



# Wood Encouragement Policy for Western Australia



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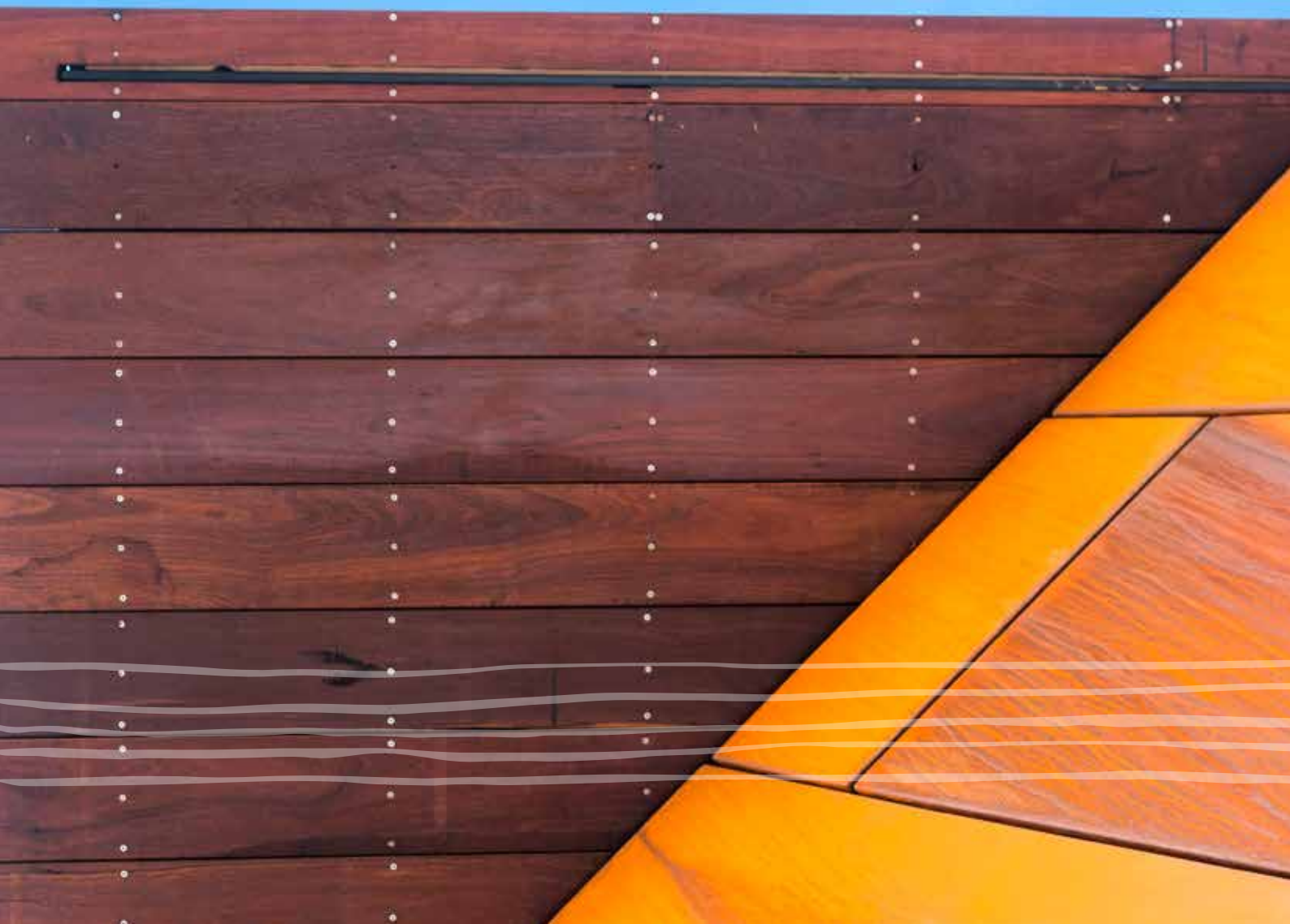
# Wood Encouragement Policy for Western Australia

Wood is a renewable and sustainable product. It is strong, stores carbon, provides health and wellbeing benefits and is aesthetically pleasing.

