Chiquita Brands and Amcor/PaperlinX Ltd. He has been an economic and policy analyst for NAFI. He holds a Bachelor of Science, Forestry and Masters of Business Administration. Mr Sinclair was appointed to the role of managing director on 2 June 2008.

Board responsibilities: Ex officio member of all Board Committees and Advisory Groups.



THE BOARD OF DIRECTORS



Directors who resigned prior to the end of the financial year included:

NON-EXECUTIVE DIRECTOR (INDEPENDENT)
Mr David Hunter

Mr Hunter was a former senior partner in the Office of the CEO at Accenture, a global consulting firm. He is also a director of several private and government organisations. Mr Hunter resigned from the Board, effective 30 May 2008.

Board responsibilities: Member of the Audit and Finance Committee.



MANAGING DIRECTOR

Dr Glen Kile

Dr Kile is a former member and Chairman of the Standing Committee on Forestry, former Board member of several Cooperative Research Centres, former chief research scientist at CSIRO Forestry and Forest Products and trustee of the J.W. Gottstein Memorial Trust. Dr Kile resigned from his position effective 30 May 2008.

Board responsibilities: Ex officio member of all Board Committees and Advisory Groups.

Former director
 Mr David Hunter (top)
 and former managing
 director Dr Glen Kile

OUR STAFF

From left to right,
 Dr Chris Lafferty,
 Mr Jason See,
 Mr Rob Lockwood and
 Dr Jugo Illic



From left to right,
 Ms Kelly Goh,
 Ms Lorraine Reyes
 and Ms Laura Van
 Winden

FWPA has seven full-time staff, including the managing director, and one part-time staff member.

- Mr Ric Sinclair
Managing director
- Dr Chris Lafferty
Research and development manager
- Mr Jason See
Business manager
- Mr Rob Lockwood
Company secretary

- Dr Jugo Illic
Research and development projects officer
- Ms Kelly Goh
Finance officer
- Ms Lorraine Reyes
Program administrator
- Ms Laura Van Winden
Administrative officer

OUR ORGANISATION

Corporate governance statement

FWPA's formation, activities, reporting and operational protocols are governed by the *Corporations Act 2001*, the FWPA Constitution, the Statutory Funding Agreement and the associated legislation that enables FWPA to operate as the industry services body for the Australian forests and wood products industry. These provide FWPA with its over-arching corporate governance requirements.

FWPA's governance systems are designed to ensure the disciplined, transparent and efficient operation of FWPA and the management of its finances. They seek to instill a culture and operating environment through which the industry and the community will receive the optimum return on the funds invested under FWPA direction.

FWPA will be proactive in identifying the priorities of all stakeholders; particularly industry and government.

In fulfilling its governance role, the Board takes advice from a range of qualified sources, including Industry Advisory Groups.

The Board's governance responsibilities include:

- establishing FWPA's vision, goals and strategic direction;
- formulating and promulgating policies for FWPA's efficient operation;
- commissioning the preparation of, and approving, a five-year strategic plan, Annual Operational Plans and Annual Reports;
- ensuring the appropriate allocation of resources to Priority Themes;
- implementing business risk, fraud management and intellectual property policies and frameworks;
- overseeing audit procedures (internal and external); and
- monitoring, assessing and reporting on FWPA's performance, including that of its staff and the Board.

Although independent of the Commonwealth Government, FWPA recognises the crucial role of government in providing public resources, advice on priorities, access to service providers, and the benefits of a wider community view to guide FWPA's operation.

In addition FWPA has a Statutory Funding Agreement with the Australian Government to match levy funds paid to FWPA for expenditure on R&D.

FWPA STRATEGY



FWPA OPERATIONS



REVIEW OF OPERATIONS

During the first 10 months of operation the company reviewed its operating structure, taking the new promotional and business development priorities into account. In line with industry feedback, four strategies were established to set the future focus.

The drivers behind the investment priorities

The strategic plan highlights the following drivers for development of FWPA's operational programs.

Community acceptance

Australia's changing demographics are creating a knowledge gap between the forestry industry and other sections of the community, particularly city-based populations. Commercial forestry will continue to require access to forested and non-forested land to meet demands for products. Understanding community attitudes, balancing competing demands and generating acceptance of forestry's place in the Australian landscape (plantation-based or natural) will continue to require the industry's engagement.

Product use

To be successful, the Australian forest and wood products industry will need to understand and stay abreast of trends that determine market preference for materials and their application. FWPA will assist the industry with assessment, analysis and dissemination of market and product information matched by effective dialogue with regulators, standards bodies, specifiers, designers, and product innovators.

Climate change

Climate change will create challenges and opportunities for Australia's forest and wood products industry. It resonates already along the entire product chain, from genetics and ecology to product use and end-of-life recycling. Every facet of forestry, transport, manufacturing, marketing and end-use application will be affected by climate change and related mitigating policies and regulations. It encompasses issues such as water use, carbon sequestration, energy and fuel sources, bushfires and biosecurity.

Competitiveness

There is growing competition for raw materials and inputs such as water, land

and energy. There is also a shift to new and alternative products and services. Within this commercial environment, Australia's forest and wood products industry must continue to deliver value for money for its customers, including new or unique products and services, while maintaining an internationally competitive cost structure.

Sustainability

Consumers are increasingly demanding that their goods and services come from demonstrably sustainable sources. Within this context, the industry must be able to balance its inputs and product supply to meet customer expectations. FWPA will help the industry develop and demonstrate its sustainable management of ecological assets and processes, including water, chemicals and energy management, and the protection of forests from fire and other hazards. FWPA will also help develop a clearer understanding among consumers of wood properties and their suitability for different uses.

Investment

Private and institutional financing models are creating new structures and opportunities for investment in industry, natural resources and infrastructure. In the forest and wood products industry, traditional modes of funding, including a significant government role, will not deliver all the investment needed by Australia's industry for its resource development, manufacturing and infrastructure. By attracting and harnessing new sources and methods of funding, the industry can competitively supply for its products' markets.

Industry capability

For an industry to be successful, it must overcome any capability constraints that arise from factors, such as a mobile workforce, competition for high-quality personnel, and the changing expectations of a modern workplace. The forest and wood products industry requires a culture of innovation, including knowledge generation and adoption, skills development, continuous improvement,

and international best practice. FWPA is responsible for facilitating, communicating and supporting the development of this culture. Appropriate investment will need to be committed by the whole industry to achieve this.

Four strategies

1. Industry promotion

A key impetus for the formation of FWPA was to satisfy the industry need for a strategic precompetitive marketing and promotions campaign to communicate the benefits and use of forest and wood products in accord with changing community attitudes, environmental awareness and market trends. A summary of the marketing initiatives developed to-date is on pages 14-15.

2. Research and development

R&D was the core focus of the predecessor organisation, FWPRDC, and it remains central to FWPA activities. The company will invest in and co-ordinate R&D to improve the industry's competitiveness, shape its climate change response, enhance investment, increase product usage and ensure the sustainability of forests, wood products and services.

As part of the review of the operating structure, the R&D activities are now organised into three research themes. The current period of transition sees FWPA move the projects initiated under FWPRDC to the new program themes, as outlined in the table below. For the purposes of the operations review, we have listed the projects under the three FWPA themes, however all financials for this inaugural year have been reported using the five FWPRDC classifications. Our research and development projects are reported on pages 16-25.

FWPA research themes	FWPRDC research themes
Market Access and Development	Market Knowledge and Development
Products and Processing	Manufacturing and Products
Sustainability and Resources	Resource Characterisation and Improvement
	Sustainable Forest Management

3. Skills and knowledge

Key to the future success of any industry is a strong skills base and the ability to retain these skills and develop and enhance them over time. FWPA will focus on growing the industry's capacity and capability in knowledge generation and adoption to facilitate its expansion. A summary of relevant activities is provided on pages 26-29.

4. Industry services

The capacity to develop a range of industry services is one of the benefits FWPA gains in operating as a company. Given this area of the business is still to be developed, there is no report on service operations – although a number of service proposals that have the potential to generate additional income streams and benefits to FWPA members are being investigated.

Consulting with our stakeholders

FWPA is committed to ensuring its investments meet prevailing industry needs and relevant Australian Government National Research Priorities and Rural Research Priorities. Under the funding agreement with the Australian Government about two-thirds of the company's total budget will continue to be committed to R&D.

Consultation with stakeholders has been crucial in the development of FWPA as an industry-owned company. This consultation is ongoing, with industry advisory groups providing feedback to the company's Board of Directors about industry research and service needs, the implementation of research findings and other initiatives.

The industry advisory groups reflect the forest and wood products value chain plus the broader group of levy payers the company represents under its new structure.

The FWPA Board appoints advisory group members for three-year terms. Selection is based on a skills criteria and membership is rotated to ensure a diversity of views. The advisory groups meet up to four times a year, as required, and each group is chaired by an FWPA director. All four of the new groups held their first meetings in May 2008.

Sustainability and Resources

Advisory Group

Considers management of native and plantation forests, and covers topics that include tree breeding, silviculture, wood properties, water use, forest operations, pest management and climate change. Members are Sadanandan Nambiar (Chair), Lyndall Bull (resigned), Tony Cannon, Ross Dickson, Stephen Elms, Jim O'Hehir, John Hickey, Ian Last, Andrew Moore, Ian Ravenwood, Richard Stanton, and Mike Connell (secretariat).

Solid Wood Processing Advisory Group

Includes both softwood and hardwood processing, and segregation technologies for logs and boards, drying, appearance grade value-adding, grading and quality assurance as well as optimising water use and energy efficiency in processing operations. Members are Peter Zed (Chair), Max Evans, Bruce Greaves, Kim Harris, Vince Hurley, Trevor Innes, Ken Last, Nick Livanes, Andy McNaught, Peter Robson, Richard Schaffner, Damien Simpson, Geoff Stringer, and Steve Webster (secretariat).

Engineered Wood Products

Advisory Group

Provides advice on research in what is a comparatively small, but important industry sector encompassing plywood, wood panels, laminated veneer lumber and glue laminated products. Members are Kathryn Adams (Chair), Simon Dorries, Alan Halligan, Craig Kay, Peter Law, Ian McDonald, John Muller, Peter Robinson and Wolfgang Stahl.

Market Knowledge and Development

Advisory Group

Advises on research that provides market analysis and industry information tools, such as the recently released *Timber Service-Life Design Guide*. The scope includes research into consumer attitudes, energy efficiency, building codes and systems, and the value of wood products in reducing the environmental impacts of construction. Members are Ron Adams (Chair), Robert Cairns, Matthew Crapp, Andrew Dunn, Neil Evans, Ian Ferguson, Blair Freeman, Gerry Gardiner, Peter Juniper, Gary Kiddle, Rod McInnes, David Marlay, John Simon, Alastair Woodard and Barry La Fontaine (secretariat).

Research providers and partners

The company advertised five research opportunities encompassing six priority projects during the year. A small number of additional projects were put out to selective tender while others were commissioned directly with research providers based on input from industry advisory groups.

FWPA contracts its R&D projects with a broad range of research providers including for-profit and not-for-profit companies, State and Commonwealth agencies, CSIRO, universities, cooperative research centres (CRCs) and individual consultants. The selection of research providers is based on: reputation and standing within the industry, prior performance, extent of demonstrable industry collaboration and linkages, value for money, and proposed delivery time frames and budgets.

Longer-term funding partnerships allow FWPA to leverage its investment and to expand industry access to R&D efforts and results, especially in specific priority themes.

Major collaborations established during the past year, or continuing from prior arrangements under the FWPRDC include:

- **Joint Venture Agroforestry Program (JVAP)**

JVAP is a partnership with the Rural Industries Research and Development Corporation (RIRDC), Land & Water Australia (LWA), and FWPA. JVAP's objective is to build the knowledge to underpin profitable, sustainable and resilient agroforestry within Australian farming systems and landscapes.

- **Wood Quality Initiative (WQI)**

WQI is a Foundation for Research Science and Technology of New Zealand (FRST) research consortia. FWPA is supporting WQI in its endeavours to create valuable intellectual property that can be used for both resource segregation, and for greatly enhancing the value of the next *pinus radiata* crop.

- **The Structural Timber Innovation Company (STIC)**

STIC is a new FRST consortia. The company was established to develop new market opportunities for engineered wood products by developing design options that incorporate laminated veneer lumber and structural plywood into portal beam systems covering large span structures. FWPA has committed \$1.25 million to the consortia over a five-year

period and it will provide substantial research training to develop timber engineers with the skills and experience to create timber-based design solutions for the light commercial and high-rise residential construction markets.

• Further activities

FWPA also participates in the Council of Chairs of Rural Research & Development Corporations, which is the peak collaborative body for the Research & Development Corporations (RDCs) and Industry Services Bodies. Joint initiatives include communication in relation to the collective outputs of RDCs and industry services bodies, and quantitative evaluation of research projects.

Commercialisation and intellectual property

FWPA operates in accordance with its published *Intellectual Property Management*

Plan adopted by the Board in February 2008 and available from the company web page. The key element of the Management Plan is that intellectual property derived from FWPA-sponsored projects is owned by the research provider. However, FWPA retains the right to a share of royalties in proportion to its investments in the project. Any royalty income is reinvested in future R&D programs.

The majority of FWPA investments are directed towards pre-competitive R&D outputs for the benefit of company members and levy payers. As such, direct commercialisation of project outputs is an irregular outcome. However, in select cases FWPA may invest in near-to-market technologies where the benefits of the investment are delivered to stakeholders through the early availability of viable technologies.

FWPA's research providers and key contractors

AUSTRALIAN GOVERNMENT

CSIRO
Department of Agriculture, Fisheries & Forestry
ENSIS
Land and Water Australia
Rural Industries Research & Development Corporation

STATE FORESTRY RESEARCH & DEVELOPMENT ORGANISATIONS

Department of Agriculture & Food Western Australia
Forestry Plantations Qld
Queensland Department of Primary Industries and Fisheries

INDUSTRY ASSOCIATIONS

Association of Consulting Foresters of Australia
Australian Plantation Products & Paper Industry Council
Australian Forest Growers
Australian Wood Panels Association
Engineered Wood Products Association of Australia
Forest Industries Association of Tasmania
Forest Industries Federation (WA) Inc
Glued Laminated Timber Association of Australia
Plywood Association of Australasia Ltd
South Australian Wine Industry Association Inc
Southern Tree Breeding Association

Timber and Building Materials Association
Tasmanian Timber Promotion Board
Timber Development Association (NSW) Ltd
Timber Queensland

UNIVERSITIES

Monash University
RMIT
Southern Cross University
Swinburne University
University of Canterbury (NZ)
University of Melbourne
University of New England
University of Queensland
University of Tasmania
University of Technology, Sydney

PRIVATE COMPANIES AND ORGANISATIONS

Agtrans Pty Ltd
Austimber 2008 Pty Ltd
Australian Rural Leadership Foundation
Barrann Enterprises Pty Ltd
Breitinger Consulting
Bushfire & Environmental Services
Coretext Pty Ltd
Design Junction Pty Ltd
Energy Networks Association
Eumoyini Options Pty Ltd

Fibre-Gen Instruments Ltd
Forest Contracting Services (Tas) Pty Ltd
Forestry Pacific Pty Ltd
Four Scenes Pty Ltd
Frame Australia Pty Ltd
Holmes Mcleod Consulting Engineers Pty Ltd
Innovatek
Lyngco Consulting
MBAC Consulting
Momentum Technologies Group
Neilson Publishing Pty Ltd
Poyry Forest Industry Pty Ltd
QA Pty Ltd
Sherbon & Osborn Communications
Southern Tablelands Farm Forestry Network
Standards Australia
Studio Equator Pty Ltd
Sustain Ability International Pty Ltd
The Carnot Group Pty Ltd
The Fifth Estate Consultancy Pty Ltd
Timberbuilt Pty Ltd
Timberdesign Australasia
TPC Solutions
Trademark Solutions Pty Ltd
URS Australia Pty Ltd
Wood Products Victoria Ltd
World Forest Institute

INDUSTRY PROMOTION

FWPA's investment in promotion and marketing is designed to increase the value of wood-based products sold in Australia by increasing demand and reducing constraints on their use and supply. This is a new area of operations for the company and a considerable amount of background work and stakeholder consultation has been undertaken in the development of a generic wood promotion to be launched in October 2008.

