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Policy, regulations and guidelines affecting wood product markets in Australia's built environment - Summary Report

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**Policy, regulations and guidelines affecting wood product
markets in Australia's built environment**

Summary Report

Prepared for the

**Forest & Wood Products
Research & Development Corporation**

by

G. Nolan, R. Eastment and C. Nicholson

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Executive Summary

This review explores government policy, regulations and guidelines, (excluding established building codes and standards) that affect the use and markets for wood products in the built environment within Australia. It includes:

- Auditing key policy, regulations and guidelines operating at local, State and National level relating to the procurement and use of wood products within the built environment; and
- Identifying the technical or other sources used to develop or support these policies.

Governments generally develop and implement policies to address particular perceived needs or deliver identified benefits to society. For building materials government policy is generally implemented by:

- Applying constraints or conditions on items purchased;
- Imposing regulations on applications under their jurisdiction; and
- Distributing guidelines designed to influence the decisions of others.

The major area of policy development affecting the built environment is in policy supporting ecologically sustainable development (ESD). The ESD issues relevant to the use and markets for wood products in the built environment include:

- The environmental impact of timber construction;
- The environmental impact of using particular timbers;
- The use of preservative treated timber;
- The disposal of timber waste;
- Formaldehyde and other emissions from engineered and composite wood products; and
- Green procurement processes.

Policy development and adoption, especially policy concerning ESD, affects all major building material and most construction methods. It also affects different wood products in different ways. A regulation or policy that restricts the use of one wood product may reinforce the market for another.

The environmental impact of timber construction

Timber has particular benefits as a material in ESD building design and timber construction is recognised directly or indirectly as a preferred building method in some policies and guidelines. Their positive impact on wood product markets, however, appears to be low.

The environmental impact of using particular timbers

In ESD texts, almost all negative environmental effects of timber production are associated with its growth and harvest (Willis and Tonkin 1998). Consequently, policy restrictions and encouragements appear to be framed to:

- Minimise the effect of unsustainable, unregulated or illegal logging; and
- Minimise the potential biodiversity effect of, and recognise the political and community sensitivities, to regulated native forest logging in Australia.

While the vast majority of logging in Australia is conducted legally, unregulated or illegal logging is an issue of international concern. Jaakko Poyry (2005) estimates that illegal logging influences \$400m worth of Australia's imports of timber products and furniture. It is likely that some certification of authenticity or legality will be required on all timber sold in Australia in the medium term.

Environmental concerns with Australian produced wood products appear to focus on minimising the potential biodiversity effect of, and recognising political and community interests or sensitivities to, regulated native forest harvesting and management. Biodiversity-focused recommendations are often based on key public documents, such as the State of the Environment report (Australian State of Environment Committee 2001) and commentary by interested parties. Concurrently, native forestry remains a prominent political and community issue and this naturally influences the development of ESD policy.

These biodiversity and political concerns have shaped the requirements or guidelines that seek to promote timber from one particular source and restrict or exclude timber from another. In general, they accept or favour plantation, certified and recycled timber and recommend against timber from some or all native forests. However, they are far from consistent. A summary of the requirements found during a survey of 34 government agencies, 44 municipal governments and other organisations is included in Table ES.1.

Table ES.1. Summary of timber certification and source requirement of surveyed government and other organisations

Organisation	Type of requirement	Certification					Source of timber							
		Certified	AFS	FSC	ISO 14001	RFA	sustainably managed	plantation	regrowth	recycled	native forest	non-timber	rainforests	high conservation
Federal Government														
Department of Defence	negotiable		Y											
Australian Greenhouse Office	guideline						Y	Y	Y					
State Government														
ACT Government Procurement Board	guideline						Y	Y						
ACT Planning and Land Authority	guideline						Y							
ACT Planning and Land Authority	guideline							Y						
Queensland Department of Public Works	guideline	Y					Y	Y	Y			N		
SA Dep. of Admin. & Information Services	guideline							Y						
SA Dep. of Admin. & Information Services	guideline							Y	Y					
VicUrban	regulation		Y	Y				Y		Y				
Local Government														
Leichhardt Council	negotiable							Y	Y	Y		N		N
Manly City Council	negotiable							Y	Y	Y		N		N
North Sydney Council	negotiable	Y								Y				
Sutherland Shire Council	negotiable							Y	Y	Y		N		N
Sydney City Council	regulation	Y	Y	Y	Y	Y								
Willoughby City Council	negotiable			Y				Y	Y	Y		Y	N	N
Brisbane City Council	guideline			Y				Y	Y	Y		N		N
Moreland City Council	negotiable	Y	Y	Y				Y		Y				
Non-government organisation (NGO)														
Australian Environmental Labelling Assoc.	guideline		Y	Y				Y	Y					
Green Building Council of Australia	guideline			Y						Y				
Greenpeace	guideline	Y		Y				Y			N			
Royal Australian Institute of Architects	guideline													N
The RIC Good Wood Guide	guideline	Y		Y				Y	N	Y	N	N	N	N
Wilderness Society's One Stop Timber Shop	guideline							Y		Y	N		N	

Notes Y equals a statement that this choice is accepted, recommended or required

N equals a statement that this choice is unacceptable, not recommended or prohibited

Considerable confusion and misunderstanding of key terms and certification systems were evident and most agencies found the commentary and advice in the public domain confusing and contradictory.