Because of these qualities, wood is increasingly used by architects and designers as the building material of choice.

An increasing number of design guidelines for using timber as a building material exist and the National Construction Code has been revised to include provisions that allow the use of timber construction systems under the deemed-to-satisfy provisions in the context of the Building Code of Australia for residential and office buildings up to 25 metres high.

Wood encouragement policies have been widely implemented at a range of government levels, both nationally and internationally, to encourage the use of responsibly sourced wood in the construction and fit-out of buildings wherever it is fit for purpose and cost effective.





## Purpose

The purpose of the Wood Encouragement Policy for Western Australia (WEP) is to encourage the use of responsibly sourced wood in the construction and fit-out of buildings or other structures, on its own or in combination with other materials.

Responsibly sourced wood is wood that is grown and harvested in a sustainable way, in compliance with Australian and international standards such as the Australian Forest Management Standard or the Programme for the Endorsement of Forest Certification.

**Front cover:** Wood has been used to great effect in the City of Perth Library. Photo credit: City of Perth.

**Left:** Wood has been used to create dramatic spaces in Yagan Square. Photo credit: Thom Perry.

**This page:**

**Above:** Wood provides warmth to the Wembley Golf Course. Photo credit: Acorn Photo.

**Right:** The use of wood provided quiet and reflective spaces at the Library. Photo credit: City of Perth.



## Benefits of Wood

### Sustainable Material

Wood sourced from sustainably managed forests is a renewable resource. Such forests, where regeneration and regrowth are promoted, provide a wide range of other benefits such as carbon storage, oxygen generation and forest habitat.

### Health and Wellbeing

It is recognised that wooden constructions and the use of wood in buildings have a positive impact on health, wellbeing and productivity. Forest and Wood Products Australia research<sup>1</sup> shows that using and increasing wood in buildings creates an effect similar to time spent outdoors.

Overall, the lifetime energy use and greenhouse gas emissions produced by wood products is considerably lower than that of other materials, which should be taken into account when comparing lifetime costs.

### Mitigating Climate Change

Responsibly sourced wood helps to minimise greenhouse gas emissions and mitigate climate change in various ways. Trees absorb carbon, and wood products retain the carbon for the lifetime of the product. It is estimated that approximately 50 per cent of the dry weight of wood is carbon<sup>2</sup>.

Timber building materials use less energy to produce (embedded energy) than other materials such as concrete and steel<sup>3</sup>.

### Energy Efficiency

In addition to using less energy to produce, wood is a natural insulator, making buildings containing timber materials more energy efficient with respect to heating and cooling. Research has shown that, as an insulator, wood is 15 times better than masonry and concrete, 400 times better than steel, and 1,770 times better than aluminium<sup>4</sup>.

### Quicker to Build

Most wooden buildings can be prefabricated offsite, which makes them fast and efficient to build. The 18-storey Brock Commons building in Vancouver was built in less than 70 days after the prefabricated components arrived on site, approximately four months faster than a typical project of this size<sup>5</sup>.

Offsite prefabrication also means less disturbance around the building site, which may be an important consideration in urban settings.

**Above and right:** The University of Western Australia's Indian Ocean Research Centre uses wood to great effect as a sustainable and flexible building material. Photo credit: Acorn Photo.



1 Workplaces: Wellness+Wood=Productivity, Pollinate, February 2018

2 Australian Greenhouse Office, 2004

3 Which is Better? Steel, Concrete or Wood, Glover, J., Sydney University, 2001

4 Your Home Technical Manual, Commonwealth of Australia, 2008

5 [www.thinkwood.com/our-projects/brock-commons-tallwood-house](http://www.thinkwood.com/our-projects/brock-commons-tallwood-house)



## Consistency with State Government Initiatives

The WEP aligns with a number of the State's existing procurement policies which aim to support the State Government's key objectives of boosting the economy and increasing employment.