During the 10 months to 30 June 2008, \$0.64 million was invested in developing this campaign for the industry. The wood promotion campaign will focus on the general benefits and attributes of forests, wood products and the industry.

Wood promotion campaign

The underpinning rationale is the fact that wood is the most renewable, sustainable material on the planet. It can be regrown, reused, recycled and its increased use can help with reducing carbon dioxide emissions and provide temporary carbon storage. The success of the campaign will be measured through changes in attitude to the use of wood, both

from professionals, consumers and over time through quantitative tracking research. The key outcomes for different market segments are:

Consumers: To view wood-based products as "environmentally friendly" compared to other products and make purchases in favour of wood-based products.

Specifiers: To use more wood-based engineering or decorative products in both traditional and non-traditional situations.

Government: To remove barriers against the use and supply of wood-based products and to actively support the increased use of wood-based products.



Industry: To undertake complementary integrated marketing programs that grow the market for wood-based products.

As an advocacy campaign it is important to create a brand that is distinct from FWPA. A unique campaign name and logo will be developed with its own web site.

Campaign highlights

The industry reference group comprising marketing professionals from member companies and industry associations provided input into the campaign development and linkage to key stakeholders.

A number of key marketing service providers were appointed to develop the campaign in a robust and scientific manner. For example, an iterative research process was undertaken to determine the most appropriate content and context for the campaign. The research was split into two separate phases of 30 in-depth interviews

with a random sample of consumers. The first phase tested core messages and context, and the second phase tested headlines, potential campaign lines, and art direction.

A key finding of the Phase 1 research was that while people understand trees absorb CO₂, they do not realise that wood products are a form of carbon storage. Such a gap in general understanding leaves the industry exposed, especially given the current focus on carbon in climate change strategies.

The Phase 2 research found that connecting climate change with familiar wood images creates a powerful message, and as such will be used in the development of our advertising campaign.

The first phase of the promotion will be a print advertising campaign, coupled with a strong public relations program aimed at industry professionals and consumers to pave the way for the main campaign.

Core messages

Consumer message

- Wood stores carbon collected from the atmosphere
- Wood is renewable
- Increased use of wood can play a part in mitigating climate change

Architect/specifier messages

- Wood is sustainable
- Wood is versatile
- Wood is exceptional both in structural and aesthetic terms

Merchant message

- This is a serious long-term campaign to address wood use
- Key themes are (consumer and architect/specifier messages)
- You can use our branding and templates to piggyback off our program

The images for the promotion campaign will reflect the role that wood plays in everyday life. Campaign messages will convey wood's role in mitigating climate change through carbon dioxide absorption and carbon storage.

RESEARCH AND DEVELOPMENT

MARKET ACCESS AND DEVELOPMENT

This is a highly active area of research with 12 new projects initiated during the year, 15 ongoing projects and 14 completed projects from previous years. During the 10 months to 30 June 2008, a total of \$2.79 million was invested in Market Access and Development R&D, with a future commitment to approved projects of \$2.58 million.

The objectives underpinning the investment in Market Access and Development include:

- Evaluating markets and likely trends both nationally and internationally to enable the forest industry to develop strategies for business and industry growth, and new science and technology.
- Maintaining and expanding market access for timber, engineered wood and fibre products, and ensuring the availability of design information and technical support for wood products.
- Developing knowledge in the community about forest resources, the forest industry, and the environmental credentials of wood products.
- Supporting the development of common industry standards, including applications in e-business.

Projects in this program may have been initiated under the program's previous title, the Market Knowledge and Development program. Details of all initiated, ongoing and completed projects are listed in the Appendix.

Program highlights

NEW PROJECTS

Fire regulations and wood products¹

More than \$700,000 has been invested in this three-year project to collate and disseminate fire-related research conducted during the past decade. The research addresses issues and regulations which currently restrict the use of timber in fire prone areas, particularly in commercial construction. The project will provide data and results for timber species in limiting applications, such as bushfire prone construction and fire hazard properties in commercial buildings. Results will be released to the industry when they become available to assist with a speedy adoption by the industry and specifier community.

Selecting engineered wood products²

This project was initiated and completed during the year and resulted in a user-friendly and informative guide for the best practice selection, preservative treatment, design, installation and finishing of engineered wood products to ensure the quality and performance over a range of applications, hazard exposures, and design lives.

Engineered wood beam strategy³

This project is continuing and will develop important engineering design information for timber and wood-based products to reduce the use of non-wood beams in single family housing in favour of engineered wood beams. It has the potential to increase demand for high-valued engineered wood products.

Modern fence design⁴

Also initiated and completed during the year this project investigated the attributes of timber paling fences for their selection, construction, maintenance and life expectancy based on a survey of fencing contractors. The key findings included the need to develop best practice processes to improve the skills of fencing contractors, with an emphasis on timber quality to provide an easily maintained, quality product.

Structural timber guidelines⁵

To be completed in 2008, *Guidelines for the verification of structural timber properties* will provide generic procedures for producers to use in verifying the structural properties of softwood solid sawn structural timber. This project was developed in consultation with timber producers. Establishing minimum requirements for structural timber will offer consumers high levels of assurance that the products they purchase have the required properties. Industry will need to give further consideration to the processes required for marketplace surveillance and verification of the utility of structural timber.

Australian timber standards review⁶

A major project initiated during the year is a review of the way timber and wood product standards are developed and maintained in Australia. The project will make recommendations about standards development during the next five to 10 years, taking into account changing industry demographics, reduced technical capacity and funding within Standards Australia and international standards.

COMPLETED PROJECTS

Comparing biodiversity impacts⁷

The University of Tasmania reviewed existing methods and considered alternatives to compare the biodiversity impacts of timber and other building materials. The study incorporated biodiversity impacts as part of the national Life Cycle Assessment protocols currently being developed.

Building material decisions⁸

HIA Australia has completed a survey of the country's top 20 volume home-builders (who have a combined share of about 20 per cent of the total housing market) to identify what influences their material choices. Cost, material performance and building regulations were found to be the key factors behind their selection of materials. Environmental concerns played only a small role and the regulated environmental rating systems were found to be actually deterring builders from using timber.

ONGOING PROJECTS

Non-traditional markets for timber⁹

The research component has been completed and it evaluated opportunities for timber use in non-traditional markets, including multi-storey residential and commercial or public building construction. New Zealand research company Scion has found opportunities which could potentially double timber's market share in these markets over the next 10 years. Prefabricated construction systems, such as flooring, offered the greatest potential, based on existing industry skills and technologies.

Timber-stored carbon

A review of the methodologies and mechanisms used to calculate the carbon stored in timber is underway.¹⁰ It will also consider mechanisms for the inclusion of

wood products as legitimate carbon offsets in conjunction with the development of a national emissions trading scheme.

This project supplements a previous project completed during the year which evaluated the potential impacts of different emissions trading scenarios on the forest and wood products industry.¹¹ This work is providing valuable background information for the industry in developing responses to national emissions trading debate.

Multi-residential timber construction¹²

Regulations for the construction of multi-residential buildings have been biased against timber and this project is identifying a number of ways timber construction procedures can be improved to meet acoustic and fire protection performance in particular. New practices and techniques are being developed for inclusion in an update of the 1994 *Multi-Residential Timber Framed Construction Guidelines*, using a unique method to balance the often competing requirements of fire safety, acoustic performance, structural integrity, build-ability and cost.

Access to industry information¹³

FWPA continues to co-invest with the Australian Bureau of Agricultural and Resource Economics (ABARE) to improve the quality of national forest and forest and wood product statistics and reporting.

A survey of Australian sawmills was completed to garner support for annual surveys, with the potential to obtain additional information each year depending on relevant policy or industry issues. The results from annual surveys has demonstrated the benefits of having comprehensive, consistent sawnwood production data in Australia.

Pine roofing borer risk¹⁴

This project will assess how susceptible untreated pine roofing in Perth, Western Australia, is to attack from European House Borer beetles. To date, test cells to assess the viability of borers in housing roof spaces have been placed. The aim is to help pine timber producers and the building and pest control industry in Western Australia make appropriate investment decisions about reducing the risk to timber construction of borer attack. This is a component of a project to control and eradicate borers in WA.

International timber standards¹⁵

FWPA funds Australia's participation in the development of ISO standards for structural timber, and has helped to shape the form of standards in a number of cases so that they are compatible with Australian grading, testing or design standards. Over the past three years the ISO Committee has developed new standards on the testing of structural timber, a number of different methods of testing glue bond in glulam beams, and hazard classes for durability of timber. Ongoing work includes the preparation of standards on I-beams, LVL, shear panels and characteristic values. Some decisions have been made on a number of other issues directly relevant to Australia. These include an important decision not to produce an ISO timber design standard or an ISO suite of strength classes. As Standards Australia has committed to adopting ISO

Standards where appropriate, it is vital that the wider industry has a strong voice in developing ISO Standards.

Australian representatives chair working groups on finger jointed timber, round timber and on determination of characteristic values.

Resources for construction education and professional development¹⁶

High-quality education materials help keep timber on the teaching curriculum in the TAFE and tertiary education sector. FWPA continues to fund the development and review of materials, provided in formats easily used by construction industry students and teachers. This initiative is being expanded to develop technical design resources for design and construction professionals, and a range of continued professional development courses.

CALCULATE TIMBER LIFE WITH CONFIDENCE

World-first Australian research culminated in the March 2008 launch of the *Timber Service-Life Design Guide*, which will give building and construction industry professionals greater confidence in selecting timber for construction projects.

The guide and related 'tools' are the result of a 10-year, multi-million-dollar collaboration between scientists at CSIRO, state forestry agencies and the timber industry. The timber durability design project was conceived in 1996 and led by internationally recognised CSIRO building engineer Dr Robert Leicester, with funding from CSIRO, industry and Forest & Wood Products Australia.

The aim of the research was to promote the use of timber in construction, improve safety and reduce long-term costs. It has resulted in the development of the *Timber Service-Life Design Guide*, *Timberlife* software

and associated timber design procedures.

The software, in particular, allows users to trial a series of "what if" scenarios to test the durability of their timber selections for a wide range of applications – from sole plates to suspension bridges.

Dr Leicester says the design guide takes the uncertainty out of using timber by applying structural engineering criteria and predictive modelling to assess how long different timbers will last in a wide range of conditions.

"The effective service-life of timber can range anything from one year to 100 years, depending on the conditions it encounters," Dr Leicester says. "There is a wide natural variation between different timber species, the effectiveness of timber treatments and climatic conditions. What will perform for 50 years in Alice Springs may not necessarily perform that well in

Queensland's Airlie Beach, for example.

"Our work has the potential to cut costs on construction projects by choosing the right materials and treatments for the conditions. It will also help preserve timber in-use by indicating the best maintenance treatments, and what can be done to reduce the risks of decay and pest attack," he explains.

The research has rated 80 timber species used in Australia into durability categories for each of five key hazards, and has also developed geographic risk zones. Dr Leicester says the five key hazards considered likely to reduce the service-life of timber were in-ground decay fungi, above-ground decay fungi, marine borers, subterranean termites and corrosion of fastener systems.

Review of Australian Standard 1720¹⁷

FWPA is helping to fund the revision of the timber building codes AS1720 and AS/NZS 4046.3. The review is being conducted in two stages, with a revised draft standard incorporating public comments to Standards Australia recently completed. Once ratified this new standard will form the basis of the timber building code. Stage two of this project is revising further elements of AS1720.

Endnotes

1. *Reducing fire regulatory barriers and standards on timber and wood products* (PN08.1070)
2. *Guide to the specification, installation and use of preservative treated engineered wood products* (PR08.1062)
3. *Strategy for large span second storey timber and wood products* (PN08.1065)
4. *Modernising timber paling fence design* (PR08.1063)
5. *Guidelines for verification of structural timber properties* (PN08.1061)
6. *Future development processes for Australian timber standards* (PR08.1064)
7. *Methods for comparing the biodiversity impacts of timber and other building materials* (PR07.1050)
8. *Construction techniques and building material purchasing decisions of Australia's top 20 home builders* (PN07.1048)
9. *New applications of timber in non-traditional market segments, high-rise residential and non-residential (commercial) buildings* (PN07.1054)
10. *Carbon in timber within a national emissions trading scheme – methodologies and mechanisms* (PR08.1066)
11. *Impact of carbon trading on timber products* (PR07.1059)
12. *Contemporary sound and fire-rated timber framed construction practices for low-rise building (residential and commercial)* (PN07.1051)
13. *FWPA statistical services* (PN06.1035)
14. *Pine timber roof environments in Western Australia and its susceptibility to European House Borer* (PN08.1068)
15. *Australian participation in the ISO TC 165* (PR06.1036)
16. *Technical resources program – supporting timber education and training* (PN05.1024 and PN08.1069)
17. *Stage 1 revision of AS1720 and AS/NZS4063* (PR07.1057), (PR08.5076)



The key outcomes are:

- Macro and micro timber hazard classification systems and effects;
- Quantified degradation rates with strength and serviceability losses including times for in- and above-ground decay, corrosion of fasteners and marine borer attack – taking into account a large range of parameters including:
Hazard level,
Species durability and/or preservative treatment,
Timber geometry/size and exposure,
Finishes and maintenance regimes,
Exposure to airborne or industrial pollutants (corrosion);
- Termite cost/risk management tools.

Copies of the *Timber Service-Life Design Guide* and *Timberlife* software are available from the timber industry organisations in each state.

Architects, designers and builders will be able to identify the best timber and treatments for specific purposes, such as beachfront boardwalks, thanks to the *Timber Service-Life Design Guide* and *Timberlife* software.

RESEARCH AND DEVELOPMENT

PRODUCTS AND PROCESSING

The focus of this research theme is to improve the productivity and efficiency of industry through processing improvements, and greater reliability of timber and wood products. Many of the projects funded through this program have five to 10-year time frames. A total of \$0.83 million was invested in projects during the year, including two new projects, 13 ongoing projects and five completed projects. As at 30 June 2008, FWPA had future commitments to products and processing research totalling \$1.05 million.

The objectives underpinning our investment in products and processing include:

- Assisting the adoption of efficient harvesting, handling and processing technologies for small diameter logs.
- Increasing the effectiveness and efficiency of drying technologies and processes.
- Developing and adopting environmentally benign adhesive and finishing technologies appropriate for the range of Australian commercial species.
- Ensuring products meet durability, stability and in-service requirements.
- Developing additional higher value products from residues, low-grade logs, fuel wood or recycled timber.
- Modifying wood or developing optimised biocomposite materials that achieve higher performance specifications than current materials.

Projects listed under this program were initiated under the previous Manufacturing and Products program. Details of all initiated, ongoing and completed projects are listed in the Appendix.

