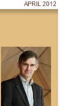
Forest&Wood Products Australia
Knowledge for a sustainable Australia

FORWOOD

APRIL 2012

ForWood – April 2012



Welcome to the second issue of *ForWood*.

It has been a busy few months for FWPA.

In February there was a Summit of industry leaders to discuss the future of FWPA and its activities. The invited participants were the boards of the four national representative organisations and other key members and levy payers. Summit participants identified a number of actions for FWPA, including developing a business case to present at a follow up industry forum in July. A steering committee of the chairs and CEOs of the four national associations was set up to help develop the business case. (See in article Latest news)

March saw the return of the Wood. Naturally Better.™ TV commercials. The commercials are co-branded with Planet Ark's Environmental Edge and feature Peter Maddison, award winning architect and host of Grand Designs Australia. The campaign is expected to build on the success of the first round. (View the commerical)

Following last year's success of the R&DWorks seminar series, the seminars will be held again this year. Kicking off in Launceston, which missed out last year owing to the volcanic ash cloud, they will be held in 12 region centres and capital cities. (See the article in Technology transfer and education for a list of locations and dates)

We have also seen some Board and staffing changes in the past few months. Jim Snelson resigned as a director of the Board in February to concentrate on a new role. John Simon, CEO of Simmonds Lumber Group, was invited to fill a casual vacancy on the Board and he brings with him 25 years of experience in the Australian wood products sector. (Read about the new director in Latest news)

Staff at FWPA also farewelled Jugo Ilic after five years of valuable service, and welcomes Jarrod Gooden who is taking over the position of R&D projects officer. In January, we welcomed back Sarah Gyopar from maternity leave and farewelled Neva Law who was Sarah's replacement in this time.

I would like to thank Jim, Jugo and Neva for their valuable contributions to FWPA. I would also like to welcome John and Jarrod, and welcome back Sarah. You can read about our current staff at on our website.

I hope you enjoy reading this issue of *ForWood* and, as always, I welcome your feedback.

Ric Sinclair

Managing Director

LATEST NEWS

Future of FWPA Summit

Industry leaders from over 50 major Australian and New Zealand forestry and wood products companies and national industry organisations attended the 'Future of FWPA Summit' held in mid-February 2012.

This year, 2012, marks five years since FWPA was established as an industry owned services company. It is funded by levies on growers, processors (except pulp & paper) and importers and is matched by funds from the Commonwealth Government for eligible activities such as investments in R&D and tech transfer. This structure allows FWPA to provide additional industry services such as generic marketing or standards coordination.

Summit participants agreed there was overwhelming support for the continued role of FWPA, and acknowledged that the company was performing well with high levels of governance and credibility.

There was endorsement for continuing current levies, as well as conditional support for increased levies if a business case shows the benefits to industry and levy payers. Participants were open to the possibility of an expansion of FWPA's activities and funding subject to the review of a business case.

In addition, participants thought there were greater opportunities for collaboration across the industry and that FWPA was a suitable vehicle to facilitate collaboration (except for political lobbying).

Summit participants identified a number of action points, including that FWPA:

- lead the creation of an industry-wide vision through consultation and provision of secretariat
- present an options paper on levies, including maintaining levies and possibly increasing them, and also identifies other possible sources of revenue and show how and where any increased revenue could be invested
- work with industry associations to undertake an annual policy forum to identify the priority issues and the associated work program
- incorporate the feedback about FWPA investment priorities into its annual operating plan for 2012/13
- develop a business case for the funding of potential programs in conjunction with existing programs.

Participants were keen to build upon the Summit and ensure that momentum was not lost.

FWPA will host an Industry Forum on 11 July in Melbourne for participants (including those who were invited but could not attend) to discuss the business cases and the next steps.

FWPA Summit: summary of discussions and outcomes

For more information contact Ric Sinclair

New FWPA director brings supply chain focus

The Board of FWPA has invited John Simon, CEO of Simmonds Lumber Group, to fill a casual vacancy following the resignation of Jim Snelson.