By encouraging procurement from local suppliers, the State Government's Buy Local Policy and Industry Participation Strategy aim to support local industry, particularly in regional areas. In line with these policies, an increased demand in responsibly sourced wood from local suppliers will support the State's forestry and wood products industries. Supporting these industries is expected to have a positive impact on the development and prosperity of regions where they are located.



**Above left:** Wood enabled Brooking Design Architects to design the JSRACS Beechboro Kindergarten as an exciting space that promotes learning. Photo credit: Heather Robbins.

**Left:** Brooking Design Architects used high span laminated veneer lumber beams to create a dynamic interior for the JSRACS Senior Learning Centre, promoting interaction and movement. Photo credit: Heather Robbins.

## Scope

The WEP is, in first instance, aimed at State Government procurement, and in particular at agencies undertaking construction and/or infrastructure projects such as office and public transport buildings, housing and schools. Other organisations, such as Local Governments and private companies, are encouraged to also adopt this WEP or similar wood encouragement policies.

The WEP does not mandate or give preference to the use of wood, rather it aims to encourage the use of responsibly sourced wood in construction where:

- it represents value for money;
- it provides quality and functionality;
- it complies with other relevant legislation, policies and guidelines; and
- it complies with relevant Australian standards.

## Consideration for Procurement Officers

Procurement officers are encouraged to give equal consideration to responsibly sourced wood alongside other materials in the design and fit-out of buildings, where fit for purpose. In order to assess wood as a possible building material, procurement officers may wish to include in the specifications a request to designers to consider wood in the design or fit-out of a building. In order to facilitate this, procurement officers are encouraged to include in their specifications a clause along the following lines:

*"Through its Wood Encouragement Policy for Western Australia, the State Government encourages the use of responsibly sourced wood and wood products alongside other building materials, particularly in the construction and fit-out of buildings and other infrastructure, where:*

- *it represents value for money;*
- *it provides quality and functionality;*
- *it complies with other relevant legislation, policies and guidelines; and*
- *it complies with relevant Australian standards.*

*Please consider the use of wood in your design to take advantage of the benefits of wood products, timber building systems and innovative solutions for heating, cooling and other energy requirements."*

Procurement officers are encouraged to undertake a comparative assessment of energy efficiency, greenhouse gas emissions and value for money over the lifetime of the project. They may therefore request designers to provide information on these matters in relation to the building materials, construction, and use of the building or other infrastructure (heating and cooling).

In addition, procurement officers are encouraged to consider the construction timeframe as part of the decision making process.



**Top:** Timber provides a modern twist to the Mediterranean Shipping Company's heritage fit-out. Photo Credit: Slavin Architects.

**Above:** The use of wood has created active and engaging spaces for the community to enjoy at Elizabeth Quay. Photo credit: Thom Perry.



## Implementation Guidance

An abundance of information on the benefits of wood and guidance on the use of wood in construction is available from various sources. A short selection is listed below.

- General advice and support with the implementation of the WEP can be sought from the Forest Products Commission. [www.fpc.wa.gov.au](http://www.fpc.wa.gov.au)
- Information on the benefits of using wood, and research demonstrating these benefits, can be found on the websites of Planet Ark [www.makeitwood.org](http://www.makeitwood.org) and Forest and Wood Products Australia [www.fwpa.com.au](http://www.fwpa.com.au).
- The Forest Products Commission has prepared a number of Guidance Notes to facilitate the implementation of the WEP. These Guidance Notes address topics such as energy efficiency and fire safety and can be found on the Forest Products Commission website [www.fpc.wa.gov.au](http://www.fpc.wa.gov.au).
- WoodSolutions has developed Technical Design Guides on a wide range of issues. These guides include information on Building Codes and Standards applicable in Australia and provide technical guidance to ensure that timber-related projects comply with these codes. They cover issues such as Fire Safety, Thermal Performance and Timber in Internal Design, and are freely available at [www.woodsolutions.com.au](http://www.woodsolutions.com.au).

**Above left and left:** Wood was chosen for the Kununurra Court House for its flexibility and link to the local landscape.  
Photo credit: Peter Bennetts Photographer.



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