Program highlights

NEW PROJECTS

Economic benefits from sawmill residues¹⁸

A desktop review of bioenergy and biofuel generation from sawmill residues was initiated and completed during the year and has suggested a range of options with the potential to address issues such as CO₂ emissions, fossil fuel use, energy security and waste disposal. The report has found that while chemical products produced from wood residues are lucrative options, they are a long way from commercial production in Australia. The review provides cost estimates for energy production using different processes and commensurate residue volumes – information that can be immediately used by industry.

Vacuum kiln drying for hardwoods¹⁹

This new project will evaluate the viability of super-heated steam vacuum drying for Australian commercial hardwood species. It will also develop a predictive drying model and drying schedules for processing commercially significant hardwood species in new reduced-pressure kiln systems. The potential benefits include reduced energy costs from shorter drying times, and improved quality of final products from difficult-to-dry commercial hardwoods.

ONGOING PROJECTS

Keeping nailplates in place²⁰

This major project addresses quality control and quality accreditation systems for producers of structural components, and it aims to determine if shrinking and swelling of timber arising from different atmospheric exposure conditions is a possible cause of nailplate withdrawal (backout) in Australian wood structures.

It will also test techniques to minimise the potential occurrence in the future. Field monitoring, roof inspections, and laboratory experiments are nearing completion, and will be used to validate and calibrate the theories and models, which will then be used to predict the extent of withdrawal under various exposure scenarios.

A summary report from field inspections will be developed to complement the findings and recommendations arising from the scenario analyses. The techniques developed in this project will apply to a range of fastener types (connectors), and may potentially be used to design fasteners less affected by moisture changes and for a range of exposure scenarios.

Improving timber performance

There are number of projects focusing on improvements in the performance and durability of timber products, to potentially open new market opportunities.

1. Faster screening of preservatives²¹

This project will compare a range of H3 timber decay test methods expected to cause accelerated decay. The aim is to develop tests which can reduce, or even halve, the period required to assess new wood protection preservatives.

2. Evaluation of a new gluing system²²

Isocyanate-based adhesives, which have been successful in overseas markets, are being tested for setting time and reliability on local timber species and in Australian climatic conditions.

3. Smoother fire retardant finishes²³

Normal fire retardant impregnation (FRI) causes aberrations to the appearance of products like wood cladding. Completed during the year, the project has determined the depth to which treated western red cedar can be machined and still comply with AS 3959, fire retardant-treated timber requirements. The outcome is a visually pleasing product that offers all the protection of standard FRI treated timber.

Glue laminate risk assessment²⁴

FWPA has also funded the development of a risk management framework for the Glulam Laminated Timber Association of Australia (GLTAA) members. This will form the basis for a review of relevant Australian Standards, particularly AS/NZS 4364:1996 and allow members to adjust more quickly to changes in the standards.

COMPLETED PROJECTS**Insecticides from white cypress²⁵**

A three-year project funded in part by FWPA, is expected to result in the commercialisation of extracts from white cypress milling residues for use as an insecticide. Queensland Department of Primary Industries and Fisheries submitted patents over the active chemical ingredients and extraction process after completing the project. Potential insecticides could be developed for control of a number of insects including silverleaf whitefly, cattle ticks and thrip.

Moisture meter corrections²⁶

CSIRO has provided corrections for the standard resistance and capacitance (Wagner) meter readings for ACQ treated radiata and slash pine.

Wood Quality Initiative²⁷

FWPA's funding of the New Zealand research company WQI Ltd ended on 30 June 2008, six months before WQI winds up in December 2008. FWPA has contributed to the operating costs of the company, which has undertaken a spread of research related to radiata pine. Major benefits from FWPA's involvement include access to wood quality assessment tools developed through research for more efficient sorting and processing of logs and timber.

A Solid Wood Initiative research consortium is being established to follow on from the WQI, and FWPA will support this project, gaining benefits from the research undertaken.

Endnotes

18. *Economic benefits from sawmill residues* (PR08.2046)
19. *Evaluation of super-heated steam vacuum drying viability and development of a predictive drying model for Australian commercial hardwood species* (PN08.2047)
20. *Prevention of nailplate tooth withdrawal in plated timber trusses* (PN06.2032)
21. *Faster screening of preservatives* (PN07.2039)
22. *Durability of isocyanate-based adhesives in engineered wood products* (PN05.2015)
23. *The effect of post-treatment machining on the fire test performance of Chemco FRX-treated western red cedar* (PN06.1037)
24. *GLTAA risk management framework* (PR07.2044)
25. *Insecticides from white cypress* (PN04.2006)
26. *Moisture meter corrections for ACQ treated pine* (PN07.2045)
27. *Wood quality initiative (2)* (PN06.2028)

NEW MARKETS REPAY FAITH IN INVESTMENT

An investment of almost half a million dollars in new technology that identifies checks (defects) in finished timber products has already paid for itself several times over, says the man who has overseen the development, ITC Timber's, Vince Hurley.

Mr Hurley is general manager at ITC Timber's Heyfield hardwood sawmilling operation in Victoria, which previously operated as Neville Smith Timber. ITC merged with Neville Smith Timber in September 2004 to create an integrated forestry and timber group.

The new scanning technology was identified from extensive research undertaken by CSIRO followed by a search to find technologies nearing commercialisation that could potentially be used to improve timber sorting and processing. Mr Hurley says CSIRO identified ultrasonic detection techniques being used in the US nuclear and aerospace industries.

When the Californian-based company Airstar Inc was willing to test the technique on timber, ITC Timber provided

small quantities of milled product for a trial. CSIRO's final report, prepared for the FWPRDC, said the technique "had potential".

"From there we spoke to Airstar and we organised a much bigger volume of finished timber to go over, and I spent two weeks in California repeatedly scanning and cutting the timber, until we were sure we had the technique right," Mr Hurley says.

Airstar has now custom-made three machines for ITC Timber. The original machine installed in January 2006 is six metres wide and scans the milled timber crosswise. The other two machines are smaller, about 300mm wide and provide a longitudinal scan of timber and laminated timber products.

The new lamination scanner was installed in February 2008, and Mr Hurley says it scans the bonding of the glue in laminated wood products that ITC Timber produces at Heyfield, including its new SUPALAM™ brand launched last year.

"If the glue doesn't work, and there's a delamination within a finger-jointed beam, this equipment can see it. Likewise, you can't see small checks and voids inside solid timber, but the ultrasonic scanner allows us to find them. We can separate affected timber from higher-quality select material."

Mr Hurley says the technology allows the company to improve the quality of its products, and enter new higher value, appearance-grade markets. It also means the company can track its processes to identify what is contributing to an increase in checks.

Mr Hurley believes this type of technology will become the industry standard, although so far ITC Timber is the only company in Australia using it. He observes that while the FWPRDC, and now FWPA, commissions relevant research, it remains up to industry to make the most of the outcomes.

Ultrasonic scanners are used at ITC Timber's Heywood operations as part of a quality control process to identify and eliminate flaws from their products.

"It is up to industry to make the most of research findings."

Vince Hurley,
GENERAL MANAGER,
ITC TIMBER

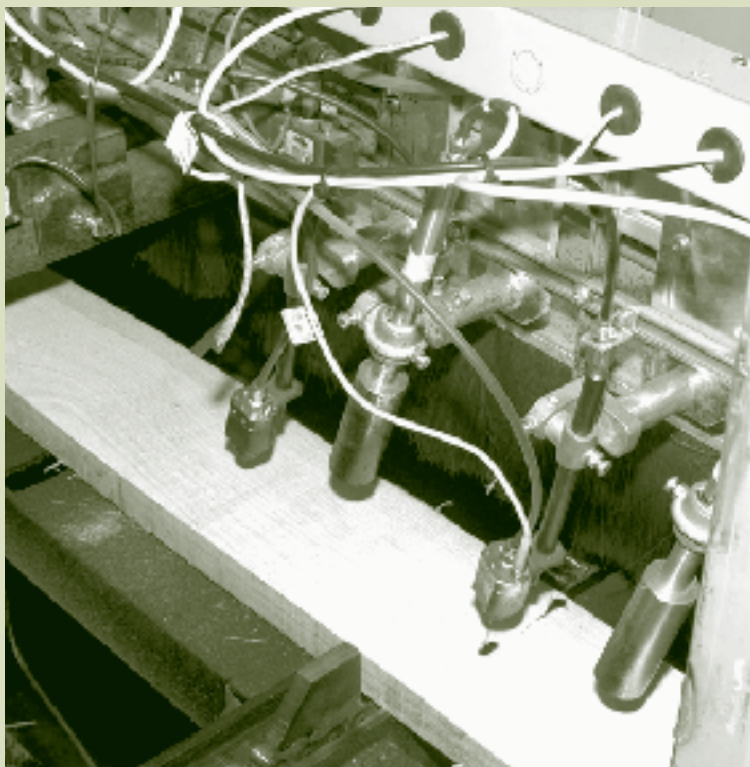


PHOTO: ITC TIMBER

RESEARCH AND DEVELOPMENT

SUSTAINABILITY AND RESOURCES

Sustainability and Resources research typically involves long time frames, and of the 39 projects funded in this program 22 are still ongoing. There were three new projects initiated and 14 projects completed. Funding during the year totalled \$1.48 million, with future funding commitments of \$0.55 million.

Investment in this program is underpinned by the following objectives:

- Understanding the wood properties of the forest resource, their most appropriate use, and improvement of these properties for specific end use.
- Developing non-destructive techniques for pre-harvest resource assessment, segregating trees, logs, timber and fibre for highest value recovery.
- Supporting the development of sustainable forest management assessment systems, certification and chain-of-custody arrangements for plantations and multiple-use forests.
- Developing control or management strategies for biotic and abiotic risk factors (pests, fire, drought, catchment water).
- Developing and applying precision forestry systems and technologies for more efficient plantation forest management.

Details of all initiated, ongoing and completed projects are listed in the Appendix. Projects in this program may have been initiated under either the previous Resource Characterisation and Improvement program or Sustainable Forest Management program, which have now been combined.

Program highlights

NEW PROJECTS

Compromised wood²⁸

Essentially a New Zealand initiative, FWPA is supporting research at Canterbury University on how non-cellulosic polysaccharides (hemicelluloses) affect biomechanical processes. The objective is to better understand factors affecting pine quality. This knowledge will then be used to suggest how the structural quality of radiata pine can be improved, and also how forest and mill practices can be made more efficient.

Subtropical pine production²⁹

To improve decision making for growers and processors of subtropical pines, a new

project is exploring the complex interactions and trade-offs between growth, silviculture, environment and their interactions. The aim is to increase plantation profitability while maintaining or enhancing production volume and wood quality.

Eucalyptus globulus breeding³⁰

Plants with commercially significant traits created by Southern Tree Breeding Association (STBA) researchers have been planted in field trials to determine their viability. Eight fully pedigreed field trials were established for *Eucalyptus globulus* and will be used to determine the relative importance of additive and non-additive genetic effects for commercially important traits, the basis of racial differentiation, and the stability of genetic parameters across different growing environments. This project has additional support from the Australian Research Council, as part of Linkage Project LP0884001, with \$1 million to fund future research activities (post establishment).

ONGOING PROJECTS

Climate change risk assessment³¹

This project is evaluating the risks of climate change to Australia's plantation estate and the potential management and estate design strategies that might mitigate the impacts. It will include estimates of the potential effect on timber supply from Australia's plantation region.

Pine for dry climates³²

This project is reviewing the performance of alternative pine species and hybrids in Australia's low-rainfall zones. A web-accessible database will be developed identifying the availability and nature of germplasm from alternative pine species, and identify hybrid combinations that have the most potential.

Tracking tree genetics and performance³³

Southern Tree Breeding Association (STBA) holds national tree breeding data for *Pinus radiata* and *Eucalyptus globulus* in its DATAPLAN® database. This is now linked to its TREEPLAN® software to evaluate, identify

and commercially value tree performance traits. FWPA is funding further linking of the STBA program MATEPLAN™, which tracks the genetics for seed orchards. It accounts for familial relationships in the orchards to ensure sufficient genetic diversity is maintained. This will be linked to SEEDPLAN™, the national tree breeding program's arboreta. The proposed linking of SEEDPLAN™ with the DATAPLAN® (national databases) and TREEPLAN® systems will ensure tree improvement is directed at enhancing economic return for the plantation industry. SEEDPLAN™ will be important for describing the genetic worth of seedlots and better matching improved genetics to specific sites.

COMPLETED PROJECTS

Acoustic sorting trials³⁴

In the search for better, non-destructive ways to identify which logs will produce structural grade timber – prior to milling – the CRC for Forestry has successfully conducted acoustic sorting trials on plantation grown *Eucalyptus nitens*. The CRC study indicated that acoustic tools developed for softwoods can be used to sort stiffness grades from young plantation

hardwood material, particularly plantation-grown *E. nitens*, which show a wide variability in stiffness and strength characteristics.

Hoop pine management options³⁵

A project to identify which characteristics of plantation-grown hoop pines most affect the value of logs has found that stem size, straightness and internode frequency are the most important influencers of value, and that managed pruning is essential for obtaining higher value clear log lengths from the tree butt. The project developed and demonstrated systems that characterise, assess and monitor the resource prior to harvest. This helps with more efficient log processing and marketing to improve the resource's commercial value.

Tropical timber qualities³⁶

An assessment of 19-year-old Gympie messmate and 15-year-old red mahogany, salvaged from the destruction of Tropical Cyclone Larry in the Innisfail region in 2006, has provided a guide to the potential wood quality of these tropical timbers that is attracting considerable

GENETIC DATABASE AIDS GOOD BREEDING

Increased profitability and performance of Australia's plantation sector is the driver behind the development of TREEPLAN®, an 'industrial strength' data analysis program designed to quickly and accurately identify the best plant genetics based on tree performance. The computer software development has been funded over three years through what is now FWPA's Sustainability and Resources R&D program.

The Southern Tree Breeding Association (STBA) is a not-for-profit research agency leading the national tree breeding effort that has developed TREEPLAN® to fast-track the selection of breeding stock for radiata pine

and eucalypt plantations.

STBA general manager Dr Tony McRae says version two of the program, released in December 2007, represented a major upgrade of the original software. It has already been used to analyse the data from 275,000 genetically different radiata pine trees in 145 trials across the country. The program computes hundreds of measurements for each tree across a wide range of characteristics, at different stages of its growth.

Dr McRae says these trees represent about 4300 different 'families', and the program can track the familial relationships between all trees in the trial. Identifying these relationships

is important in maintaining genetic diversity and preventing inbreeding. TREEPLAN® can also use the genetic relationships to adjust tree performance to account for the effect of different environmental factors, such as soils, climate and silvicultural techniques.

The analysis identifies the best performers according to specific characteristics, and according to region. There are four geographic blue gum zones, and six zones for radiata pine.

"It has at least doubled and maybe tripled the efficiency with which we select trees for breeding," says Dr McRae.

"That should translate to significant improvements – perhaps double the rate of gain

investor attention. Researchers from the Queensland Department of Primary Industries and Fisheries found both species have the potential to provide solid wood and structural products from plantations in northern Queensland if managed for sawlog production, rather than pulp production.

Model to manage pruning³⁷

The private consulting group MBAC has developed a commercial tool, Treetop, to allow forest managers to model and assess the outcomes of pruning and thinning options in eucalypt plantations grown for appearance grade products. Treetop is available to growers, investors, and processors and can be downloaded from the FWPA web site.