The use of preservative treated timber

The Australian Pesticide and Veterinary Medicines Authority (APVMA) recently introduced constraints on the use of copper chrome arsenate (CCA) preservative to treat timber sold for particular applications, particularly decks and playground

equipment. This has widely been interpreted as a ban on the use of CCA treated material in those applications. While CCA can be used to treat timber for other applications, confusion about the requirements by some agencies and councils and the adoption of a precautionary approach to CCA by others, wary of OH & S provisions and environmental laws in some states, has probably restricted its use much further.

The disposal of timber waste

Waste is general managed by a mixture of private companies, individual and joint local government agencies and state government authorities. The major area of policy concern is at state government level with CCA and creosote treated timber. In their report for the FWPRDC, Taylor *et al.* (2005) conclude that disposal of clean and treated wood waste will come under new or increased restriction in the near future.

Formaldehyde and other emissions

Walker-Morison's Environment Design Guide PRO 30 (2003) states that conventional interior grade plywood, MDF and particleboard are primary contributors to formaldehyde emission concerns in buildings. However, the industry advises that at least three Australian Standards detail allowable formaldehyde emission in line with world best practice. About 95% of Australian produced A-bond plywood and LVL material and the output of at least one major board producer complies with these provisions. This information has not been conveyed to those preparing regulations or guidelines.

Green procurement processes

Governments' green procurement practices falls into two distinct groups:

- Direct procurement policies for purchasing goods for the agency's own use; and
- Policy for indirect procurement, mainly for commissioning buildings with a particular sustainability or 'green' rating.

While government agencies establish technical performance requirements for the timber purchased, none outside of those listed in Table ES.1 appeared to establish constraints on timber on environmental grounds. Even for those listed in Table ES.1, the rigor in applying the constraints is difficult to establish.

Local council procurement schemes tend to concentrate on consumables such as paper, packaging and chemicals. Several contain descriptions of alternative sources of timber but none currently include direct constraints on particular timbers.

Government agencies are increasingly considering environmental performance ratings for buildings or structures they procure. Several schemes have been developed internationally and the dominant Australian rating scheme is the *Green Star* system developed by the Green Building Council of Australia (GBCA). A *Green Star* rating involves assessing different aspects of the building against the performance specified in a *Green Star* spreadsheet. Awarded points go towards a star rating for the building's design. A five-star rating is classed as Australian excellence. The system has general credibility within the building design professions, especially architects in Sydney and Melbourne, and considerable support from the building property sector and government agencies.

To qualify for the points available for timber in a *Green Star* assessment, only recycled or FSC certified timber can be used. An overview of the GBCA and a list of its government members are included in Appendix 2.1. While *Green Star* provides ratings for buildings, other organisations such as Australian Environmental Labelling Association Inc. rate materials, loose furniture and other products.

Local government

Local government authorities (LGAs) are the level of Australian government with the most direct influence on the arrangement and materials used in the built environment. For this review, a broad collection of council planning documents was inspected and council staff in 44 councils in five mainland states were interviewed to determine the policies they used to influence timber's application in the built environment. The interviews found that the constraints or restrictions councils can impose on timber, outside areas of health and amenity, are generally framed as part of sustainability policy. The sustainability policies of interviewed councils were characterized using a 1 - 5 rating system where:

- **1** signified that the council didn't have a sustainability policy;
- **2** signified that the council didn't have a sustainability policy' but was in the process of developing one;
- **3** signified that the council had a general sustainability policy;
- **4** signified that the council had a detailed sustainability policy with voluntary or negotiable timber provisions; and
- **5** signified that the council had a detailed sustainability policy and enforced timber provisions.

Only seven interviewed councils had sustainability policies with provisions concerning timber. 84% of councils, representing 73% of the total population in the councils interviewed, had only general sustainability policies or no policy at all. With the exception of Brisbane City Council in Queensland, councils with detailed sustainability policies with timber provisions were centred in metropolitan Sydney, Newcastle or Melbourne.

