



## Draft forest management plan 2014–2023 and water catchments

Water is obviously vital for conservation and for people: Western Australia's south-west forests provide catchment areas for drinking water for most of the State's population, and water sources for recreation and industry.

Surface and groundwater supply, demand for its use and water quality are all discussed in the Draft plan. Measures are included to maximise water availability and maintain water quality.

Records show rainfall has been declining in the south-west since the 1970s and this has had a cumulative impact on streamflow and groundwater levels. Annual streamflow, for example, for the period 2004-2009 was 12 to 50 per cent less than the 1975-2003 average.

At the same time, population growth, mining, agriculture and horticulture are expected to drive increased demand for water over the life of the next forest management plan. This growth will also mean increased demand for recreation in public drinking water catchments.

A 2009 study by the CSIRO looked at the sustainable water yield for south-west Western Australia from Gingin Brook north of Perth, to Albany, and groundwater resources between the Perth Basin, north-east of Geraldton, down the west coast and across to Albany. This study found the available surface water supply by 2030 was expected to drop around a quarter from the period 1975-2007, and groundwater supply was also expected to drop by around three per cent.

The Draft plan proposes changes to silvicultural practices following a review by an expert panel completed in 2011. (Silviculture is the term for managing forests to meet specified objectives. One conservation objective, for example, is met by requiring mature trees to be left standing in harvested areas to provide habitat for wildlife.)

The changes proposed include 'silviculture for ecosystem health' to thin vegetation to increase the water available to key areas that depend on surface water, such as important wetlands.

The Draft plan also seeks feedback on the options of no change to the current treatment of forested catchments, or applying 'silviculture for water production' to increase water supply in selected higher rainfall portions of the Wungong, Serpentine, South Dandalup, Harris, Canning, Stirling and Samson dam catchments. This is aimed at meeting social and economic needs, but would also benefit ecosystem health.

The maximum area that could be thinned under the second option is about 65,500 hectares, over a period longer than the term of the next forest management plan. However, modelling for the plan assumes that this area is all thinned in 10 years, and indicates that this would provide an extra 22 gigalitres a year on average for the first decade, and an extra 45 gigalitres a year after that with ongoing forest management.

Catchment management plans will be required where any proposal seeks to reduce stand density below that provided for in the relevant silviculture guideline, or where a proposal would change a large proportion of the forest in the catchment to young trees, which may have greater water use than older stages of development. Approved catchment management plans will be made available publicly.

Historically, the main risk to water quality in forested catchments was rising groundwater, which dissolved salt stored in the soil and brought it to the surface. However, groundwater levels are falling in the Department of Environment and Conservation's (DEC) Swan and South West regions and parts of the Warren Region because of reduced rainfall.

The Draft plan therefore proposes removing measures previously introduced to minimise the risk of rising groundwater levels in these areas. Monitoring of groundwater levels will continue to identify any changes if there was a return to a wetter climate.

Additional measures are proposed for areas that remain a high salt risk, including more stream buffers and limits to the intensity and extent of timber harvesting.

Timber harvesting will continue to be excluded from informal reserves along streams and rivers to protect water quality. These informal reserves also provide a network of undisturbed corridors through the forest for wildlife.

The Draft plan also proposes that the Conservation Commission, in consultation with DEC, develop a position statement to give guidance when proposals to take water from land within the plan area are considered.

Planning and development of recreation and tourism facilities and services in the plan area will continue to involve integration with other forest planning and management activities at whole of forest, regional and local scales.

Management of recreation in public drinking water catchments in forested areas covered by the plan is undertaken cooperatively between DEC, the Department of Water, the Water Corporation and other water utilities.

The *Draft Forest Management Plan 2014-2023* is available at [www.conservation.wa.gov.au](http://www.conservation.wa.gov.au) and is open for public comment until 7 November 2012.



Department of  
Environment and Conservation