Review of international forestry practices³⁸

Australian forest practices have been described within a global context as part of an international review of forest practices and systems in 20 countries. FWPA has funded the review of national practices to provide a benchmark for the local industry as well as representation internationally, with the opportunity to promote informed discussion

and debate about policy design, effective forestry practices, forest certification standards and forest law enforcement at a national and international level.

Endnotes

28. *Compromised wood* (PN08.3028)
29. *Managing subtropical pines for improved wood production based on a better understanding of genetics, silviculture, environment and their interactions* (PN08.3029)
30. *Genetic architecture of Eucalyptus globulus for breeding and deployment* (PR08.4034)
31. *Climate change and Australia's plantation estate: risks and management to mitigate impacts* (PN07.4021)
32. *Review of alternative pine species for low-rainfall zones of Australia* (PN07.4027)
33. *Genetic gain optimisation in tree breeding (MATEPLAN™) and deployment (SEEDPLAN™)* (PN07.4025)
34. *Sorting plantation Eucalyptus nitens logs with acoustic wave velocity for structural and appearance timber production* (PN07.3018)
35. *Hoop pine resource evaluation (resource and processing properties of Araucaria cunninghamii)* (PN07.3020)
36. *Evaluation of wood characteristics of tropical post mid-rotation plantation Eucalyptus cloeziana and E. pellita* (PN07.3022)
37. *Commercial model to assess pruning and thinning options in eucalypt plantations for appearance grade products* (PN07.4023)
38. *Comparative analysis of forest practices globally* (PR07.4022)

compared to breeding without this kind of analysis. In the past we've identified some good trees for our breeding programs. But we've also used trees that did not perform so well – trees, which using this program, we would not have selected," he says.

Improvements incorporated in TREEPLAN2® will allow genetic and DNA information to be analysed in conjunction with observed performance traits and more accurate statistical modelling.

STBA has already identified genetically improved radiata pine trees with a combination of performance characteristics that is expected to improve plantation profitability by a further \$2400 per



hectare (net present value).

STBA also provides analysis for both radiata pine and eucalypts, with plans to develop TREEPLAN® for other species including subtropical pines, other hybrids and clones. It is a web-based program, which

TREEPLAN® is helping to identify more profitable genetics for a number of plantation species including radiata pine.

means that data can be entered anywhere in Australia (or the world) for analysis.

"We're preparing to run some trials with a few state government agencies and smaller tree breeding businesses to show them the potential of the program, and the potential to increase the efficiency of their breeding programs. The more participants in the national breeding program we have and the more data we have, the more quickly the best genetics can be identified and developed as part of the national industry effort," he says.

SKILLS AND KNOWLEDGE

Projects funded under the skills and knowledge theme combine a number of research-related initiatives, as well as a range of industry consultation, communications and technology transfer activities. During the 10 months to 30 June 2008, a total of \$0.91 million was invested in 28 different projects including 10 new projects. Twelve projects continued from previous years were completed, and there are another six ongoing projects. FWPA has committed further funds of \$0.55 million.

FWPA has developed the following objectives for its skills and knowledge program:

- Creating high-quality knowledge products to support the delivery of the FWPA's outputs.
- Using partnerships, networks and technology to enhance awareness, dissemination, and application of new knowledge.
- Contributing to the support of research training that is of the highest standard and responsive to industry needs.
- Ensuring industry has access to leading edge research and pilot plant equipment.

Projects in this program may have been initiated under this program's previous title, the Services and Capabilities program. Details of all initiated, ongoing and completed projects are listed in the Appendix.

Program highlights

- A total of 15 industry advisory group meetings were held during the year to provide strategic advice to the company regarding program and project development and technology transfer.
- FWPA issued a call for postgraduate scholarship applications in August 2007 in response to identified industry priorities. Four scholarships were awarded and the candidates are now enrolled in scholarship-supported programs (see table page 27).

- Four FWPA postgraduate scholarship holders, Drs Jack Norton, Philip Blakemore, Con Adam and Mei Mei Ding, completed their theses during 2007-2008 and were awarded postgraduate degrees.
- One forest industry scientist was awarded a Denis M. Cullity Fellowship during the year. Mr Adam Redman will travel to AgroParisTech – ENGREF, France to improve the understanding of vacuum drying of refractory Australian hardwoods. He will use state-of-the-art equipment to obtain important wood property data to develop accurate vacuum drying schedules for current and future vacuum drying of refractory native forest and plantation Australian hardwood species.
- FWPA sponsored the Australasian Forest Genetics Conference held in Hobart in April 2007 with the theme "Breeding for Wood Quality", which attracted more than 90 scientists, mostly from Australia and New Zealand. The conference papers are to be published in a special edition of the *New Zealand Journal of Forestry Science*.
- The 2006-2007 Australian intern at the World Forest Institute was Mr Matthew Pope from Forests NSW. Mr Pope undertook a project to evaluate integrated field data management systems. His project was completed successfully and the full report is available on the FWPA web site.

FWPA-sponsored promotional and professional development activities in 2007-2008

ORGANISATION	EVENT
AUSTIMBER	AUSTIMBER International Conference, Mt Gambier, March 2008
Forestry Industry Engineering Association	2008 gold sponsorship
Australian Forest Growers	Biennial Conference, Albury/Wodonga October 2008
FRAME AUSTRALIA	FRAME AUSTRALIA Conference, Melbourne, June 2008
Australian Rural Leadership Foundation	Scholarship for leadership program (course 15) participant – Darren Shelden
Forest Industries Federation of Western Australia	Western Australia Timber Industry Awards, May 2008
Timber Development Association NSW	Australian Timber Design Awards, 'Environmental Commitment Category', 2008
Tasmania Timber Promotion Board	Sponsorship of stand at DesignEX exhibition, April 2008

- The company continued to co-invest in the new industry publication *Timber Design Australasia* published by Neilson Publishing and distributed to architects and designers throughout Australia.
- Content on www.timber.org.au continued to increase during the year. External access to company-supported web pages is monitored on an ongoing basis.

NEW PROJECTS

Australian timber design workshops³⁹

Workshops were held in major capital cities to further develop industry networking and engagement with the building design professions. The workshops are intended to maintain and increase building professionals' skill in timber design and construction and to disseminate recent research findings on timber use and sustainability to timber-user groups. The workshops also maintain timber's profile with building design professional groups and tertiary education institutions by offering targeted continuing education.

Tomorrow's Leaders for Sustainability⁴⁰

Tomorrow's Leaders for Sustainability (TLfS) is an initiative that helps young people understand the key issues of sustainability whilst also gaining the knowledge and skills to become leaders in their chosen career. FWPA is funding the development and roll out of the program in 2008 to help students benefit from a combination of leadership training and vocational projects. Content has

- A reprint of the 2006 report *Forests, Wood and Australia's Carbon Balance*, was issued as a result of continuing demand. The report, produced in conjunction with the CRC for Greenhouse Accounting, used figures from the National Greenhouse Gas Inventory to set out in a user-friendly format, the positive carbon balance for the sector through forest sequestration and carbon storage in wood products in service or landfill.

Other printed reports were:

Timber Service-Life Design Guide, Impact of carbon trading on wood products, Construction techniques and building material purchasing decisions of Australia's top 20 home builders.

- The number of project reports available on www.fwpa.com.au was 325 as of June 2008. This represents reports from most projects completed during 2007-2008 and prior to this reporting period.

Postgraduate students receiving FWPA support during 2007-2008

STUDENT	UNIVERSITY	THESIS TITLE	EXPECTED COMPLETION
PhDs			
Graeme Palmer	Southern Cross University	Wood conversion modelling	2009
Sasha Alexander	University of Western Sydney	Competition and collaboration in the Australian timber furniture industry – a value chain approach	2008
Sam Smith	University of Sydney	Improving the modelling of wood/water relationships during kiln drying and reconditioning of softwoods	2009
Leigh Aitken	University of Melbourne	The importance of environmental factors in microwave induced permeability of timber	2009
Adrian Hathorn	University of New England	Use of genotypic information for <i>Pinus radiata</i> improvement	2009
Levi Reid	Monash University	Investigation of sawmilling by-products as feedstocks for the furafuel process	2011
Lesley Francis	University of Queensland	Natural durability of Australian plantation hardwoods intended for high-value products	2011
Hamidul Islam	RMIT University	Comparative analysis of environmental impacts of timber-based construction system	2011
Edwina Loxton	Australian National University	Assessing socio-economic impacts of closure of native forest to timber harvest	2011
MASTERS			
Mark Dewsbury	University of Tasmania	The empirical validation of the thermal performance of lightweight framing systems in cool temperate climates	2009

been developed around career opportunities in the forestry and wood products industry, together with consideration of issues along the chain of wood production and consumption. So far the TLfS program has been delivered to teachers from six schools and three community groups, and showcased at a major educational conference.

Ecologically Sustainable Development⁴¹

With increasing public interest in ecologically sustainable development (ESD), FWPA has established an ESD knowledge broker who monitors the development of issues and potential opportunities for engagement and research. This includes the distribution of an email-based newsletter on the current issues and initiatives to identified stakeholders.

BEST PRACTICE GUIDES HELP TO DEVELOP FORESTRY SKILLS

Industry requests to help train new forestry plant operators and managers were the catalyst for the development of new Best Practice Guides for Commercial Thinning Operations in Native Regrowth and Plantation Eucalypt Forests.

The development and publication of the guides form part of FWPA's Skills and Knowledge program.

Author Mike Connell, of Eumoyini Options Pty Ltd, says the support of FWPA was vital in providing a national industry framework and funding for the project. This gave state forestry agencies, forestry contractors and training organisations confidence to take part. Forests NSW, VicForests, Forestry Tasmania, South East Fibre Exports (Aust) and contractors also provided significant financial and in-kind support to the project.

Mr Connell says the aim of silvicultural thinning is to reduce overstocking and maximise the growth of high-value, high-quality trees remaining after the operation, and subsequent sawlog returns when they are harvested at maturity. He says the longer the thinning is left, the less benefit

there is for the remaining trees. Nonetheless it is important that there are potential sawlogs in the stand and that the thinnings are large enough to make the effort and expense worthwhile. Damage to the retained trees must be kept to a minimum.

Striking this balance is the critical factor and the issues involved are addressed in the Best Practice Guides. The guides have been developed for silviculturalists, forest managers and contractors, working in both Silvertop Ash-Stringybark Forests and White Top-Stringybark forest types in south-eastern Australia. The guides help all plant operators. A 'glovebox' summary provides best practice techniques and photographs to help operators quickly identify the types of tree damage that can occur during thinning, along with suggestions for avoiding such damage.

Owner of the forestry contracting company Pope Logging, Steven Pope, was involved in the development of the guides and helped to identify 'best practice' techniques. He says the idea was to have something that could provide new and inexperienced operators

with a uniform briefing on how to harvest particular forest types, and the important factors to look for on these sites.

Mr Pope's operations are based in southern NSW, with eight staff and seven machines harvesting an average of 60,000 tonnes of hardwood pulp each year from thinning operations.

"When you're training someone there's always something you overlook, but when you read through the guide, the things you've missed jump out at you. The guides are great because they go through the whole process of establishing a work site for a thinning operation, selecting trees, identifying and preventing tree damage, and working as part of the larger logging process," he says.

The guides were distributed to industry participants in 2007 and are being used in the field, and as the basis for courses in commercial thinning operations. Further guides for other important forest types will be added to the set. They are also the basis of further simplified, interactive computer-based training resources being developed for plant operators.

Design guide for plywood shelving⁴²

An easy-to-use design guide has been developed to encourage designers and specifiers to use plywood shelving in commercial and industrial applications. Design procedures have been simplified and clearly explained to provide greater confidence in specifying plywood shelving.

Endnotes

- 39. *Support funding for Australian timber design workshops in major capital cities* (PR08.5092)
- 40. *Tomorrow's leaders for sustainability forestry model (Victoria)* (PR08.5091)
- 41. *ESD knowledge broker (sustainability)* (PR08.5087)
- 42. *Design guide for plywood shelving* (PR08.5086)

PHOTO: EUMOYNII OPTIONS PTY LTD



A forestry worker measures the growth of a sawlog, following commercial thinning of the forest stand.

DIRECTORS' REPORT

The Board of Directors of Forest & Wood Products Australia has pleasure in submitting its report for the financial year from 3 September 2007, when the company commenced, to 30 June 2008.

Directors

During the reporting period, the company's board comprised seven non-executive directors and the managing director.

FWPA's inaugural Board of Directors is made up of those who were serving as directors on the Board of the Forest and Wood Products Research and Development Corporation at the time when the corporation ceased and FWPA was formed to replace it.

The people identified in the table below were directors of the company for the whole of the financial year unless otherwise indicated. Further details of directors' qualifications, experience and Board responsibilities are on pages 6-8 of this report.

Mr Ron Adams CHAIRMAN	Non-executive director	
Mr Peter Zed DEPUTY CHAIRMAN	Non-executive director	
Ms Kathryn Adams	Non-executive director	
Mr David Hunter	Non-executive director	Resigned 30 May 2008
Mr Ken Last	Non-executive director	
Mr Nick Roberts	Non-executive director	Appointed 1 October 2007
Dr Sadanandan Nambiar	Non-executive director	
Dr Glen Kile	Managing director	Resigned 30 May 2008
Mr Ric Sinclair	Managing director	Appointed 18 June 2008

The Board of Directors appointed Mr Nick Roberts to fill a casual vacancy from 1 October 2007 to increase the Board's skill base in promotion and operational forestry.

Election of directors

FWPA's Board shall comprise between five and nine directors (including the managing director) at least two of which are independent directors. After the first Annual General Meeting, directors, with the exception of the managing director who is an employee of the company, are elected on a rotational basis by

the company's Voting Members at the Annual General Meeting. The appointments are for terms of three years.

Board Committees

Board Committees ensure appropriate management and review of company operations, and make certain that projects are adequately evaluated and project outputs are transferred to users. The Board Committees are: Audit and Finance Committee, Research and Development Investment Committee, and Promotion, Services and Communication Committee. All committee members listed below were members of the committee for the entire year, unless otherwise specified.

Audit and Finance Committee

Members: Mr Ken Last (Chair), Mr Ron Adams, Mr David Hunter (3 September 2007 – 30 May 2008), Dr Glen Kile ex officio (3 September 2007 – 30 May 2008), Mr Ric Sinclair ex officio (from 18 June 2008).

The key tasks of the Audit and Finance Committee are to:

- Ensure prudent management of the company's finances; ensure the Board makes informed decisions regarding the company's overall expenditures; ensure activities approved by the Board are consistent with Australian law relating to prudent financial management; ensure the terms and conditions of employment of the company's staff are consistent with the relevant policies and laws; and provide a general overview of the company's financial management.
- Liaise with FWPA's auditors; review the adequacy of internal controls and of compliance with relevant laws, regulations, policies and procedures; report to the Board on the adequacy of audit procedures; and promote accurate, high quality and timely disclosure of financial and other information to the Board and key stakeholders.

Research and Development Investment Committee

Members: Mr Peter Zed (Chair), Mr Ken Last, Dr Sadanandan Nambiar, Dr Glen Kile ex officio (3 September 2007 – 30 May 2008), Mr Ric Sinclair ex officio (from 18 June 2008).

The key tasks of the Research and Development Investment Committee are to:

- Provide recommendations to the Board regarding the company's R&D project investments; ensure the prudent management of the company's contractual R&D commitments; and work in association with industry advisory groups to develop R&D strategy and identify priorities.

