

## Strategic planting reduces plantations' impact on groundwater

**New research by a La Trobe University groundwater specialist indicates that strategic placement of tree plantations can boost their commercial value by reducing their impact on water resources.**



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Joshua Dean says plantations can use more water than the rainfall that is available to them, which means they can become a drain on valuable groundwater resources.

‘Growing timber plantations intercept a lot of rainfall that could have otherwise recharged our groundwater aquifers,’ says Mr Dean.

‘As a result we are seeing water levels in these aquifers decline, and therefore less water is available for other industries, including the agricultural sector.’

Mr Dean says the effects of plantations on water resources, combined with fluctuating timber prices on the international market, have hampered the growth of the Australian timber industry.

But he believes that with ‘clever planning, timber companies can “breathe life” back into their plantations, and resurrect Australia’s position in the national and international market’.

‘Recharge of water to our aquifers is not consistent across a landscape. Most of it takes place in very specific areas. If we can identify where this occurs in different types of landscapes, then we know where we can put plantations to minimise their effect on our water.’

For example, on sites he has studied in the Grampians in Victoria’s mid-west, Mr Dean found that recharge occurs in the lower slopes of catchments, which suggests that foresting the upper slopes will have less of an effect on water

levels.

The PhD researcher's work is part of a wider investigation by the National Centre for Groundwater Research and Training into the effects of vegetation and climate on underground water resources.

Source: La Trobe University

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