



## Feature

# ECO is LOGICAL

Celia Kugler, CK Design

The construction industry contributes 60 per cent of the world's total greenhouse gasses. It is not just **eco** but **logical**, to take a pro-active and responsible role in the refurbishment and construction of libraries.

Environmentally sustainable development (ESD), is still in its infancy. There is some confusion about what constitutes an environmentally friendly choice. And how 'eco' are the eco-labelled products on the market? In general, the most important consideration is the reduction of environmental impact through energy efficiency and the use of recycled and recyclable products/components.

Most local and state governments are enforcing higher levels of ESD compliance and performance ratings, but ultimately, it is the client that needs to be fully committed to implement this principle. The additional materials and labour costs involved in ESD solutions can be an issue, but as the demand increases and the market grows, ESD is becoming more economical.

In the new West Ryde Library, there was a unanimous commitment from client and consultants to deliver best practice design, and to make the library as ecologically friendly as possible. The main aim was to help reduce environmental impacts and to create healthier and productive settings, focused on energy efficiency and the use of recycled and recyclable materials.

Energy efficiency and lower running costs were achieved by the use of double glazing, with low-E glass, along the west and south facades to achieve thermal and acoustic insulation, reducing the need for air conditioning. All lighting was fitted with energy efficient lamps and the use of halogen down lights was minimised and specifically used for effect.

Ceiling tiles were selected for their superior acoustic performance and their ESD performance being made from re-



ycled in each choice of finishes. The ESD performance of floor finishes is critical, particularly carpets. These cover the largest areas and are the most frequently changed building components (every 5 to 10 years). Carpet tiles were the best choice. They have a high performance level and reduce maintenance as only small sections need to be replaced. They also allow flexibility of design enhancing the ability to emphasise separate functional areas. The timber floor in the perimeter lounge areas was made from recycled timber, giving it a warmer and more lived-in look.

Although materials can be recycled, it is important to reduce built-in furniture, which is hard to reuse. With the exception of a few items, most of the furniture in West Ryde Library was kept freestanding and modular for easy dismantling and relocation, enabling future reconfigurations and reuse.

Eco-friendly environments are not defined by a particular style; it is the designers' skill that achieves the client's vision without compromising ESD principles.

It is the client's and design professionals' responsibility to lead the way.

*If you would like to know more about the ESD choices made in the West Ryde Library, please contact [cecilia\\_kugler@ckdesign.com.au](mailto:cecilia_kugler@ckdesign.com.au).*



cycled fiberglass. Feature ceiling panels and joinery were made from ECO-ply, lightweight plywood made from fast growing poplar plantation wood.

Product life-cycle, performance and maintenance need to be consid-