Promotion, Services and Communication Committee

Members: Ms Kathryn Adams (Chair), Mr Ron Adams, Mr Nick Roberts (from 1 October 2007), Dr Glen Kile ex officio (3 September 2007 – 30 May 2008), Mr Ric Sinclair ex officio (from 18 June 2008).

The key tasks of the Promotion, Services and Communication Committee are to:

- Administer the Services and Capabilities program, including advising the company on knowledge management and

technology transfer from R&D activities; develop and implement the company's communication and technology transfer plans; and provide informed advice to the Board regarding the company's communication and technology transfer activities.

Board meetings

During the reporting period the Board held six meetings. Details of attendance by individual Board members are provided below.

Board and Committee Meetings, 3 September 2007–30 June 2008

DIRECTOR	BOARD		AUDIT & FINANCE		R&D INVESTMENT		PROMOTION, SERVICES & COMMUNICATION	
	No. meetings attended	No. meetings eligible to attend	No. meetings attended	No. meetings eligible to attend	No. meetings attended	No. meetings eligible to attend	No. meetings attended	No. meetings eligible to attend
Mr Ron Adams	6	6	4	4			4	4
Ms Kathryn Adams	4	6					4	4
Mr David Hunter *	2	5	2	3				
Dr Glen Kile *	6	6	4	4	3	3	4	4
Mr Ken Last	5	6	4	4	3	3		
Dr Sadanandan Nambiar	6	6			2	3		
Mr Nick Roberts **	5	5					3	4
Mr Ric Sinclair ***	1	1	1	1			1	1
Mr Peter Zed	5	6			3	3		

* Resigned with effect from 30 May 2008

** Appointed 1 October 2007

*** Appointed 18 June 2008

Nature of operations

The major activities of the FWPA during the financial year comprised:

- Providing research and development to support the Australian forest and wood products industry; and
- Providing domestic marketing and promotion services to the Australian forest and wood products industry.

There have been no significant changes in the nature of these operations during the period.

Results of operations

The operating result for the financial year from the inception of the company on 3 September 2007 to 30 June 2008 was a surplus \$979,931.

Rounding amounts

FWPA is a company of the kind specified in the Australian Securities and Investments Commission class order 98/0100. In accordance with that class order, amounts in the financial statements and the directors' report have been rounded to the nearest dollar unless specifically stated to be otherwise.

Significant events after the balance date

There have been no events between the end of the financial year and the date of this report, which in the opinion of the directors is likely to affect significantly the operations of the company, the results of those operations, or the state of affairs of the company in subsequent financial years.

Code of conduct

The FWPA Code of Conduct requires the Board and senior management to promote high standards of ethics and integrity. The language, attitudes and actions of directors, senior management and staff must reflect the principles of integrity and ethics, as well as the company's values and culture. The Code of Conduct recognises that FWPA's employees are vital to the fulfillment of the company's purpose and, consequently, the

highest level of staff satisfaction, health and safety must be maintained. It also encourages directors and staff to commit to the philosophy of continuous improvement at the corporate and individual levels.

Conflict of interest and register of interests

A director must disclose an interest wherever he or she considers there is a potential conflict of interest. This policy is consistent with Section 21 of the *Corporations Act 2001*. The Company maintains a Register of Directors' interests.

Risk management, fraud control and business recovery

The company has risk management, business recovery and fraud control plans in place.

Environmental regulation and performance

The company is not subject to any particular or significant environmental regulation.

Indemnification and insurance of directors and officers

Appropriate insurance policies were maintained for the period to cover directors and officers for professional indemnity; general liability; property loss, destruction or damage; increased cost of working/business interruption; official overseas travel and workers' compensation.

Auditor independence

The auditors' independence declaration in relation to the audit of the company's accounts for the financial year 30 June 2008, is set out in the financial report and forms part of the directors' report.

Registered office and principal place of business

Level 4, 10-16 Queen Street
Melbourne Victoria 3000
(03) 9614 7544



FINANCIAL REPORT

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Directors' Declaration

The directors of the company declare that:

1. The financial statements and notes, as set out on pages 36 to 49, are in accordance with the *Corporations Act 2001* and:
 - (a) comply with Accounting Standards and the Corporations Regulations 2001; and
 - (b) give a true and fair view of the financial position as at 30 June 2008 and of the performance for the period ended on that date of the company.
2. In the directors' opinion, there are reasonable grounds to believe that the company will be able to pay its debts as and when they become due and payable.

This declaration is made in accordance with a resolution of the Board of Directors.

Director 
.....
Ronald Adams

27 August 2008

Director 
.....
Alaric Sinclair

27 August 2008

Income Statement

From date of commencement of operations to 30 June 2008

	NOTE	2008 \$
Revenue	2(A)	7,683,781
Other income	2(C)	614,561
Employee benefits expense	3	(729,531)
Depreciation, amortisation and impairments	7(A)	(8,087)
Research & Development project costs	3	(5,594,116)
Industry and product promotion		(293,037)
Other expenses	3	(693,640)
Net surplus/(deficit)		979,931

Balance Sheet

As at 30 June 2008

	NOTE	2008 \$
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	4	6,546,123
Trade and other receivables	5	1,152,431
Financial assets	6	4,562,610
Total current assets		12,261,164
NON-CURRENT ASSETS		
Furniture and equipment	7	167,498
Total non-current assets		167,498
TOTAL ASSETS		12,428,662
LIABILITIES		
CURRENT LIABILITIES		
Trade and other payables	8	203,602
Short-term provisions	9	50,526
Other current liabilities	10	6,000
Total current liabilities		260,128
NON-CURRENT LIABILITIES		
Other long-term provisions	9	18,272
Other non-current liabilities	10	24,000
Total non-current liabilities		42,272
TOTAL LIABILITIES		302,400
NET ASSETS		12,126,262
EQUITY		
Retained surplus	11	11,146,331
Retained earnings		979,931
TOTAL EQUITY		12,126,262

The accompanying notes form part of these financial statements.

Statement of Recognised Income and Expenditure

From date of commencement of operations to 30 June 2008

	NOTE	RETAINED EARNINGS \$	RETAINED SURPLUS \$	TOTAL \$
BALANCE AT 20 AUGUST 2007				
Net surplus/(deficit)		979,931	—	979,931
Surplus of transferred net assets	11	—	11,146,331	11,146,331
Balance at 30 June 2008		979,931	11,146,331	12,126,262

Cash Flow Statement

From date of commencement of operations to 30 June 2008

	NOTE	2008 \$
CASH FLOWS FROM OPERATING ACTIVITIES		
Receipts from members and government		11,934,173
Payments to suppliers and employees		(7,220,865)
Interest received		398,487
Net cash provided by (used in) operating activities	13	5,111,795
CASH FLOWS FROM INVESTING ACTIVITIES		
Acquisition of property, plant and equipment		(105,784)
Acquisition of financial assets		(4,531,773)
Net cash provided by (used in) investing activities		(4,637,557)
CASH FLOWS FROM FINANCING ACTIVITIES		
Cash acquired on the transfer of operations		6,071,885
Net cash provided by (used in) financing activities		6,071,885
Net increase (decrease) in cash held		6,546,123
Cash at end of financial period	4	6,546,123

The accompanying notes form part of these financial statements.

Schedule of Commitments

From date of commencement of operations to 30 June 2008

2008
\$

BY TYPE

OTHER COMMITMENTS

Operating leases ¹	309,792
Other commitments ²	7,298,658
Total other commitments	7,608,450

Net commitments by type	7,608,450
--------------------------------	------------------

BY MATURITY

OPERATING LEASE COMMITMENTS

One year or less	63,547
From one to five years	246,245
Total operating lease commitments	309,792

OTHER COMMITMENTS

One year or less	4,667,824
From one to five years	2,630,834
Total other commitments	7,298,658

Net commitments by maturity	7,608,450
------------------------------------	------------------

NB: Commitments are GST inclusive where relevant.

1. Operating leases included are effectively non-cancellable and comprise leases for office accommodation.

Leasing arrangement: Lease payments are subject to annual increase in accordance with upwards movements in the Consumer Price Index.

NATURE OF LEASE	ANNUAL RENTAL	TERMS	EXPIRY	COMMITMENTS		TOTAL COMMITMENTS
				0-1 YEAR	1-5 YEARS	
Level 4, 10-16 Queen St Melbourne VIC 3000	\$ 63,547	5 years	13/05/2013	\$ 63,547	\$246,245	\$ 309,792

2. As at 30 June 2008, other commitments comprise amounts payable under grant agreements in respect of which the recipient is yet to either perform the services required or meet eligibility conditions.

The accompanying notes form part of these financial statements.

Notes to the Financial Statements

30 June 2008

Note 1: Accounting policies
Note 2: Revenue
Note 3: Expenses
Note 4: Cash and cash equivalents
Note 5: Trade and other receivables
Note 6: Other financial assets
Note 7: Furniture and equipment
Note 8: Trade and other payables
Note 9: Provisions
Note 10: Other liabilities
Note 11: Retained surplus
Note 12: Members' guarantee
Note 13: Cash flow information
Note 14: Financial instruments
Note 15: Director remuneration
Note 16: Auditors' remuneration
Note 17: Related party transactions
Note 18: Contingent liabilities
Note 19: Amounts guaranteed
Note 20: Assets held in trust
Note 21: Company details
Note 22: Events after the balance date

Note 1: Accounting policies

The financial report is a general purpose financial report that has been prepared in accordance with Accounting Standards, Australian Accounting Interpretations, other authoritative pronouncements of the Australian Accounting Standards Board and the *Corporations Act 2001*.

Forest & Wood Products Australia Limited is a company limited by guarantee, incorporated and domiciled in Australia.

The financial report of Forest & Wood Products Australia Limited complies with all Australian equivalents to International Financial Reporting Standards (AIFRS) in their entirety.

The following is a summary of the material accounting policies adopted by the company in the preparation of the financial report. The accounting policies have been consistently applied, unless otherwise stated.

(a) Basis of preparation

The financial report has been prepared on an accruals basis and is based on historical costs modified by the revaluation of selected non-current assets, financial assets and financial liabilities for which the fair value basis of accounting has been applied.

(b) Significant accounting estimates

The preparation of financial statements in accordance with International Financial Reporting Standards requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates and may have an impact on future periods.

(c) Comparatives

The company was incorporated on 20 August 2007. These financial statements cover the ten months from that date until 30 June 2008. Hence, there are no comparative figures.

Notes to the Financial Statements

30 June 2008

(d) Revenue

Interest revenue is recognised on a proportional basis taking into account the interest rates applicable to the financial assets.

Members' levies are recognised on advice of entitlement from the Department of Agriculture, Fisheries and Forestry (DAFF) and from State Growers' estimate of their levies payable.

Government contributions are recognised at fair value where there is reasonable assurance that the contribution will be received and all conditions will be met.

All revenue is stated net of the amount of goods and services tax (GST).

(e) Cash and cash equivalents

Cash and cash equivalents include cash on hand, deposits held at call with banks, other short-term highly liquid investments with original maturities of three months or less, and bank overdrafts. Bank overdrafts are shown within short-term borrowings in current liabilities on the balance sheet.

(f) Furniture and equipment

Each class of furniture and equipment is carried at cost or fair value less, where applicable, any accumulated depreciation and impairment losses.

Purchases of furniture and equipment are recognised initially at cost, except for purchases costing less than \$1,000, which are expensed in the year of acquisition (other than where they form part of a group of similar items which are significant in total). The cost and related accumulated depreciation on furniture and equipment sold or otherwise disposed of are removed from the accounts and any gain or loss is reported as current period's revenue or expense.

DEPRECIATION

The depreciable amount of all fixed assets is depreciated on a straight-line basis over their useful lives to the company commencing from the time the asset is held ready for use. Leasehold improvements are depreciated over the shorter of either the unexpired period of the lease or the estimated useful lives of the improvements.

THE DEPRECIATION RATES USED FOR EACH CLASS OF DEPRECIABLE ASSETS ARE:

Office equipment	13% - 27%
Leasehold improvements	20%

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at each balance sheet date.

The carrying amount of furniture and equipment is reviewed annually by directors to ensure it is not in excess of the recoverable amount from these assets. The recoverable amount is assessed on the basis of the expected net cash flows that will be received from the asset's employment and subsequent disposal. The expected net cash flows have been discounted to their present values in determining recoverable amounts.

An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount.

Gains and losses on disposals are determined by comparing proceeds with the carrying amount. These gains and losses are included in the income statement. When revalued assets are sold, amounts included in the revaluation reserve relating to that asset are transferred to retained earnings.

(g) Financial instruments

RECOGNITION AND INITIAL MEASUREMENT

Financial instruments, incorporating financial assets and financial liabilities, are recognised when the company becomes a party to contractual provisions of the instruments. Trade date accounting is adopted for financial assets that are delivered within time frames established by marketplace convention.

Financial instruments are initially measured at cost on trade date, which includes transaction costs, when the related contractual rights or obligations exist. Subsequent to initial recognition these instruments are measured as set out below.

FINANCIAL ASSETS AT FAIR VALUE THROUGH PROFIT AND LOSS

A financial asset is classified in this category if acquired principally for the purpose of selling in the short term or if so designated by management and within the requirements of AASB 139: Recognition and Measurement of Financial Instruments. Realised and unrealised gains and losses arising from changes in the fair value of these assets are included in the income statement in the period in which they arise.

HELD-TO-MATURITY INVESTMENTS

These investments have fixed maturities, and it is the company's intention to hold these investments to maturity. Any held-to-maturity investments held by the company are stated at amortised cost using the effective interest rate method.

LOANS AND RECEIVABLES

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market and are stated at amortised cost using the effective interest rate method.

AVAILABLE-FOR-SALE FINANCIAL ASSETS

Available-for-sale financial assets include any financial assets not included in the above categories. Available-for-sale financial assets are reflected at fair value. Unrealised gains and losses arising from changes in fair value are taken directly to equity.

FINANCIAL LIABILITIES

Non-derivative financial liabilities are recognised at amortised cost, comprising original debt less principal payments and amortisation.

IMPAIRMENT

At each reporting date, the company assesses whether there is objective evidence that a financial instrument has been impaired. In the case of available-for-sale financial instruments, a prolonged decline in the value of the instrument is considered to determine whether an impairment has arisen. Impairment losses are recognised in the income statement.

(h) Trade payables

Trade and other payables are stated at cost, which approximates fair value due to the short-term nature of these liabilities.

(i) Employee benefits

Provision is made for the company's liability for employee benefits arising from services rendered by employees to balance date. Employee benefits that are expected to be settled within one year have been measured at the amounts expected to be paid when the liability is settled, plus related on-costs.

Employee benefits payable later than one year have been measured at present value of the estimated future cash outflows to be made for those benefits.

LONG SERVICE LEAVE

The liability for long service leave is recognised in the provision for employee benefits and measured as the present value of expected future payments to be made in respect of services provided by employees up to the reporting date. Consideration is given to expected future wage and salary levels, experience of employee departures, and periods of service. Expected future payments are discounted using market yields at the reporting date on national government bonds with terms to maturity and currencies that match, as closely as possible, the estimated future cash outflows.

Notes to the Financial Statements

30 June 2008

SUPERANNUATION

Employees of the company are members of the Australian Government Employees Superannuation Trust (AGEST), State Super Financial Service (SSFS), and Equipsuper. Contributions are made by the company employee superannuation funds and are charged as expenses when incurred.