'We would like to thank Jim for his valuable contributions to FWPA,' says Mr Ron Adams, FWPA's chairman. 'He has been with the Board for three and half years and his strategic and business acumen have added immensely to the development of the company's R&D investment and generic promotion activities.'

Jim was chair of the FWPA Board's committee for promotions, services and communications and was previously chair of the Board's audit and finance committee. He resigned his directorship early in his second three-year term so he could concentrate on his new role as CEO of Borg Industries.

John began his official role as an FWPA director in March. He has previously had a strong involvement with FWPA as a member of the Market Access and Development Advisory Group and he has more than 25 years' experience in the Australian wood products sector.

After completing his Masters in timber engineering, John worked in timber research at the Council for Scientific and Industrial Research (CSIR) in South Africa. Since arriving in Australia 25 years ago, he has been the managing director of Sterlands, the largest timber frame and truss producer in Australia; CEO of national timber distributor, Pine Solutions; managing director of merchant and retailer, Hudson Building Supplies; and, chairman of the Timber Development Association for 10 years.

Currently he is a director of the Australian Timber Importers Association and is a member of the Housing Industry Association's Manufacturers and Suppliers Council. He is also a Fellow of the Australian Institute of Company Directors.

'I really look forward to working with FWPA and its Board,' says John. 'I had the opportunity to participate in the FWPA industry summit in February and it was great to see the contribution FWPA has already made to the industry. I am excited to be involved in the future direction of the company.'

One third of FWPA's directors are elected each year at the annual general meeting (AGM) and a call for nominations for directors will be advertised in May. FWPA's AGM will be held on Wednesday 17 October in Gympie in conjunction with the biennial conference of the Australian Forest Growers.

If your organisation pays the forest and wood products levy or import charge, you are entitled to become a voting member of FWPA. There is no charge for this membership. Please click here for more information.

INDUSTRY PROMOTION

FWPA sponsors certification forum and workshops

Certification:
Growing demand
Increasing confidence
National Wood Products Forum & Workshop 2012
9 am – 5 pm, 31 May 2012.
Dockside, Darling Harbour, Sydney

The first event of its kind in Australia, the Certification: *Growing demand. Increasing confidence. National Wood Products Forum & Workshop 2012* aims to look beyond systems to promote the future of certification in Australia.

The effects of environmental concerns are changing the way Australians do business and this is especially evident in the built environment. Green Star ratings and other systems are becoming increasingly important to everyone from merchants and purchasing officers to architects and developers. Similarly, in the wood-based products sector, paper goods brands are demonstrating a growing awareness of the source of materials.

Certification: Growing demand. Increasing confidence. National Wood Products Forum & Workshop 2012 is an initiative designed to bring a broad range of interested people together in a one-day seminar and hands-on workshops.

The event will explore strategies to increase the awareness and uptake of certification and identify impediments to its adoption.

A diverse program includes speakers from market and attitudinal researchers, Wesfarmers (Bunnings/Officeworks), Kimberley Clark Australia, Woolworths (Masters), certifying bodies (Forest Stewardship Council and Australian Forestry Standard), academia and the forest and wood products industries.

Presented by Planet Ark's Make It Wood campaign, the program is designed to be of value to the whole supply chain, including: producers and importers, manufacturers and converters, wholesalers and retailers, private and government sustainability and purchasing, NGOs and other interested bodies.

When: 31 May 2012
Where: Dockside, Darling Harbour, Sydney
Cost: $95 (includes lunch, post-event canapés and drinks)
Bookings: certificationforum.eventbrite.com.au/ – Numbers are limited
Information: MakeItWood.org/CertificationForum
Chris Philpot
Planet Ark
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0422 289 599
02 8484 7208

Mawson's hut – a testament to timber endurance: WoodSolutions' blog

FWPA's WoodSolutions program regularly posts case studies that are exemplars of timber buildings on the programs webpage.

This month's blog features the amazing Mawson's Hut.

The durability of timber has never quite been tested and proven like this – more than 100 years exposed to blizzards or covered in ice in one of the harshest environments on the planet.

When, in 1911, the Australian geologist Douglas Mawson chose Cape Denison as the site for his now-famous base camp in Antarctica, he was blissfully unaware of its reputation as 'the most tempest-ridden place on the face of the planet'.

