Indicator 4.1a: Area of forest managed primarily for protective functions (2026)

The area of forest land where priority is given to protecting soil and hydrological functions provides an indication of the emphasis being placed by society on the conservation of these values. This indicator includes areas managed to protect soil and water by excluding incompatible activities.

Context

Soil and water are fundamental components of a forest ecosystem. Forests contribute directly to soil production, maintenance and protection, and provide and protect water including for high-quality water supplies.

Key points

- A total of 37.0 million hectares (28%) of Australia's forest is managed for protection of soil and water values, most of which is native forest.
- The area of forest managed primarily for protection of soil and water values includes formal nature conservation reserves, informal reserves in multiple-use public native forests, forests protected by prescription and forested catchments managed specifically for water supply.
- There are 1.2 million hectares of forest on land managed exclusively to supply water for human or industrial use.
- There has been a slight increase in the area and proportion of forest managed for protection of soil and water values since the last report in 2018.

Area of forest managed for protective functions

Forests are vital for soil conservation, preventing soil erosion, protecting water supplies and maintaining other ecosystem functions. Relevant state and territory regulations and guidelines that provide for sustainable forest management are designed to minimise soil erosion (Indicator 4.1b), protect soil physical properties (Indicator 4.1c), manage activities that could affect water yields and quantity (Indicator 4.1d), and manage risks to water quality (Indicator 4.1e). State and territory-based processes are also in place to monitor and ensure compliance with measures that protect forest soil and water resources.

A total of 37.0 million hectares of forest is managed for protection of soil and water values, and comprised largely of native forest with smaller areas of commercial plantations and other forest. This is 28% of Australia's total forest area of 133.6 million hectares (Table 4.1a-1), and represents an increase in both the area and proportion reported in Australia's State of the Forests Report 2018 (36.6 million hectares and 27%, respectively).

The area of forest managed primarily for protection of soil and water values includes formal nature conservation reserves, informal reserves in multiple-use public forests, forests protected by prescription (such as steep slopes, erodible soil types and riparian (streamside) zones where harvesting and road construction are not permitted), and forested catchments managed specifically for water supply.

Table 4.1a-1: Area of forest managed primarily for protective functions including protection of soil and water values

Year	Forest area ('000 hectares)									Total forest area ('000 hectares)	Proportion of total forest
	ACT	NSW	NT	Qld	SA	Tas.	Vic.	WA	Total		
2021	121	6,114	6,743	8,891	2,688	2,098	4,851	5,510	**37,016**	133,562	28%

Forest area derived from *Forests of Australia (2023)* spatial dataset.
Area figures for the Australian Capital Territory, New South Wales, Tasmania, Victoria and Western Australia are for total forest in the comprehensive, adequate and representative (CAR) reserve system on public and private land. The CAR reserve system on public land comprises dedicated formal reserves, informal reserves, and areas where forest values are protected by management prescriptions (see Indicator 1.1c Area of forest in protected area categories – Supporting information).
Area figures for the Northern Territory, Queensland and South Australia are the area of forest in Australia's National Reserve System (NRS), International Union for Conservation of Nature (IUCN) protected area categories I to VI (see Indicator 1.1c Area of forest in protected area categories – Supporting information).
Source: ABARES; National Forest Inventory; Collaborative Australian Protected Areas Database 2020, Australian Government Department of Climate Change, Energy, the Environment and Water; state and territory data.
Click here for the *Forests of Australia (2023)* dataset.
Click here for a Microsoft Excel workbook of the data for Table 4.1a-1.

[This section was published in October 2024.]

Area of forest managed specifically to supply water for human or industrial use

A total of 1.2 million hectares of forest is on land managed exclusively to supply water for human or industrial use (Table 4.1a-2). This area is largely on publicly owned land but includes private land managed by government agencies for the purpose of protecting water resources. This includes forests within protected or closed reservoir catchments, water source areas, water reserves and other areas managed specifically for the supply of water. These forested areas are regulated by legislation, with public access and activities generally restricted. Disturbance activities, such as wood harvesting, are minimised to maintain water quality and quantity values.

Table 4.1a-2: Area of forest in areas managed specifically to supply water for human or industrial use

Year	Forest area ('000 hectares)									Total forest area ('000 hectares)	Proportion of total forest area
	ACT	NSW	NT	Qld	SA	Tas.	Vic.	WA	Total		
2021	44	327	12	n.a.	1	n.a.	91	681	**1,157**	133,562	0.9%

n.a., not available
Totals may not tally due to rounding.
Source: Forest area derived from *Forests of Australia (2023)* spatial dataset, water source areas from state and territory data.
Click here for the *Forests of Australia (2023)* dataset.
Click here for a Microsoft Excel workbook of the data for Table 4.1a-2.

- In the Australian Capital Territory, 44 thousand hectares of forest managed for water consumption are in the Cotter River Catchment, which is largely within Namadgi National Park.
- In New South Wales, 327 thousand hectares of forested land occurs within the 364 thousand hectares of protected and special areas in the Greater Sydney catchment areas managed for water consumption. Public access and activities are restricted within these areas under the *Water NSW Act 2014*. This includes forest on all tenure classes, including private land owned by the NSW government and managed by WaterNSW to protect water quality and quantity.
- In the Northern Territory, 12 thousand hectares of forest are within the Darwin River Dam and Manton River Dam catchments, which are the primary and emergency water supply catchments for Darwin.

- Information is unavailable on forest on areas in Queensland regulated specifically for the supply of drinking water. However, there are 23 major catchment areas that are managed for multiple uses, including the supply of drinking water. Southeast Queensland's catchments cover about 1.2 million hectares in supplying drinking water to Brisbane and surrounding areas of southeast Queensland[1].
- In South Australia, 1 thousand hectares of forest are within the 10 catchments in the Mount Lofty Ranges Catchment area that supplies water to Adelaide and surrounds.
- In Tasmania, there is no statewide area figure available for forest in catchments explicitly managed for water harvest, however two reserves contain explicitly recognised drinking water catchments to supply Hobart and surrounds. The Lake Fenton/Lady Barron Creek drinking water catchment covers 1,530 hectares of Mount Field National Park and part of Wellington Park is also specifically set aside and managed as a drinking water source (FPA 2022).
- In Victoria, 91 thousand hectares of forest are in catchments that supply water to Melbourne. These areas are protected, with disturbance activities excluded. An additional 8.3 million hectares of land is within catchments managed for the supply of water; however, disturbance activities are not excluded within these catchments.
- In Western Australia, 681 thousand hectares of forest are within public drinking-water source areas, including both protected catchment areas and the water recharge areas of groundwater sources.

[This section was published in April 2026.]

References

FPA (2022). *State of the forests Tasmania 2022: Data report*. Forest Practices Authority, Hobart, Tasmania.

[1] seqwater.com.au/catchments

More information

Learn more about Criterion 4 of Australia's State of the Forest Report.

Web agriculture.gov.au/abares/forestsaustralia/sofr/

Download a Microsoft Excel workbook of the data presented in Indicator 4.1a.

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Acknowledgement of Country

We acknowledge the Traditional Custodians of Australia and their continuing connection to land and sea, waters, environment and community. We pay our respects to the Traditional Custodians of the lands we live and work on, their culture, and their Elders past and present.

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