(j) Provisions

Provisions are recognised when the company has a legal or constructive obligation as a result of a past event and it is probable that an outflow of economic benefits will be required to settle the obligation and a reliable estimate of the amount of the obligation can be made. If the effect is material, provisions are determined by discounting the expected future cash flows using a current pre-tax rate that reflects, where appropriate, the risks specific to the liability.

(k) Goods and Services Tax (GST)

Revenues, expenses and assets are recognised net of the amount of GST, except where the amount of GST incurred is not recoverable from the Australian Taxation Office. In these circumstances the GST is recognised as part of the cost of acquisition of the asset or as part of an item of the expense. Receivables and payables in the balance sheet are shown inclusive of GST.

Cash flows are presented in the cash flow statement on a gross basis, except for the GST component of investing and financing activities, which are disclosed as operating cash flows.

(l) Leases

Leases are classified as finance or operating leases. A lease that transfers substantially all of the benefits and risks incidental to the ownership of property is classified as a finance lease. All other leases are accounted for as operating leases wherein rental payments are expensed as incurred. The company does not have any finance leases.

Lease payments for operating leases, where substantially all of the risks and benefits remain with the lessor, are charged as expenses in the periods in which they are incurred.

Lease incentives under operating leases are recognised as a liability and amortised on a straight-line basis over the life of the lease term.

(m) Impairment of assets

The company monitors the recoverability of assets, based on factors such as current market value, future asset utilisation, business climate and future undiscounted cash flows expected to result from the use of the related assets. The company's policy is to record an impairment loss in the period when it is determined that the carrying amount of the asset may not be recoverable. The impairment loss is calculated as the amount by which the carrying amount of the asset exceeds the undiscounted estimate of future cash flows from the asset. To 30 June 2008, no impairment losses have been recorded.

Where it is not possible to estimate the recoverable amount of an individual asset, the company estimates the recoverable amount of the cash-generating unit to which the asset belongs.

(n) Income taxes

No provision for income tax has been raised as the company is exempt from income tax under Division 50 of the *Income Tax Assessment Act 1997*.

(o) Rounding of amounts

The company has applied the relief available to it under ASIC Class Order 98/0100 and accordingly, amounts in the financial report and directors' report have been rounded off to the nearest \$1.

Note 2: Revenue

	NOTE	2008 \$
(A) REVENUE BREAK-UP		
Commonwealth matching		3,407,188
Industry contributions	2(B)	4,276,593
Total revenue		7,683,781
(B) INDUSTRY CONTRIBUTIONS		
Processors		2,622,744
Importers		882,008
Compulsory growers		245,107
Voluntary growers		515,922
Penalties		10,812
Total industry contributions		4,276,593
(C) OTHER REVENUE		
Bank interest received		473,468
Industry project contributions		136,951
Others		4,142
Total other revenue		614,561

Note 3: Expenses

EMPLOYEE BENEFITS EXPENSE		
Wages and salaries		555,231
Annual leave		(21,658)
Long service leave		(12,803)
Superannuation contributions		189,418
Payroll tax		19,343
Total employee benefits expense		729,531
RESEARCH & DEVELOPMENT PROJECT COSTS		
Market knowledge & development		2,793,634
Sustainable forest management		649,846
Resource characterisation & improvement		825,515
Manufacturing & products		693,000
Service & capabilities		632,121
Total research & development project costs		5,594,116
OTHER EXPENSES INCLUDE		
Rental expense on operating leases minimum lease payments		40,188

Note 4: Cash and cash equivalents

Cash on hand	200
Cash at bank	945,923
Short-term bank deposits	5,600,000
Total cash and cash equivalents	6,546,123

The effective interest rate on short-term bank deposits was 7.7 per cent; these deposits have an average maturity of 69 days.

Notes to the Financial Statements

30 June 2008

Note 5: Trade and other receivables

	2008 \$
CURRENT	
Commonwealth contributions	815,329
Levies receivable	276,142
Interest receivable	54,407
GST receivable	6,553
Total trade and other receivables	1,152,431

Note 6: Other financial assets

Held to maturity investment: long-term bank deposits	4,562,610
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Note 7: Furniture and equipment

FURNITURE AND EQUIPMENT	
OFFICE EQUIPMENT	
At cost	122,627
Less accumulated depreciation	(94,951)
Total office equipment	27,676
IMPROVEMENTS	
At cost	140,365
Less accumulated depreciation	(543)
Total improvements	139,822
Total furniture and equipment	167,498

(A) MOVEMENTS IN CARRYING AMOUNTS

	OFFICE EQUIPMENT \$	IMPROVEMENTS \$	TOTAL \$
Balance at 20 August 2007	—	—	—
Additions	19,919	140,365	160,284
Transfers	15,301	—	15,301
Depreciation amortisation and impairments expense	(7,544)	(543)	(8,087)
Carrying amount at the end of period	27,676	139,822	167,498

Note 8: Trade and other payables

CURRENT	
Trade payables	100,115
Employee benefits	41,865
Total trade payables and employee benefits	141,980
OTHER PAYABLES & ACCRUALS	
Audit fee	9,000
Legal fees	1,575
PAYG tax & FBT (BAS)	22,123
Relocation – moving costs	4,562
Salaries and wages	4,549
Accrued superannuation	470
Payroll tax	19,343
Total other payables & accruals	61,622
Total trade and other payables	203,602

Note 9: Provisions

	MAKE GOOD OF PREMISES \$	LONG-TERM EMPLOYEE BENEFITS \$	TOTAL \$
Balance at 20 August 2007	—	—	—
Transferred in	—	57,102	57,102
Additional provisions	24,500	35,931	60,431
Amounts used	—	(48,735)	(48,735)
Balance at 30 June 2008	24,500	44,298	68,798

The number of employees at 30 June 2008 was 7.

ANALYSIS OF TOTAL PROVISIONS		
Current		50,526
Non-current		18,272
Total provisions		68,798

Note 10: Other liabilities

CURRENT	
Lease incentive liability	6,000
NON-CURRENT	
Lease incentive liability	24,000

Note 11: Retained surplus

The retained surplus records the surplus of \$11,146,331 of assets over liabilities transferred into the company from its predecessor, Forest and Wood Products Research and Development Corporation (FWPRDC).

The provisions contained within the *Forestry Marketing and Research & Development Services (Transitional and Consequential Provisions) Act 2007*, coupled with the company's Statutory Funding Agreement with the Commonwealth, dated 3 September 2007, has established Forest & Wood Products Australia Limited (FWPA) as the forest industry services body. Associated declarations by the Commonwealth Minister for Agriculture, Fisheries and Forestry had led to FWPA becoming the successor in law to the assets and liabilities of FWPRDC. The transfer of the substantial net asset of FWPRDC occurred on 3 September 2007.

Additionally, as of 3 September 2007, the Agreement with the Commonwealth has led to FWPA also becoming the recipient of forest industry levies collected under the *Forestry Marketing and Research and Development Services (Transitional and Consequential Provisions) Act 2007*.

Note 12: Members' guarantee

The company is limited by guarantee. If the company is wound up, the Constitution states that each member is required to contribute a maximum of \$1 each towards any outstanding obligations of the company. At 30 June 2008 the number of members was 35.

Notes to the Financial Statements

30 June 2008

Note 13: Cash flow information

RECONCILIATION OF CASH FLOW FROM OPERATIONS WITH PROFIT AFTER INCOME TAX

Net income/loss for the period	979,931
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NON-CASH FLOWS IN PROFIT

Depreciation, amortisation and impairments	8,087
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CHANGES IN ASSETS AND LIABILITIES, NET OF THE EFFECTS OF TRANSFERS OF OPERATIONS

(Increase)/decrease in trade and term receivables	4,034,320
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Increase/(decrease) in trade payables and accruals	116,448
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Increase/(decrease) in employee provisions	(26,991)
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Cashflow from operations	5,111,795
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Note 14: Financial instruments

(a) Financial Risk Management Policies

The company's financial instruments consist mainly of deposits with banks, short-term investments, bills, accounts receivable and accounts payable.

Forest & Wood Products Australia Limited does not have any derivative financial instruments at 30 June 2008.

(i) Treasury Risk Management

The Audit and Finance Committee consisting of senior directors meet on a regular basis to analyse financial risk exposure and to evaluate treasury management strategies in the context of the most recent economic conditions and forecasts.

(ii) Financial Risk Exposures and Management

The main risks the company is exposed to through its financial instruments are interest rate risk, liquidity risk and credit risk.

INTEREST RATE RISK

Interest rate risk relates to the cash deposits at Commonwealth Bank of Australia (a AAA-rated financial institution). During the year, interest rates moved up by approximately 1.5 percentage points.

On an average deposit of \$6 million, the carefully managed Bank Bills and Term Deposits which varied in terms from 30 to 120 days, earned an extra \$90,000. A poorly managed scenario would have been locking all the funds on 1 July 2007 for 12 months or more and missing out on the interest rate increases.

The forecast by the market for 2008-2009 is for another interest rate increase in the first half year with an interest rate cut in the second half.

FOREIGN CURRENCY RISK

The company is not exposed to fluctuations in foreign currencies.

LIQUIDITY RISK

The company manages liquidity risk by monitoring forecast cash flows. The extent of exposure to liquidity risk is the carrying amounts of the liabilities and commitments as indicated in the Balance Sheet and Commitments schedule.

Trade and other payables will be settled between 21 to 30 days as per creditors terms. Employee leave will be settled as and when they fall due or when employment is terminated. The company does not foresee any difficulty in meeting its financial liabilities.

CREDIT RISK

The maximum exposure to credit risk, excluding the value of any collateral or other security, at balance date to

recognised financial assets is the carrying amount, net of any provisions for impairment of those assets, as disclosed in the balance sheet and notes to the financial statements.

The company does not have any material credit risk exposure to any single receivable or group of receivables under financial instruments entered into by the company.

Levies and matching payments receivable are guaranteed by Commonwealth Legislation. All receivables are aged less than 30 days and are expected to be settled within the 14 or 28 days invoice term. There are no material amounts of collateral held as security at 30 June 2008.

PRICE RISK

The company is not exposed to any material commodity price risk.

(b) Financial instruments

(i) Financial instrument composition and maturity analysis

The company's exposure to interest rate risk, which is the risk that a financial instruments value will fluctuate as a result of changes in market interest rates and the effective weighted average interest rates on classes of financial assets and financial liabilities, is as follows:

	Weighted average effective interest rate 2008 %	Floating interest rate 2008 \$	Maturing within 1 year 2008 \$	Non-interest bearing 2008 \$	Total 2008 \$
FINANCIAL ASSETS					
Cash and cash equivalents	7.30	945,923	5,600,000	200	6,546,123
Long term deposits	7.74	—	4,562,610	—	4,562,610
Receivables	—	6,553	—	1,145,878	1,152,431
Total financial assets	—	952,476	10,162,610	1,146,078	12,261,164
FINANCIAL LIABILITIES					
Trade and sundry payables	—	—	—	203,602	203,602
Total financial liabilities	—	—	—	203,602	203,602

All payables and receivables are expected to mature in less than six months. Long-term deposits amount to \$31,773 and are expected to mature in six months to one year. The remaining long-term deposits are expected to mature in less than six months.

(ii) Net fair values

For financial assets and liabilities the net fair value is equal to their carrying values. No financial assets or financial liabilities are readily traded on organised markets in standardised form.

The aggregate net fair values and carrying amounts of financial assets and financial liabilities are disclosed in the balance sheet and in the notes to the financial statements.

Aggregate net fair values and carrying amounts of financial assets and financial liabilities at balance date of 30 June 2008:

	Total carrying amount	Aggregate net fair value
FINANCIAL ASSETS		
Cash and cash equivalents	6,546,123	6,546,123
Held-to-maturity financial assets	4,562,610	4,562,610
Receivables	1,152,431	1,152,431
Total financial assets	12,261,164	12,261,164
FINANCIAL LIABILITIES		
Other liabilities	203,602	203,602
Total financial liabilities	203,602	203,602

Notes to the Financial Statements

30 June 2008

(iii) Sensitivity analysis

The company has performed a sensitivity analysis relating to its exposure to interest rate risk at balance date. This sensitivity analysis demonstrates the effect on the current year results and equity which could result from a change in these risks.

At 30 June 2008, the effect on profit and equity as a result of changes in the interest rate, with all other variables remaining constant would be as follows:

CHANGE IN PROFIT	
Increase in interest rate by 1%	90,000
Decrease in interest rate by 1%	(90,000)
CHANGE IN EQUITY	
Increase in interest rate by 1%	90,000
Decrease in interest rate by 1%	(90,000)

Note 15: Director remuneration

Amounts received, or due and receivable, by directors	382,347
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The names of directors who have held office during the period are detailed in the directors report.

THE NUMBER OF DIRECTORS WHOSE REMUNERATION WAS WITHIN THE FOLLOWING BANDS ARE:	
\$ 0 - \$19,999	7
\$20,000 - \$39,999	1
\$270,000 - \$289,999	1
Total	9

Note 16: Auditors' remuneration

REMUNERATION OF THE AUDITOR OF THE COMPANY FOR:	
Auditing the financial report	9,000
Other services	3,000

Note 17: Related party transactions

Transactions between related parties are on normal commercial terms and conditions no more favourable than those available to other parties unless otherwise stated.

Transactions with related parties were directors' remuneration, as disclosed in note 15.

Note 18: Contingent liabilities

At 30 June 2008, the company had no contingent liabilities.

Note 19: Amounts guaranteed

The company has issued a guarantee in the amount of \$31,773 in favour of Parkside Properties Pty Ltd with respect to an agreement for leased premises at Level 4, 10-16 Queen Street, Melbourne. The guarantee is held in term deposit with Commonwealth Bank of Australia.

Note 20: Assets held in trust

Russell Grimwade Prize Trust
Donations and Bequests Research Trust Account

Donations and bequests for specified research purposes are received from the public under formal trust arrangements. Monies received are placed in a special bank account and expended on the specified research projects in accordance with the terms of the trusts. The company took over control of the trust monies from Forest and Wood Products Research and Development Corporation on 3 September 2007. These monies are not available for other purposes of the company and are not recognised in the financial statements.

OPENING BALANCE AT 3 SEPTEMBER 2007	192,519
Add: interest earned	6,388
Less: payments	-
Closing balance as at 30 June 2008	198,907

Note 21: Company details

The registered office of the company is:
Forest & Wood Products Australia Limited
Level 4, 10 Queen Street
Melbourne Victoria 3000

Note 22: Events after the balance date

No events have occurred since 30 June 2008 which would significantly affect the operations of the company.

Auditors Independence Declaration



WHK Horwath

Forest & Wood Products Australia Limited

A.C.N. 127 114 185

Auditors Independence Declaration under Section 307C of the Corporations Act 2001

declare that, to the best of my knowledge and belief, during the year ended 30 June 2008 there have been:

- (i) no contraventions of the auditor independence requirements as set out in the Corporations Act 2001 in relation to the audit; and
- (ii) no contraventions of any applicable code of professional conduct in relation to the audit.

WHK Horwath Melbourne

Peter Hinton
Partner

28 August 2008

Total Financial Solutions

A WHK Group Firm

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Forest & Wood Products Australia Limited

A.C.N. 127 114 188

Independent Audit Report to the members of Forest & Wood Products Australia Limited

Report on the Financial Report

We have audited the accompanying financial report of Forest & Wood Products Australia Limited, which comprises the balance sheet as at 30 June 2008, and the income statement, statement of recognised income and expenditure and cash flow statement for the period ended that date, a summary of significant accounting policies, other explanatory notes and the directors' declaration.

