



Draft Forest Management Plan 2024–2033

Fact Sheet: Forest health



A healthy forest is one in which the natural processes that have sustained all components of the ecosystem continue.

In September 2021, the State Government announced the major policy initiative to cease large-scale commercial native timber harvesting and to increase the conservation reserve system in south-west forests. One of the key drivers for this policy is the importance of maintaining biodiversity and forest health.

Pressures on forest health include pest animals, weeds, disease, climate change, habitat loss and fragmentation and altered fire regimes.

‘Forest health’ can mean different things to different people. To some it may be about vigorous ‘well-formed’ trees to enable a supply of wood products. To others it may be about a diversity of plants, animals, fungi and micro-organisms. A common feature of most visions of forest health is that forests are dynamic. Natural disturbances impact forests at various scales, leading to changes in forest ecosystems.

What does a healthy forest look like to you?

Responses from the pre-draft public survey:

- ‘A healthy forest to me has a range of different aged trees in particular old growth trees. There is a healthy and varied range of understory trees and shrubs, varied native flower types and limited introduced species and disease damage.’
- ‘A forest where humans have not cut logged/burned/mined/introduced invasive flora & fauna. One with understory, middle story and a top canopy housing animals on every level. It is the forest that stops you in your tracks, where you can feel the forest breathing, where you are completely absorbed spiritually, visually, in awe of nature’s beauty.’

The Draft *Forest Management Plan 2024-2033* includes the definition from the 2022 independent silvicultural review: “a healthy forest is one in which the natural processes that have sustained all components of the ecosystem continue”.

Forest managers often use the concept of the pre-European forest as a guide to the desired condition for our south-west forests.

The characteristics of the pre-European forest include:

- mixture of tree ages and sizes in a particular stand (a group of trees or patch of forest that can be distinguished from other groups)
- mosaics of different types of stands across the landscape (species, ages, density)
- free of introduced pests, weeds and diseases
- fire regimes
- minimal human disturbance.

Resilience is an important component of forest health and is the ability of the forest to recover from major disturbance and stressors. In the pre-European forest those stressors are likely to have been weather-related events such as storms, floods and heatwaves, lightning fires as well as Aboriginal burning of country.

Since European settlement, forest health has been affected by many pressures including clearing and fragmentation, disease, introduced plants and animals, climate change and a fire regime that differs in scale and intensity from pre-European fire regimes. Any one of these pressures can have negative impacts on forest health, but in reality, multiple pressures are likely to interact which may limit the forest’s capacity to recover. This may lead to shifts in species composition and structure and given the challenges of a warming and drying climate, the wetter areas of the forest ecosystem are considered at very high risk.

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Maintaining forest health requires active management given the long history of cumulative human impacts on our forests. Active management approaches may involve:

- ecological thinning
- feral animal control, such as protecting wildlife from cats and foxes
- disease management, including hygiene and treatment measures
- regulation of disturbance, for example infrastructure development
- prescribed fire based on the ecological requirements of ecosystems, Noongar practices and the need to protect communities
- weed control
- rehabilitation of disturbed areas
- managing visitor use
- biosecurity, the prevention of new diseases, pests and weeds entering the area
- enforcement related to unauthorised activities.

An important factor affecting forest health is that areas of State forest have been managed for timber production, leading to stands of dense, overcrowded, re-growth forest. The original management intention was that these forests would be progressively thinned to allow trees to grow and mature. If left as very dense stands, competition for resources would result in trees declining in their condition, making them more vulnerable to pressures such as disease and fire. Also, those even-aged stands of smaller trees have lower value as fauna habitat than diverse-aged stands.

Forest health components

Physical condition	Composition and biodiversity	Structure and habitats	Function and processes
Soil condition: physical and chemical properties in natural state Ground water and surface water: water balance and quality at natural levels	Dominated by native species and natural communities Threatened species and communities are conserved	Range of tree age classes: young, mature, old-growth Range of structural classes: understory, midstory, overstory Natural tree density Variety of ecosystem and habitat types	Maintain natural growth rates – primary productivity Stable or increasing biomass Soil ecology and nutrient cycling maintained Carbon capture and storage optimised Water cycle maintained

Further reading

A report on silvicultural guidelines for the 2024-2033 Forest Management Plan to the Western Australian Government available on the Forest Management Plan page www.dbca.wa.gov.au/parks-and-wildlife-service/forests/forest-management-plan

The management of Western Australia's south-west forests will be outlined in the *Forest Management Plan 2024-2033*.

For more information visit our website at dbca.wa.gov.au/forest-management-plan