Of the 14 NSW councils interviewed, only one, Sydney City Council, rated as a five. Four other councils, Leichhardt, Willoughby, Sutherland and Newcastle City, rated a 4. Of NSW councils interviewed, 50% had only a general sustainability policy. One of eleven Victorian councils surveyed, Moreland City Council, rated as a 4. While not interviewed, Melbourne City Council and Port Phillip Council also had sustainability policies with timber specific provisions.

One Queensland council, Brisbane City Council, had a detailed sustainability policy with timber provisions and this was still in draft form.

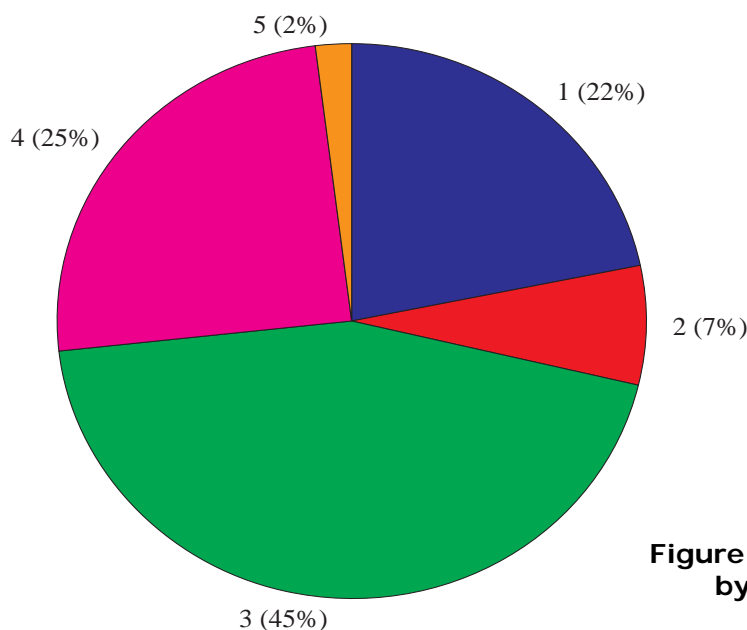


Figure ES.1. Population covered by council policy rating

Only 50% of interviewed South Australian councils had sustainability policies and all were general documents. Only one interviewed council in Western Australia had a general sustainability policy. The remainder did not have sustainability policies and were not intending to develop one.

Support for detailed ESD policy seems to be largely dependent on general local community opinion, 'champions' in council's professional staff and external funding. Younger officers generally saw ESD policy as necessary and important, while older officers appeared to be generally indifferent to it.

Overwhelmingly during the interviews, council officers did not make the connection between sustainability policy and constraints on timber specification. There was a genuine level of surprise from council officers about the focus of the research as explained. When the connection was explained, the overwhelming response was that councils wanted to support sustainable timber use. However, they generally admitted that they had no way of assessing what this was.

Council officers regularly asked to be provided with clear and independent advice on sustainable, responsible and practical timber specifications and use.

Only 7 interviewed councils had specific provisions about timber in the policies they applied. Generally, the requirements were to limit or constrain the use of some wood products in the built environment. Only one council, Sydney City, maintained that they enforced the provisions.

There are several major points to be noted from these provisions:

- Several councils stated that they had a mandate or responsibility to promote ESD and to be environmental leaders for both their communities and local government in general.
- While only Sydney Council maintained that it enforced its policy, the requirements of several other councils were framed as regulations and contained words such as 'must'.
- While several of the requirements called for documentary evidence for the source of the timber, no industry members mentioned that they had been asked for this evidence or had difficulties supplying the evidence if asked.
- No recommendation or requirement cited a reference supplied or supported by the Australian timber industry. Sydney City Council's interaction with the Timber Development Association (TDA NSW) was the nearest thing found to industry involvement.

Likely future developments

The major area of increasing policy development, regulatory control and public guidance affecting wood products' use in the built environment is likely to remain ecologically sustainable development (ESD) focusing on:

- **The thermal performance of buildings.** Thermal performance requirements for buildings are likely to become more stringent;
- **Broader sustainability issues of buildings;** and
- **The sustainability of building materials.** The major issues persistently confronting timber's position as a sustainable material will remain illegal logging, the environmental impact of harvesting for particular timbers and the use and disposal of preservative treated timber;
 - Log origin certification is likely to be introduced in the medium term. This will require a traceable supply chain for all timber products sold in Australia from a legal log source to the customer.

- Except in Victoria, federal and state government agencies will probably not implement direct constraints on Australian produced hardwoods. State governments are major log producers. However, it is highly likely that governments will increasingly require buildings they commission to achieve particular sustainability ratings.
- Demand for preservative treated timber is likely to continue but constraints on products like CCA treated wood are expected to increase. Councils are likely to continue to adopt a precautionary response to CCA and limit treated timber use unless industry clearly informs them of regulatory changes and means to deal with the changes safely and effectively.