Directors' Responsibility for the Financial Report

The directors of the company are responsible for the preparation and fair presentation of the financial report in accordance with Australian Accounting Standards (including the Australian Accounting Interpretations) and the Corporations Act 2001. This responsibility includes: designing, implementing and maintaining internal control relevant to the preparation and fair presentation of the financial report that is free from material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies; and making accounting estimates that are reasonable in the circumstances.

Auditor's Responsibility

Our responsibility is to express an opinion on the financial report based on our audit. We conducted our audit in accordance with Australian Auditing Standards. Those Auditing Standards require that we comply with relevant ethical requirements relating to audit engagements and plan and perform the audit to obtain reasonable assurance whether the financial report is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial report. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial report, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the company's preparation and fair presentation of the financial report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the directors, as well as evaluating the overall presentation of the financial report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Independence

In conducting our review, we have complied with the independence requirements of the Corporations Act 2001.

Robert Alexander Soderstrom

As WHK Group Chair

WHK Horwath Melbourne 404 Collins Street
Level 1, 605 Victoria Street, Melbourne, Victoria 3000 Australia
PO Box 257 St Leonards NSW 1585
Telephone: 61 5 9420 7400 Facsimile: 61 5 9420 7444
Email: ahs@whkhorwath.com.au www.whkhorwath.com.au

Independent Audit Report

Forest & Wood Products Australia Limited

A.C.N. 127 114 185

Independent Audit Report to the members of Forest & Wood Products Australia Limited

Auditor's Opinion

In our opinion the financial report of Forest & Wood Products Australia Limited is in accordance with the Corporations Act 2001, including:

- (a) giving a true and fair view of the company's financial position as at 30 June 2008 and of its performance for the year ended on that date; and
- (b) complying with Australian Accounting Standards (including the Australian Accounting Interpretations) and the Corporations Regulations 2001.

WHL Horwath Melbourne



Peter Sexton
Partner

28 August 2008

APPENDIX

2007-08 RESEARCH PROJECTS

PROGRESS DESCRIPTION	PROJECT NO.	PROJECT DESCRIPTION	FWPA BUDGET \$	TOTAL PROJECT BUDGET * \$
<p>LEGEND:</p> <p>* Total project budget as per contract agreement for initiated and active projects; actual total project expenditure as per audited final financial report for completed projects</p> <p># Project initiated and completed within the financial year</p>				

1. Market Knowledge & Development (MKD) – now Market Access & Development

Initiated	PN08.1061	<p>Title: Guidelines for verification of structural timber properties</p> <p>Research Provider: Australian Plantation Products & Paper Industry Council</p> <p>Objective: To develop and document generic procedures for verifying structural timber property compliance that can be used by large and small size producers and will be applicable to all types of stress-graded timber products, including grading methods yet to be applied commercially in Australia.</p>	126,000	144,000
Initiated	PN08.1065	<p>Title: Strategy for large span second storey timber and wood products</p> <p>Research Provider: Timber Development Association (NSW) Ltd</p> <p>Objective: To reduce the use of non-wood beams used in single family housing in favour of timber and wood-based products.</p>	62,500	77,500
Initiated	PN08.1068	<p>Title: Pine timber roof environments in Western Australia and its susceptibility to European House Borer</p> <p>Research Provider: Department of Agriculture and Food WA</p> <p>Objective: To test if European House Borer beetles can initiate and sustain infestations in untreated pine framing in roof spaces under Perth climatic conditions.</p>	600,500	1,682,500
Initiated	PN08.1069	<p>Title: Technical resources program – supporting CPD, tertiary and trade education and training (TRP)</p> <p>Research Provider: TPC Solutions Pty Ltd</p> <p>Objective: To develop and introduce timber educational resources that will be used to educate practising professionals within the fields of architecture, engineering and building regarding timber and wood-based products.</p>	700,000	1,400,000
Initiated	PN08.1070	<p>Title: Reducing fire regulatory barriers and standards on timber and wood products</p> <p>Research Provider: TDA NSW</p> <p>Objective: To reduce the fire regulatory and standard barriers imposed on timber and wood products used in commercial building applications and bushfire construction. The outcome of the project will be a greater acceptance of timber and wood-based products in the building regulations and consequently increase the consumption of timber and wood-based products.</p>	703,550	962,550
Initiated [#]	PR08.1062	<p>Title: Guide to the specification, installation and use of preservative treated engineered wood products</p> <p>Research Provider: Holmes McLeod Consulting Engineers Pty Ltd</p> <p>Objective: To provide a user-friendly and informative guide for the best practice selection, preservative treatment, design, installation and finishing of EWPs to ensure product fitness for purpose and performance over a range of applications, hazard exposures, and design lives.</p>	63,000	63,000
Initiated [#]	PR08.1063	<p>Title: Modernising timber paling fence design</p> <p>Research Provider: TPC Solutions Pty Ltd</p> <p>Objective: Investigate and understand key attributes that make timber paling fences more desirable to fencing contractors, gauge the importance of cost in fencing selection issues, determine how well timber fencing competes on life expectancy, aesthetics, and maintenance requirements, whilst noting that ease of fence construction and the utilisation of low quality wood must be key considerations in the optimum solution.</p>	31,520	42,520
Initiated	PR08.1064	<p>Title: Future development processes for Australian timber standards</p> <p>Research Provider: Holmes McLeod Consulting Engineers Pty Ltd</p> <p>Objective: 1) Analysis of current National Standards system; 2) Key views of industry; 3) Analysis of options; 4) Key components/priorities of a future standards development program.</p>	74,370	74,370
Initiated	PR08.1066	<p>Title: Carbon in timber within a national emissions trading scheme – methodologies and mechanisms</p> <p>Research Provider: Australian Plantation Products & Paper Industry Council</p> <p>Objective: To review existing and proposed methodologies for inclusion of carbon stored in timber under emissions trading schemes and discuss mechanisms for inclusion of wood products as legitimate carbon offsets.</p>	45,000	60,000
Initiated [#]	PR08.1067	<p>Title: Vegetation fuel load – site assessment methodology AS3959</p> <p>Research Provider: Bushfire and Environmental Service Pty Ltd</p> <p>Objective: To develop a simple procedure in a form ready for adoption by the Standards Committee finalising AS3959.</p>	6,900	6,900

PROGRESS DESCRIPTION	PROJECT NO.	PROJECT DESCRIPTION	FWPA BUDGET \$	TOTAL PROJECT BUDGET * \$
Initiated	PR08.1071	Title: Development of Australian life cycle assessment methodology for timber building products Research Provider: TDA NSW Objective: To co-ordinate the development of a research strategy, technical submissions and an industry position to resolve a number of key parameters of life cycle assessment methodology of wood products.	73,000	73,000
Initiated	PR08.1072	Title: Standard timber profile review – Part 2 Research Provider: Timber and Building Materials Association Objective: 1) Update the existing profile book; 2) Seek further agreement and confirmation from major manufacturers in Australia and overseas, and refine the finished dimensions of dressed timber and profiles products; 3) Seek further agreement from all industry sectors to use the standard sizes and profiles of commonly milled products; 4) Seek agreement from industry to include new products and information.	19,000	29,000
Initiated ^d	WP08.6000	Title: Development of wood promotion program Research Provider: Osborn & Partners Pty Ltd Objective: Independent consumer research associated with the development of the wood promotion campaign.	628,000	628,000
Completed	PN04.1010	Title: Sound and fire rated timber system market development Research provider: Timber Development Association (NSW) Ltd	450,000	830,845
Completed	PN05.1018	Title: Modelling of business processes in the adaptation of microwave wood bending technology in the furniture industry Research provider: IWM Centre Management Ltd	148,000	403,181
Completed	PN05.1023	Title: Timber framed domestic construction Research provider: Timber Queensland Ltd	229,500	352,102
Completed	PN05.1025	Title: Technical development of Australian timber and building regulations Research provider: Timber Development Association (NSW) Ltd	580,000	783,494
Completed	PN06.1031	Title: To conform the forest valuation standard of May 2004 Research provider: Association of Consulting Foresters of Australia	60,000	77,750
Completed	PN06.1032	Title: Technical resources program – supporting timber education and training Research provider: TPC Solutions Pty Ltd	686,500	1,374,737
Completed	PN06.1037	Title: The effect of post-treatment machining on the fire-test performance of Chemco FRX treated Western Red Cedar Research provider: Timber and Building Materials Association	50,500	75,000
Completed	PN07.1045	Title: Australian market requirements for western red cedar and Douglas fir Research provider: Thorlynnne Pty Ltd	85,000	136,730
Completed	PN07.1048	Title: Construction techniques and building material purchasing decisions of Australia's top 20 home builders Research provider: Timber Queensland Ltd	77,000	145,600
Completed	PN07.1052	Title: Design for durability – technology transfer Research provider: Timber Queensland Ltd	162,900	240,100
Completed	PN07.1055	Title: Chain of custody 'how to': Implementation advice and assistance Research provider: Wood Products Victoria	49,700	49,700
Completed	PR06.1036	Title: Australian participation in the ISO TC 165 Research provider: Standards Australia	120,545	135,545
Completed	PR07.1050	Title: Methods for comparing the biodiversity impacts of timber and other building materials Research Provider: University of Tasmania	40,000	60,000
Completed	PR07.1059	Title: Impact of carbon trading on timber products Research Provider: Monash University	68,000	63,000
Ongoing	PN04.1009	Title: No bills and best five star houses Research Provider: University of Tasmania	286,000	586,000
Ongoing	PN05.1016	Title: New JIS mark accreditation criteria for wood panels manufacturers Research Provider: Australian Wood Panels Association	60,000	129,330
Ongoing	PN06.1035	Title: Forest & Wood Product statistical services Research Provider: Australian Bureau of Agricultural and Resource Economics	378,788	739,576
Ongoing	PN06.1039	Title: Development of visual grading rules for recycled timber Research Provider: Timber Queensland Ltd	80,000	183,720
Ongoing	PN07.1044	Title: Life cycle assessment of timber products – phase 2 Research Provider: CSIRO Sustainable Ecosystems	729,000	1,221,000
Ongoing	PN07.1046	Title: Specification guide for timber windows Research Provider: University of Tasmania	120,000	280,000
Ongoing	PN07.1049	Title: Timber flooring – advanced research into floor performance issues Research Provider: Timber Queensland Ltd	182,610	311,830
Ongoing	PN07.1051	Title: Contemporary sound and fire-rated timber framed construction practices for low-rise building (residential and commercial) Research Provider: TDA NSW	350,000	500,000
Ongoing	PN07.1053	Title: Innovative engineered timber building systems for non-residential applications Research Provider: University of Technology Sydney	300,000	629,772
Ongoing	PN07.1054	Title: New applications of timber in non-traditional market segments, high-rise residential and non-residential (commercial) buildings Research Provider: Scion	97,950	185,900

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Ongoing	PN07.1056	Title: Assessing the ability of a large-scale fire test to predict the performance of wood poles exposed to bushfires and the ability of fire protective formulations to reduce loss of wood poles exposed to severe bushfires Research Provider: Energy Networks Association	60,000	167,000
Ongoing	PN07.1058	Title: Dynamics of carbon stocks in timber in Australian housing Research Provider: University of Melbourne (Forestry)	210,000	384,852
Ongoing	PN07.1060	Title: Wood recovery and recycling – a source book for Australia Research Provider: CSIRO Forest Biosciences	61,558	232,645
Ongoing	PR06.1040	Title: TimberDesign Australasia Research Provider: Neilson Publishing Limited	120,000	120,000
Ongoing	PR07.1057	Title: Stage 1 revision of AS1720 and AS/NZS4063 Research Provider: Timber Built Pty Ltd	259,270	259,270

2. Manufacturing & Products (MP) - now Products & Processing

Initiated	PN08.2047	Title: Evaluation of super-heated steam vacuum drying viability and development of a predictive drying model for Australian commercial hardwood species Research Provider: Queensland Department of Primary Industries Objective: To establish the viability of vacuum drying for high commercial volume Australian hardwood species in terms of drying quality, time and cost. From the wood and drying properties measured from drying trials, an industry applicable predictive super-heated steam vacuum drying model using fundamental principles combined with modelling software will be developed. The model will predict drying schedules and drying time dependent on the sensitivity of intrinsic wood properties and drying characteristics.	296,000	608,000
Completed	PN02.3705	Title: Cooperative Research Centre for Innovative Wood Manufacturing (IWM) Research Provider: IWM Centre Management Ltd	900,000	26,702,000
Completed	PN04.2006	Title: Commercial products from bio-active extractives in cypress milling residues Research Provider: Forestry Research, Agency for Food & Fibre Science	170,000	439,421
Completed	PN05.2016	Title: Comparison of sawn recovery and efficiencies of radial and linear multi-saw sawing Research Provider: CSIRO–FFP: Forestry and Forest Products	55,000	158,497
Completed	PN06.2028	Title: Wood quality initiative (2) Research Provider: WQI Ltd	517,832	517,832
Completed	PN07.2045	Title: Moisture meter corrections for ACQ treated pine Research Provider: CSIRO	25,000	35,598
Completed	PR08.2046	Title: Economic benefits from sawmill residues Research Provider: The Carnot Group Pty Ltd Objective: To review and update document R-values for timber framed building elements.	49,140	49,140
Ongoing	PN05.2015	Title: Durability of isocyanate-based adhesives in engineered wood products Research Provider: CSIRO Forest Biosciences	900,000	1,728,572
Ongoing	PN05.2019	Title: Measurement of formaldehyde and other emissions from wood panels using the 1m ³ chamber and desiccator test methods Research Provider: Australian Wood Panels Association	150,000	314,000
Ongoing	PN06.2032	Title: Prevention of nailplate tooth withdrawal in plated timber trusses Research Provider: CSIRO Sustainable Ecosystems	250,000	742,000
Ongoing	PN07.2034	Title: Inspections of model timber window decay test Research Provider: CSIRO Forest Biosciences	38,000	80,700
Ongoing	PN07.2035	Title: Assessing the decay resistance of preservative treated glulam before and after gluing Research Provider: CSIRO Forest Biosciences	75,000	154,800
Ongoing	PN07.2037	Title: Impact of sapwood on the properties and market utilisation of plantation and young hardwoods Research Provider: University of Tasmania	240,000	486,220
Ongoing	PN07.2038	Title: Selected strength and stiffness predictors from in-line systems and vibrational analysis devices using chemometrical tools for structural grading of slash pine and radiata pine Research Provider: Queensland Department of Primary Industries & Fisheries	235,000	450,000
Ongoing	PN07.2039	Title: Accelerated H3 decay testing Research Provider: CSIRO Forest Biosciences	225,000	477,000
Ongoing	PN07.2041	Title: Locating resin shakes in slash pine billets using microwave transmission tomography – laboratory scale trial Research Provider: CSIRO Forest Biosciences	85,520	170,520
Ongoing	PN07.2043	Title: VOC emissions from engineered wood products Research Provider: CSIRO Forest Biosciences	60,000	88,200
Ongoing	PR07.2044	Title: GLTAA risk management framework Research Provider: Glued Laminated Timber Association of Australia Pty Ltd	66,500	92,500

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3. Resource Characterisation & Improvement – now Sustainability & Resources

