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Department of Biodiversity,  
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## Prescribed burning



### What is prescribed burning?

The Parks and Wildlife Service at the Department of Biodiversity, Conservation and Attractions (DBCA) undertakes prescribed burning to reduce excess fuel loads to minimise the impact of devastating bushfires on communities and conservation values and to achieve land management objectives.

Prescribed burns are carefully planned and controlled, and are based on science to tailor burning for specific objectives and outcomes.

On any given day, prescribed burns may be conducted by multiple government agencies and private landowners, as part of our shared responsibility for keeping communities safe.

### Why does the Parks and Wildlife Service carry out prescribed burns?

Prescribed burning is conducted for a number of purposes:

- to mitigate the risk and severity of bushfires and to help protect lives, property and infrastructure by reducing the build-up of flammable vegetation and ground fuels.
- to maintain biodiversity and habitats
- to rehabilitate vegetation after disturbance, such as timber harvesting and mining
- to undertake research on fire and its interactions with our environment.

### How are smoke impacts on communities minimised?

Every effort is made to minimise smoke impacts. Each day, informed decisions are made on whether to burn, which areas to ignite and how much to ignite, based on potential smoke impacts in populated areas.

When deciding whether to carry out a prescribed burn, the Parks and Wildlife Service works closely with the Bureau of Meteorology to predict the direction of smoke and which areas will be affected by concentrations of smoke.

Unfortunately some smoke is unavoidable. On occasions, high concentrations of smoke cause temporary discomfort to some people and reduce their enjoyment of some activities.

HealthDirect Australia can provide further information on the potential impacts of smoke. Contact the 24-hour Freecall number **1800 022 222** for immediate assistance.

Also visit [dbca.wa.gov.au/prescribedburning](http://dbca.wa.gov.au/prescribedburning) to read more about smoke management.

### What is involved in prescribed burning?

Prescribed burning involves careful planning, professional expertise, consultation and monitoring, including:

- determining what vegetation needs to be burnt and what needs to be left unburnt (to create a mosaic), the desired fire intensity and the season
- considering the history and variety of past fire events over the landscape
- studying and measuring the quantity, arrangement and moisture content of fuels
- determining, monitoring and forecasting the right weather conditions for igniting a burn, using knowledge about fire behaviour
- determining the best time of day to ignite a burn in a specified pattern and sequence to achieve the desired outcomes and to minimise the risk of escapes
- monitoring the results of a burn to determine how well the operation met the objectives set and using knowledge gained to improve future prescribed burning operations.

All of this is underpinned by a rigorous risk management assessment and burn approvals process.

**Prescribed burning is conducted to reduce excess fuel loads and minimise the impact of devastating bushfires**

### Who is involved in prescribed burning?

In Western Australia, prescribed burning is a shared responsibility. DBCA's Parks and Wildlife Service is responsible for prescribed burning on land that it manages. Fire personnel consult with, and work effectively alongside, the community, Department of Fire and Emergency Services (DFES), local governments and industries such as grape growers and other landholders. Where feasible, DBCA, DFES and local governments may conduct prescribed burning programs in a collaborative and joint manner. Different terms are used by different stakeholders for prescribed burns, such as 'controlled' or 'planned' burns and 'burn offs'.





## When does burning occur?

In some regions, prescribed burning takes place in spring and autumn when weather conditions are cooler and more stable, and vegetation and fuels are in a suitable state to enable the desired outcomes to be achieved.

In the Kimberley, which has distinct wet and dry seasons, burning is mostly conducted from March to June (late wet to early dry season), when winds are more predictable and the vegetation is not fully cured. Prescribed burns conducted at this time tend to have relatively low intensity, are patchy and limited in extent, and night conditions are often conducive to burns self-extinguishing.

## Is prescribed burning safe?

Community safety is the department's primary concern when carrying out prescribed burns. Prescribed burning depends on complex factors which have inherent and associated uncertainties; therefore, there is always an element of risk associated with burning. Each prescribed burn is carefully planned, peer-reviewed and must pass a rigorous approvals process before any ignitions can commence.

## How does the Parks and Wildlife Service manage the risk of escapes?

DBCA's Parks and Wildlife Service, through decades of scientific research and operational experience, implements procedures to minimise the risk of potential escapes and ensure continual improvement. The department applies deliberate and proactive risk management to keep the risks associated with prescribed burning as low as reasonably practicable, and its practices and processes are aligned with the International Standard ISO 31000 for risk management. The Western Australian Government, through the Office of Bushfire Risk Management (OBRM), endorses this approach and maintains ongoing oversight.

## Is prescribed burning effective?

Yes. Scientific research shows that prescribed burning is very effective for managing bushfire risk, as fire behaviour is directly affected by the amount of available fuel. Therefore, bushfire suppression is more likely to succeed and is safer where fuel loads and fire intensities are lower and where fires run into recently burnt areas.

The special inquiry report of the *2011 Perth Hills bushfire 'A Shared Responsibility'* highlights an example of the effectiveness of prescribed burning. *"The reduced fire intensity and rate of spread observed when bushfires enter a reduced fuel area allows firefighters greater opportunity to effectively combat the fire and to limit its impact. In fact, the Special Inquiry heard evidence that the Roleystone-Kelmscott fire was extinguished on one front when it*



*entered a section of the Banyowla Regional Park that had been the subject of a prescribed burn by DEC (predecessor to the Department of Biodiversity, Conservation and Attractions) four years ago."*

The 2011 Perth Hills bushfire caused serious damage, but the destruction in this fire-prone area was limited by prescribed burns undertaken previously at strategic locations. While prescribed burning will not eliminate large, damaging bushfires, their likelihood will be reduced and opportunities for safe and effective suppression will be greatly enhanced.

## What techniques are used for prescribed burning?

The DBCA's website details how the department carries out prescribed burns [dbca.wa.gov.au/prescribedburning](http://dbca.wa.gov.au/prescribedburning)

## Where can I find out more?

For further information, including what prescribed burning is happening in your area today, contact your local Parks and Wildlife Service/DBCA office; or visit [dbca.wa.gov.au/todayburns](http://dbca.wa.gov.au/todayburns)

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