

# Harvesting in water catchments

## managing resources sustainably

### Balancing two valued resources — Wood and Water

State forests in Melbourne's water catchments provide two highly-valued resources: high-quality wood and clean water.

The mountain catchments provide Melbourne with some of the best quality water in the world.

Similarly, timber harvesting in these water catchments provides economic benefit to regional Victoria.

### 'Closed' versus 'open' catchments

Melbourne's water supply catchments are located in the mountain ranges east of the city. Because Melbourne's water is naturally filtered, preventing possible contamination of water supplies in the catchments is essential. To protect water quality, public access is limited and movement is restricted to particular areas.

The access restrictions were made independently of but considering timber harvesting operations and have to do with preserving Melbourne's water supplies. They exist to safeguard Melbourne's water supply catchments and ensure the highest quality source water.

Melbourne's catchments are managed as a combination of 'open' and 'closed' catchments. A small amount of timber harvesting is permitted in 'open' catchments, subject to a strict range of environmental and scientific controls. Timber harvesting is not permitted in 'closed' catchments which are mainly National Parks.

One difference between 'open' and 'closed' catchments is the level of access. Public access to 'closed' catchments is generally not permitted (access is permitted on certain walking tracks and roads and for some authorised activities). Many of these catchments have been closed to the public for more than 100 years. Similarly, public access to the 'open' catchments is carefully managed, with restrictions on certain activities such as camping and prohibitions on entering certain areas.

### The 'open' catchments are:

- Thomson Catchment — contributing more than 30 per cent of Melbourne's water
- Tarago Catchment — coming online in 2010 through the installation of a water treatment plant, contributing approximately 6 per cent of Melbourne's water supply
- Bunyip Catchment — not currently supplying Melbourne with water
- The Yarra Tributaries — contributing approximately 6 per cent of Melbourne's water supply. Timber harvesting occurs in four small catchments within the Tributaries, these being Armstrong Creek (Main), McMahons Creek, Starvation Creek and Cement Creek. Other small catchments within the Yarra Tributaries include Mick's Creek, Armstrong Creek (East) and Big Flume.

### The 'closed' catchments are:

- Maroondah
- O'Shannassy
- Upper Yarra
- Wallaby Creek/Kinglake.

### Size of harvest areas

Melbourne's water supply catchments cover about 157,000 hectares (ha).

Of this, only a very small area is being logged.

The maximum area that is allowed to be harvested in any one year is 340ha.

In reality, only about 265ha has been logged each year over the past two decades.

### Streamflows

The Victorian Government has completed hydrological studies, so that catchment harvesting policies are informed by sound, up-to-date science.

Timber harvesting impacts on the available water yield due to the high water-use of young, regenerating forests. If logging were stopped immediately it would make little difference to water supplies in the short term, but would have an immediate impact on timber-supply commitments. Furthermore, harvesting is closely controlled to ensure current water yields are not diminished and that the quality of water meets agreed standards.

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### Melbourne's water demand

If timber harvesting were stopped in the catchments, there would not be an immediate increase in water yield.

Based on estimates from modelling, the impact of harvesting on water yield is estimated as approximately 3—5 percent of the anticipated demand by the year 2050 across Melbourne catchments. This impact equates to 15 GL (15 GL equals 15,000ML equals 15,000,000,000L).

The report entitled *'Potential impacts of forest management on streamflow in Melbourne's water supply catchments, Summary report'* by Dr. Russell Mein was prepared as part of the Wood and Water project. The report states that the maximum difference in water yields between the modelled management regimes increases with time but grows to about 16GL per annum in 2050 (based on historic rainfall). Using low ten year average rainfall figures, the yield is estimated from modelling as 15GL in 2050, which is a 5 percent increase in comparison to status quo water yields for the Thomson, Tarago, Bunyip and Yarra Tributaries catchments.

### Clean drinking water

Melbourne's water is among the best in the world. Stringent catchment management ensures safe, healthy drinking water. There is a comprehensive program of water quality testing right from reservoir to the tap, as well as targeted research and a range of treatment options.

Only one of the four Yarra Tributaries catchments is harvested in any one year and water supply weirs are 'turned out' during the timber harvesting months (December to April, inclusive) to protect water quality. This period correlates to the lowest water yielding period and often water is not harvested in this period to maintain minimum environmental flows required downstream.

Water in the Thomson catchment is stored for long periods, and timber harvesting has no discernable impact on drinking water quality. Furthermore, water from the Thomson Reservoir is then transferred first to Upper Yarra reservoir which provides further residence time before reaching supply.

### Protecting old-growth

No old-growth is being logged in the catchments. All old-growth within Melbourne catchments is protected in National Park, Special Protection Zones, or under management guidelines that state that forest originating before 1900 is not available for timber harvesting.

Due to the 1939 bushfires, the majority of the forest within State forests within Melbourne catchments is regrowth forest.

### Alternatives — plantation timber or overseas sources?

The timber available for harvesting in these forests is mostly Victorian Ash, a highly-regarded hardwood valued for uses such as floorboards and furniture. It is not easily replaced. Existing resources of plantation-grown timber are not currently suitable as a substitute.

A ban on harvesting now could result in the loss of over 200<sup>1</sup> direct jobs and further indirect job impacts. These impacts would be felt mostly in Heyfield, Traralgon, Morwell, Dandenong and smaller towns throughout the Central Highlands and Gippsland.

### Further Information:

#### General inquiries

Visit the DSE website [www.dse.vic.gov.au](http://www.dse.vic.gov.au) or call the DSE Customer Service Centre on 136 186.

#### Media inquiries

Contact the DSE Communications office on (03) 9637 8911.

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<sup>1</sup> URS Australia, (2008) *Final Report – Method for conducting a Sustainability Assessment of future management options for State forests supplying water to Melbourne*, prepared for the Department of Sustainability and Environment by URS Australia Pty. Ltd.