The rest is history and a testament to the endurance of timber construction, with 'Dougie's shacks' as they became known, surviving a century of 300 km/h blizzards and -40°C temperatures.

Officially, the little cluster of pine structures was the base of the 1911–14 Australasian Antarctic Expedition (AAE) and home for two years for the 18-member team led by 29 year-old Mawson – later knighted for his exploits.

Read about this case study and more on woodsolutions.com.au

RESEARCH DEVELOPMENT & EXTENSION

Glulam laminating timbers – shorter but just as strong

(PNB157-0910 Glulam design based on lamination grades and the use of mill shorts)

Research has found that glulam beams made from laminating timbers as short as one metre in length are more than strong enough to meet Australian Standards and New Zealand Standards (AS/NZS).

Currently glulam manufacturers have to use relatively long laminating timbers in their glulam beams, specifically on the outer laminations of the glulam beam, or else, under existing AS/NZS, they suffer the application of a 'strength adjustment factor' that has an adverse effect on the strength of the final product.

Tim Goodall, chair of the Glulam Laminated Timber Association of Australia (GLTAA), believes these exciting findings will reduce the timber input costs of manufacturing glulam beams by 30% or more.

The strength of each glulam beam depends on factors such as the feed stock species, the timbers' wood strength qualities and the minimum spacing of joints (made using sophisticated modern 'finger joint' cutting machinery). Current standards link finger joint bending and tension strengths (i.e. the energy required to pull either the timber or joint apart) of the laminating timbers to the bending and tension strengths of the final manufactured glulam beam. The standards impose an upper limit on glulam strengths where they cannot exceed the strengths of the laminating timber. Unfortunately this penalises lower grade material, such as MGP10, which benefits most as laminating reinforces the greater number of knots and other defects.

The research team, led by Dr Con Adam at Monash University, investigated the relationship between tension strength and finger joint spacing for radiata pine, slash pine and Victorian ash species. Finger joint spacing varied from 0.3 to 2.1 metres.

The research quantified the effect of finger joint spacing on laminating timber tension strengths and determined that when joints are at least one metre apart glulam beam strengths are not affected.

In addition, the researchers developed a lamination factor that allows glulam bending and tension strengths to be determined from finger joint tension strengths. They found that glulam design tension strengths were understated in previous standards and recommended tension strength values in the glulam (GL) grade values be increased in any future standards.

The report also recommended changes to the AS/NZS standards for determining the strength of laminating timbers based on the spacing and quality of joints – so that good quality joints are rewarded and poor ones are not. Furthermore, it proposed a framework for future glulam standards that would give designers greater flexibility in design and further enhance the appeal of structural glulam.

For saw millers the findings mean shorter lengths of timber can now find a larger market and timber they may have previously sold for chipping will have a significantly higher value. For glulam manufacturers, it means they can further optimise the timber they use by cutting out any knots and defects in the timber, in effect upgrading the strength qualities of the timber.

Hi-tech timber construction system for commercial buildings

Helping architects and engineers use timber instead of steel or concrete in large span, commercial buildings is a key mission of the New Zealand-based Structural Timber Innovation Company (STIC).

STIC works with its research partners at the University of Auckland, University of Canterbury and University of Technology, Sydney, developing technologies that maximise timber's structural abilities. FWPA is a major financial contributor to STIC, recognising that this important research will help develop significant market opportunities for wood growers and processors in Australia.

After several years of intensive R&D, STIC is now actively promoting its EXPAN timber construction system, which includes post-tensioned frames and walls, timber and timber-concrete composite floors and Quick-Connect portal frames.

A post-tensioned beam is, in essence, a hollow LVL or glulam box beam with steel rods inside that are attached to the beam ends and tightened. The steel rods act to compress the timber box, giving the beam-column system greater strength and stiffness. It also helps to reduce the weight, beam depth and cost of the beams. A great advantage of using these beams is there is no need to wait for the timber to develop strength, as opposed to concrete that ideally requires 28 days to develop full strength.