Initiated	PN08.3028	Title: Compromised wood Research Provider: University of Canterbury, New Zealand Objective: Compromised wood is a wood quality oriented initiative from Canterbury University, New Zealand, led by Dr John Walker. It is focused on fundamental aspects of understanding how non-cellulosic polysaccharides (hemi-celluloses) affect biomechanical processes with the aim of linking them to poor quality pine and identifying forest and mill practices which can be used to manipulate and sort wood quality to achieve measurable improvements in efficiency, productivity and ultimately structural quality of radiata pine (primarily from NZ).	75,000	75,000
Initiated	PN08.3029	Title: Managing subtropical pines for improved wood production based on a better understanding of genetics, silviculture, environment and their interactions Research Provider: Forestry Plantations Queensland Objective: To explore ways of increasing plantation profitability while maintaining or enhancing volume production. The project will benefit the growing and processing sectors by improving decision making for alternative genetic and silviculture strategies.	340,000	340,000
Completed	PN03.1915	Title: An advanced genetic evaluation system for forest tree improvement (TREEPLAN®) Research Provider: Southern Tree Breeding Association	433,680	1,268,689
Completed	PN03.3907	Title: A decision support system for maximising profit from mid-rotation management of radiata pine Research Provider: CSIRO Forest Biosciences	511,240	2,069,392
Completed	PN04.3007	Title: Determining the economics of processing plantation eucalypts for solid timber products Research Provider: University of Tasmania	167,500	368,563
Completed	PN06.3016	Title: Resource characterisation of slash pine plantation wood quality Research Provider: Queensland Department of Primary Industries & Fisheries	200,000	425,385
Completed	PN06.3017	Title: Improving dimensional stability in plantation-grown <i>E. pilularis</i> and <i>E. dunnii</i> Research Provider: Southern Cross University	153,895	153,858
Completed	PN07.3018	Title: Sorting plantation <i>eucalyptus nitens</i> logs with acoustic wave velocity for structural and appearance timber production Research Provider: CRC Forestry Limited	40,000	96,077
Completed	PN07.3019	Title: <i>E. nitens</i> thinning and spacing trials for wood property assessment, harvest and processing trials Research Provider: CRC Forestry Limited	20,000	20,000
Completed	PN07.3020	Title: Hoop pine resource evaluation (resource and processing properties of <i>Araucaria cunninghamii</i>) Research Provider: Ensis	180,094	321,601
Completed	PN07.3022	Title: Evaluation of wood characteristics of tropical post mid-rotation plantation <i>Eucalyptus cloeziana</i> and <i>E. pellita</i> Research Provider: Queensland Department of Primary Industries	100,000	440,000
Completed	PN07.3023	Title: Optimal deployment of genetic gains in wood quality across southern Australian pine plantations (Phase 1) Research Provider: CSIRO	40,000	225,178
Ongoing	PN03.1916	Title: Juvenile wood initiative Research Provider: CSIRO Forest Biosciences	1,310,000	4,293,950
Ongoing	PN06.3015	Title: The effect of thinning on wood quality and solid wood product recovery in regrowth forests Research Provider: CSIRO Forest Biosciences	203,000	571,522
Ongoing	PN07.3024	Title: The hottest 100: improving pulp yield of plantation eucalypts by gene printing Research Provider: CSIRO Forest Biosciences	393,182	988,185
Ongoing	PN07.3025	Title: Standing tree measurement of acoustic velocity as a predictor of kraft pulp yield in <i>E. nitens</i> across two sites Research Provider: CSIRO Forest Biosciences	43,230	283,405
Ongoing	PN07.3026	Title: Development of the director PH330 harvesting head Research Provider: Fibre-Gen Instruments Ltd	150,000	15,000
Ongoing	PN07.3027	Title: Field-based application of NIR as a predictor of pulp quality across site and species Research Provider: CSIRO Forest Biosciences	328,500	701,500
Ongoing	PR07.3021	Title: Comparison of solid wood quality and mechanical properties from three species and nine provenances of eucalypts grown in clearwood regimes across southwest Western Australia Research Provider: CSIRO Forest Biosciences	30,000	140,500

4. Sustainable Forest Management (SFM) – now Sustainability & Resources

Initiated [#]	PR08.4034	Title: Genetic architecture of <i>Eucalyptus globulus</i> for breeding and deployment Research Provider: Southern Tree Breeding Association Objective: To provide a genetic resource for <i>Eucalyptus globulus</i> using eight fully pedigreed (diallel) field trials and to determine the relative importance of additive and non-additive genetic effects for commercially important genetic traits.	60,000	153,623
Completed	PN07.4023	Title: Commercial model to assess pruning and thinning options in eucalypt plantations for appearance grade products Research Provider: MBAC Consulting Pty Ltd	120,000	263,425
Completed	PR07.4022	Title: Comparative analysis of forest practices globally Research Provider: Australian National University	50,000	190,000
Completed	PN07.4025	Title: Genetic gain optimisation in tree breeding (MATEPLAN™) and deployment (SEEDPLAN™) Research Provider: Southern Tree Breeding Association	150,000	465,926

PROGRESS DESCRIPTION	PROJECT NO.	PROJECT DESCRIPTION	FWPA BUDGET \$	TOTAL PROJECT BUDGET * \$
Completed	PR07.4031	Title: Forest and Timber Bureau – CSIRO Arboreta program Research Provider: Southern Tablelands Farm Forestry Network	30,000	80,000
Ongoing	PN04.4009	Title: Predicting and managing the impacts of commercial plantations on catchment water balances Research Provider: University of Melbourne (Forestry)	250,000	500,000
Ongoing	PN06.4011	Title: The variable retention harvest system Research Provider: Australian National University	100,000	244,650
Ongoing	PN06.4013	Title: Introduction of a parasitoid/s for the biocontrol of pine aphid in south-eastern Australia Research Provider: South Australian Research and Development Institute	598,708	1,455,771
Ongoing	PN06.4014	Title: Quantifying plantation water use in the Green Triangle Research Provider: CSIRO Forest Biosciences	187,222	754,547
Ongoing	PN06.4015	Title: CRC Forestry Research Provider: CRC Forestry Limited	700,000	700,000
Ongoing	PN06.4018	Title: JVAP 2005-2009 Research Provider: Rural Industries Research & Development Corporation	400,000	4,200,000
Ongoing	PN07.4020	Title: Socio-economic impacts of land-use change in the Green Triangle and Central Victoria Research Provider: CRC Forestry Limited	40,000	489,516
Ongoing	PN07.4021	Title: Climate change and Australia's plantation estate: risks and management to mitigate impacts Research Provider: CSIRO Forest Biosciences	180,711	432,538
Ongoing	PN07.4026	Title: Breeding radiata to maximise profits by incorporating risk traits Research Provider: CSIRO Forest Biosciences	98,023	435,495
Ongoing	PN07.4027	Title: Review of alternative pine species for low-rainfall zones of Australia Research provider: University of Queensland	75,000	218,500
Ongoing	PN07.4030	Title: Decision support for water use efficient plantation management and wood production (1. Managing plantations to increase wood yields and water-use efficiency) Research Provider: CSIRO Forest Biosciences	94,600	187,600
Ongoing	PN07.4032	Title: Mapping leaf chemistry using hyperspectral satellite images Research Provider: CSIRO Forest Biosciences	60,000	119,925
Ongoing	PN07.4033	Title: Growth predictions in private spotted gum dominant forests in Queensland and NSW Research Provider: Queensland Department of Primary Industries & Fisheries	225,424	884,493
Ongoing	PR07.4028	Title: The impact of plantations on water security: review and scientific assessment of regional issues and research needs Research Provider: Ensis	60,000	120,000
Ongoing	PR07.4029	Title: Fertiliser usage in forestry: current status and prospects for increasing its efficiency and profitability Research Provider: CSIRO Forest Biosciences	64,500	98,500

5. Services & Capability (SC) – now Skills & Knowledge

Initiated	PG08.5093	Title: Investigation of sawmilling by-products as feedstocks for the furafuel process (Levi George Reid) Research Provider: Monash University	90,000	228,000
Initiated	PG08.5097	Title: (Denis M. Cullity Fellowship) Develop expertise and understanding of vacuum wood drying of refractory Australian hardwood commercial species Research Provider: Queensland Department of Primary Industries & Fisheries Objective: 1) Using 'state-of-the-art' equipment, acquire the intrinsic wood property data critical for the development of a vacuum drying model for Australian commercial hardwood species; 2) Gain an expert understanding of the fundamental principles required to create an accurate hardwood vacuum drying model incorporating checking and collapse degrade limitations.	16,100	
Initiated	PG08.5099	Title: Postgraduate scholarship agreement Research Provider: Australian National University Objective: Analysing and documenting the socio-economic impacts of forest closures on forest workers, their families and their communities, and identifying effectiveness of strategies used for mitigating these impacts.	90,000	222,250
Initiated	PG08.5100	Title: Comparative analysis of environmental impacts of timber-based construction system Research Provider: RMIT Objective: 1) To analyse in detail timber's environmental performance compared with alternative construction system for domestic and light commercial buildings; 2) To appraise the performances of timber-based construction system through LCA tools; and 3) To provide leading design parameters and design-based solutions to minimise overall environmental impacts of domestic and light commercial construction systems.	90,000	214,557
Initiated ^d	PR08.5083	Title: Publication of manuals for national distribution, re: Best practice for commercial thinning operations – native regrowth and plantation eucalypt forests Research Provider: Eumoyi Options Pty Ltd Objective: 1) To provide a structured reference for machine silvicultural practices for training new and less experienced supervisors and operators for reducing harvesting damage to trees during thinning in regrowth forests and plantations; 2) Reduce the incidence of damage and potential sawlog volume losses, increase sawlog quality and recovery from thinned eucalypt regrowth and plantations; 3) Consistency of approach to machine silvicultural practices.	4,000	6,650
Initiated ^d	PR08.5085	Title: Development of FWPA strategic plan Research Provider: The Fifth Estate Consultancy Pty Ltd Objective: Development of a five-year Strategic Plan for FWPA.	94,516	94,516

PROGRESS DESCRIPTION	PROJECT NO.	PROJECT DESCRIPTION	FWPA BUDGET \$	TOTAL PROJECT BUDGET * \$
Initiated [#]	PR08.5086	Title: Design guide for plywood shelving Research Provider: Plywood Association of Australia Ltd Objective: 1) To develop a simple easy to use design guide for plywood used in the application of commercial and industrial shelving; 2) To simplify design procedures to enable designers and specifiers to specify plywood shelving with confidence; 3) To increase the utilisation of plywood in the application of commercial and industrial shelving.	10,000	20,000
Initiated	PR08.5087	Title: ESD Knowledge broker (Sustainability) Research Provider: TPC Solutions Pty Ltd Objective: 1) To increase awareness amongst FWPA levy payers in regards to ESD-related activities that specifically impact upon their products and markets, and to facilitate the transfer of specific ESD-related R&D outputs to potential adopters; 2) To improve understanding of ESD-related issues that can be addressed by FWPA to assist in setting future project priorities, and assess opportunities for expanded industry participation in FWPA's ESD R&D projects.	50,000	50,000
Initiated	PR08.5091	Title: Tomorrow's leaders for sustainability – forestry model (Victoria) Research Provider: Sustain Ability International Pty Ltd Objective: To develop content information about career opportunities – covering all parts of the chain of production and consumption of forestry goods – as well as options for students' projects relating to the forestry industry.	17,500	42,500
Initiated	PR08.5092	Title: Support funding for Australian timber design workshops in major capital cities Research Provider: University of Tasmania Objective: 1) To further develop industry networking and engagement with the building design professions; 2) To maintain and increase building professionals' skill in the major aspects of timber design and construction; 3) To disseminate recent research findings on timber use and sustainability to key timber user-groups; and 4) To maintain timber's profile with key building design professional groups and tertiary education institutions by offering targeted and specialist continuing education.	34,000	69,300
Completed	PG02.3102	Title: Composting as a pathway for the management of wood waste Research Provider: University of Queensland	30,000	30,000
Completed	PG03.3114	Title: Optimisation of steam reconditioning for regrowth ash and plantation-grown eucalypt species Research Provider: CSIRO Forest Biosciences	90,000	90,000
Completed	PG04.5012	Title: Advanced remote monitoring and strengthening techniques applied to timber structures Research Provider: Monash University	90,000	90,000
Completed	PG07.5059	Title: New techniques for determining the mechanism of adhesive durability in engineered wood products Research Provider: CSIRO Forest Biosciences	33,200	33,200
Completed	PG07.5068	Title: Integrated field management systems (WFI 2007: Matthew Pope) Research Provider: World Forest Institute	29,052	29,052
Completed	PG07.5070	Title: Education and policies to sustain forestry and the forest industries Research Provider: Australian National University	20,800	20,800
Completed	PR07.5054	Title: Hardwood timber industry knowledge broker program (QA) Research Provider: Q A Pty Ltd	58,500	58,500
Completed	PR07.5055	Title: Softwood timber industry knowledge broker program Research Provider: Breitingher Consulting	37,981	37,981
Completed	PR07.5061	Title: Hardwood timber industry knowledge broker program – Tasmania Research Provider: Forest Contracting Services (Tas) Pty Ltd	12,914	12,914
Completed	PR07.5062	Title: Best practice for commercial thinning operations – native regrowth and plantation eucalypt forests (PR08-5083) Research Provider: Eumoyini Options Pty Ltd	20,000	20,000
Completed	PR07.5064	Title: Seed funding for Australian timber design workshops in major capital cities Research Provider: University of Tasmania	27,500	76,550
Completed	PR07.5066	Title: Improving operational knowledge and response to forest health problems in subtropical hardwood plantations Research Provider: Queensland Department of Primary Industries & Fisheries	15,000	20,000
Ongoing	PG02.3103	Title: Wood conversion modelling Research Provider: Southern Cross University	75,000	75,000
Ongoing	PG02.3107	Title: Competition and collaboration in the Australian timber furniture industry – a value chain approach Research Provider: University of Western Sydney	90,000	90,000
Ongoing	PG05.5032	Title: The importance of environmental factors in microwave induced permeability of timber Research Provider: University of Melbourne	90,000	294,000
Ongoing	PG07.5053	Title: Use of genotypic information for <i>Pinus radiata</i> improvement Research Provider: University of New England	90,000	90,000
Ongoing	PG07.5060	Title: Russell Grimwade prize scholarship (Phil Townsend) Research provider: Australian National University	40,000	40,000
Ongoing	PG07.5073	Title: Comparative environmental impacts of construction (Phil McLeod) Research Provider: University of Tasmania	90,000	156,000

ACRONYMS

ABARE	Australian Bureau of Agricultural and Resource Economics	GLTAA	Glulam Laminated Timber Association of Australia
AGEST	Australian Government Employees Superannuation Trust	JVAP	Joint Venture Agroforestry Program
AIFRS	Australian equivalents to International Financial Reporting Standards	LCI	Life Cycle Inventory
ANU	Australian National University	LWA	Land & Water Australia
A3P	Australian Plantation Products and Paper Industry Council	NAFI	National Association of Forest Industries
CRC	Cooperative Research Centre	RDC	Research and Development Corporation
CSIRO	Commonwealth Scientific and Industrial Research Organisation	RIRDC	Rural Industries Research and Development Corporation
DAFF	Department of Agriculture, Fisheries and Forestry	SSFS	State Super Financial Service
ESD	Ecologically sustainable development	STBA	Southern Tree Breeding Association
EWP	Engineered wood products	STIC	Structural Timber Innovation Company
FRST	Foundation for Research Science and Technology of New Zealand	TDA NSW	Timber Development Association (NSW)
FWPA	Forest & Wood Products Australia	TLfS	Tomorrow's Leaders for Sustainability
FWPRDC	Forest and Wood Products Research and Development Corporation	WQI	Wood Quality Initiative

NOTES
