

Prescribed burning

Using fire to manage native vegetation



Government
of South Australia

Department for
Environment and Water





Prescribed burning

Prescribed burning requires careful management. The right combination of fuel load, fuel moisture, temperature, relative humidity and wind speed is needed for a prescribed burn to be conducted safely and effectively.

This limits prescribed burning to short periods during spring and autumn, and only on certain days when conditions are suitable. In some cases, weather conditions may permit burning during summer or winter.

Before every burn, DEW carefully assesses the conditions in order to manage any risk factors, and always ensures that appropriate back-up resources and fall-back positions are available.

DEW takes the necessary precautions to minimise the spread of Phytophthora root rot. It is an important priority when conducting prescribed burns.

DEW works in close partnership with the CFS, ForestrySA, SA Water and the Metropolitan Fire Service to reduce the impact of bushfires across the landscape. DEW has a skilled team of fire specialists who operate as a brigade of the CFS during prescribed burns and bushfires.

Using fire

The Department for Environment and Water (DEW) uses prescribed burns to reduce fire fuel hazards, manage native vegetation and protect biodiversity in strategic areas in South Australia.

Making it easier to fight bushfires

Fire is a natural part of the South Australian landscape, and even the best fire prevention activities cannot stop bushfires occurring during extreme fire weather events. However, reducing fuel loads has been proved to reduce the speed and intensity at which a bushfire burns, which can reduce the risk of damage to homes, buildings and biodiversity.

Helping promote biodiversity

Prescribed burning is also used to achieve ecological outcomes such as the protection and maintenance of animal habitat, regeneration of plant species and enhance biodiversity.

Many native plants are reliant on fire for regeneration, and as a result many plants grow quickly after fire from either seed germination or re-sprouting buds from under their bark or roots.

Some species of native animals prefer regenerating vegetation after fire while others like long unburnt habitat. Prescribed burning manages the landscape so that there are a mix of habitats to conserve all species.

Prescribed burning can also be used as a tool to aid in controlling some weeds species.





Plants and animals

Before every prescribed burn, DEW assesses the potential impact on native animals and plants, and ensures habitats are available for animals to move into until the original habitat regenerates.

Prescribed burns are confined to a planned area and are not as severe as a bushfire. Many small animals and reptiles survive by hiding in the soil, under rocks or under logs. Birds can fly to unburnt areas and, given prescribed burns move relatively slowly, many mammals like possums and bandicoots have time to move into unburnt areas.

DEW's fire management practices strive to ensure that there are habitats available to all of the species that occur in prescribed burn areas.

Planning and management

Deliberately using fire to manage vegetation requires planning and management.

In order to plan a prescribed burn, the correct intensity of the fire, the burn size, the season in which the burn is undertaken and the interval between fires all need to be considered. This is called the 'fire regime'.

Different fire regimes can be used to achieve different outcomes. Two fires in quick succession may be used to reduce fuel and the fire threat to homes and infrastructure, but may prevent some species of plants from regenerating. Fire exclusion for a very long period means some plant species that need disturbance to stimulate regeneration, do not get a chance to regenerate.

Other outcomes, such as weed control or biodiversity management, also require different fire regimes. For example, parks are zoned for different priorities in DEW's Fire Management Plans - asset protection zones, buffer zones and conservation zones.

In asset protection zones, DEW can burn to reduce fuel hazard. In buffer zones, the goal is a reduction in fuel hazard plus the maintenance of biodiversity. In conservation zones, any burning done will aim to maintain or restore the habitat of the species living in that area.



**For more information on this topic contact
the Fire Management Officer in your Region.**

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Contact the Fire Management Branch
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