The Quick-Connect system was developed to eliminate the need for hammering in the huge number of nails often required by overlapping plywood or timber gussets. Quick-Connect uses a steel rod inside a U-shaped timber sleeve with a steel end bearing plate at the ends. The sleeve is fixed to the timber beam by a series of specially aligned screws, usually off-site when the beam is being manufactured. When the timber beams are joined on-site it is easy to slide the steel rod into the wooden sleeve and then tighten it against the steel end bearing plate.

The EXPAN system is designed to save labour and crane time, and therefore reduce construction costs, while being exceptionally strong and robust. The unique technology combined with the flexibility of timber means it has superior lateral stability and seismic capabilities, making it ideal for building in earthquake zones and high wind areas. The connection system also allows buildings to be deconstructed and rebuilt somewhere else – a real benefit for any developers and businesses facing uncertain demographic futures. Existing buildings can also have extra storeys added, provided the weight does not exceed the design limit of the original foundation system.

Seven buildings using EXPAN technology have already been constructed in New Zealand with several more about to begin construction, including two in earthquake-damaged Christchurch. Andrew Dunn, CEO of the Timber Development Association, represents EXPAN in Australia and is assisting a number of developers plan buildings in Queensland, NSW and Victoria.

A recent case study by internationally acknowledged companies Arup and Rider Levett Bucknall (RLB) showed that LVL portal frame buildings using the EXPAN Quick-Connect system are extremely cost competitive with equivalent steel buildings. The test design was for a building 40m long by 32m wide by 5m high at the eaves. If built in southern Australia it would cost $158,360 to build in timber and $182,464 in steel; in a region C area with much stronger wind loads it would cost $216,495 in timber and $278,100 in steel.

The STIC has recently released a Timber Portal Frame design guide for both Australian and New Zealand conditions. It is available at www.expan.co.nz as a licensed download.

PROJECT REPORTS & UPDATES

New projects

Each issue of *ForWood* will list the latest approved projects. Below are projects that have been approved since January 2012.

Project *(Research Provider)*	FWPA invests	Total budget
PRA277-1112 Updating of fire safety supporting documentation for BCA *(Exova Warringtonfire)*	$61,000	$61,000
PRA278-1112 Development of a forest resources business plan *(PF Olsen & Co Ltd)*	$17,325	$17,325
PRB280-1112 Opportunities for Using Sawmill Residues in Australia *(The Carnot Group Pty Ltd)*	$29,960	$29,960
PRC281-1112 A scoping study for the operational deployment of LiDAR derived information into resource systems currently in use by the major softwood growers in Australia *(Forestry Systems)*	$28,500	$28,500

EDUCATION & CAPACITY

Discover solutions to benefit your forest and wood products business, all in one morning!

Discover solutions to benefit your forest and wood products business, all in one morning!
FWPA
R&Dworks.
2012 SEMINAR SERIES

FWPA is again presenting its successful R&DWorks seminar program in 2012.

In the space of three hours 12 short, sharp talks will cover the benefits and findings of research projects, covering many aspects of the wood and timber industries. The concise presentations will particularly interest senior executives and key decision makers by demonstrating how R&D projects are creating real opportunities for their companies and customers.

During the session breaks and over a networking lunch researchers and audience members are encouraged to talk and ask questions, helping strengthen bonds between the industry and research communities.

The seminars kicked off in Launceston in April, and they will be held in major cities and key forestry regions across Australia, with presentations being selected to be most relevant to the FWPA members in that region.

Dates and locations for the remaining seminars are

- Mt Gambier SA – 12 June 2012
- Bunbury WA –14 June 2012
- Perth WA – 15 June 2012
- Melbourne VIC – 10 July 2012
- Churchill VIC – 11 July 2012
- Maryborough QLD – 9 August 2012
- Brisbane QLD – 4 September 2012
- Coffs Harbour QLD – 5 September 2012
- Albury NSW – 4 October 2012
- Oberon NSW – 31 October 2012
- Sydney NSW – 1 November 2012
- Hobart TAS – 29 November 2012

Topics and registration details for the remaining seminars will be published on the FWPA's website and in industry publications closer the events' date.