Private industry interest and requirements in each of these areas is likely to increase.

Local government action

Local government will have a role in all the areas detailed above. Councils are likely to remain the first point of contact between the general and building community and government regulation. With independent building surveyors, councils will have a continuing influence on the use of timber in building. In the absence of broad leadership by other councils or industry, councils are likely to continue their leaning to rely on environmental non-government organisations for advice and standards.

Conclusions

Policy, regulations and guidelines outside established building codes and standards are affecting the use and markets for wood products in the built environment within Australia, primarily as a result of a developing awareness of the impacts of the built environment on the natural environment. These are most regularly framed to:

- Avoid timber drawn from what is perceived as unsustainable or undesirable forestry practices;
- Ensure the health and safety of people using CCA treated timber products during construction, service, recycling and final disposal; and
- Limit chemical emission (or off-gassing) from wood coating, binders and glues.

These requirements impact on specific sectors of the timber industry and on the construction and building design industries. The impact on the timber industry varies considerably with the type of project and the product sector.

The constraints influence mainly high quality fit-out products in commercial, education and other buildings procured for state government agencies, municipal buildings constructed in established areas, and flagship buildings designed by key architectural practices. The timber industry's dominant market sector, housing, is not significantly involved.

The constraints primarily impact the native hardwood sector and then to a moderate degree. With the exception of *Green Star* requirements, the constraints currently have little or no impact on the use of plantation softwood and hardwoods, engineered wood products and wood panels.

This current moderate impact of these constraints will not continue as the GBCA's *Green Star* rating tools become increasingly embedded with the building procurement and design sectors. The GBCA's requirements also impact on the relationship between the timber industry as a material supplier and timber users as industry is not able to supply leading building construction customers with the material they want.

Technical basis for requirements

It is incorrect to assume that if a requirement exists, a technical basis necessarily exists for that requirement. Requirements can be established for political reasons or because regulators believe that it is the right thing to do. The connection between action and effect need not be proven. Some public timber requirements are likely to be of this type. Where regulators have sought technical guidance, generally only three sources have been available:

- General federal and state government documents;
- Environmental groups' internet sites or publications; and
- Environmental consultants who combine inputs from selected public documents, environmental groups and others into some cogent advice.

Several requirements are more thoughtfully prepared. However, both the GBCA's and RMIT's Centre for Design's advice were formulated without significant engagement with the timber industry. Regrettably, Australian Forestry Standard Limited maintains no effective profile with the design professions or those providing advice to the design and building professions. As a result of this lack of engagement, significant and unnecessary gaps are presented between industry's performance and reported environmental concerns. Opportunities to present timber's positive contribution to ESD building are lost.

Industry response

The timber industry has not generally sought to involve itself in building industry policy development, except where these developments directly influence specific wood product markets. To date, engagement with the development of ESD policy for buildings has followed this pattern. Action has been minimal until after an adverse policy outcome has been implemented. The response to the implementation of 5 Star thermal performance requirements in Victoria, the previous timber policy in Sydney Council and the current recommendations of the GBCA of Australia are examples of this.

Clearly, industry's inaction is one of the reasons why requirements in ESD regulations and guidelines in the public domain often conflict with industry's interests. However, there is currently a window-of-opportunity for industry. Many state and local government organisations are likely to now be responsive to responsible and practical advice from the timber industry on the sustainable specification and use of wood products.

There is a clear need for industry to now engage with state and local government regulators and others active in ESD policy development. This engagement needs to:

- Include both the forest and production sectors of industry; and
- Establish explicit sustainability indicators that industry can maintain and market.

Recommendations

The primary areas of required industry action are:

- Improve engagement with key organisations, and State and local government policy makers. This needs to be in both a focused and a general manner;
- Establish certification, chain of custody and other procedures to support explicit sustainability indicators; and
- Revising general marketing terminology.

Engagement

Industry should engage:

- As a matter of priority, with the Green Building Council of Australia;
- With RMIT's Centre for Design; and
- With local and state governments by framing and implementing a communication strategy for local councils and relevant state government organisations. This should include establishing a credible and well publicised source of balanced information and distribution by contact in person as well as hard-copy and online publication.

Certification, chain of custody and other procedures

- As a matter of urgency, the Australian Forestry Standard Ltd should be encouraged to become active in marketing AFS certification.
- Industry should encourage the Federal Government to adopt and enforce a traceable tagging of material from the legally harvested log to the wholesaler.
- All producers should adopt chain of custody processes in line with certification of the logs they receive. Legal log-origin certification should be actively marketed.
- Industry should determine, coordinate and market explicit sustainability indicators for each of the major forest product groups.

General marketing terminology

- General marketing terminology should be reviewed to ensure that the source and production processes are clear.

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