Click here to register your interest for these 12 short, sharp talks for senior executives and key decision makers.

A number of the 2011 presentations were videoed and are to be available for viewing on the FWPA website.

Contact Brooke Garas for more information.

FWPA announces recipient of the 2012 full postgraduate scholarship

Ben Slee has received a full scholarship valued at $105,000 over three years. Ben has worked on a remarkably diverse range of projects from cutting edge contemporary design, engineering and manufacture to the repair of 12th century stonework on Southwark Cathedral in the heart of London.

Through this diverse experience Ben has developed a considerable understanding of the different ways in which high quality design can be procured and constructed and a keen interest in finding more effective, efficient and enjoyable ways for the client, construction contractors and designers to engage with each other in order to build the most amazing buildings.

Ben is leading a research project at the University of Sydney with Professor Richard Hyde looking at the integration of thermal mass and lightweight timber construction. The scholarship will allow this FWPA funded project to develop into an investigation of the storage (thermal mass) and transfer (ventilation) of thermal energy in lightweight (timber) spaces. The intention is to be able to provide quantitative advice in addition to the qualitative principles currently widely discussed.

FWPA announces recipient of 2012 postgraduate top-up scholarship

Kirsty Stephen has received a top up FWPA Postgraduate Scholarship valued at $18,654 over three years. Kirsty completed her Microbiology and Biotechnology undergraduate degree and honours year at the University of the Sunshine Coast. Kirsty's honours year involved a research project looking at biting midge and biological control, which is where her interest in entomology began.

After completing her studies, Kirsty undertook a summer job at the then Department of Primary Industries. Initially she worked as a laboratory technician within the Entomology/Fruit Fly group, and then moved on to a more demanding position within the Biological Control Group, where her duties varied from raising insects and running field trials to molecular and microbial work.

Kirsty's research is focused on termites (local and other pest species) and bacterial symbionts (*Actinomycetes*). With this research she aims to: gain a better understanding of subterranean termite biology; identify what the association between the termite host and bacterial symbiont means; and, discover if this host-symbiont relationship will highlight new areas for termite control. This research has the potential to improve control methods, not only for termites but possibly other important pest species through the sharing of research design/methods and the importance of symbiont-host relationships

'Being awarded a top-up scholarship from Forestry and Wood Products Australia (FWPA) has been a fantastic bonus, meaning I am financially more secure allowing me to focus fully on my research'. says Kirsty.

FWPA would like to congratulate each recipient and look forward to supporting them through their research projects.

STANDARDS COORDINATION

Residential timber-framed construction: part 1 design criteria

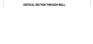
AS 1684.1 provides design methods, assumptions and other design criteria which have been used in the preparation of the span tables, uplift forces and racking pressures contained in AS 1684.2, AS 1684.3 & AS 1684.4.

Since its release, there have been significant changes to design standards referenced in AS 1684.1 such as AS 1720.1 Timber structures – design methods and the AS 1170 Structural design actions suite of standards. This being the case, FWPA has engaged a consultant to begin the task of revising the Standard and prepare a draft document for consideration by Standards Australia's TM-001 Committee.

The revision of this standard is of major importance to the timber industry and it needs to keep pace with current design methodologies.

If you wish to be involved in the revision of the standard, please contact Boris Iskra.

Building Code of Australia – external noise



The Australian Building Code Board is currently finalising a draft proposal to the Building Code of Australia (BCA) in relation to external noise intrusion into residential housing that will be circulated for public comment.

The proposed changes will implement five noise categories, from a Category 0 (least) to Category 5 (highest), for wall, roof and floor building elements (of keen interest to the timber industry) as well as windows and doors. The draft refers to the Rw+Ctr (acoustic) term, which accounts for the different noise attenuation properties of various materials including low frequency noise reduction performance.

Of some concern is that for noise sensitive spaces in a residence, in all designated sound exposure categories (regardless of the actual noise exposure), the same level of performance is nominated. FWPA has been actively involved in obtaining acoustic performance values for traditional as well as 'new' timber framed building systems to be included in the proposed draft.

For further information, contact Boris Iskra.

ACCOUNT UPDATE

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Update information

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