

How do we protect remote communities from bushfires?

Key Points

- Bushfire intensity is determined by the rate of spread of the fire, the fuel consumed and the heat yield of the burning vegetation.
- Use appropriate building standards that are aligned with the vegetation type, structure and heat yield.
- Ensure your house has the best bushfire protection by conducting routine maintenance, construction or retrofitting of your home to meet the *Australian Standard 3959—Construction of buildings in bushfire-prone areas*; and addressing bushfire risks in accordance with the *Planning for Bushfire Risk Management Guidelines*.

Definitions

- * **Fireline intensity** is the rate of energy release per unit length of the fire front expressed in kilowatts per metre (kW/m).
- **Fire suppression** is the activities connected with restricting the spread of a fire following its detection and before making it safe.

There are four elements to protecting a community from bushfires. They are:

1. Appropriate building standards that are aligned with the vegetation type, and its structure and heat yield.
2. Maintaining a building protection zone.
3. Developing and maintaining an appropriate hazard separation zone.
4. Maintaining an extended managed fuel zone.

Appropriate building standards

Appropriate building standards are essential to ensure that a home will withstand the impact of any future bushfire. When a building is associated with a pasture grass type of fuel, the level of construction protection required is significantly less than when the building is adjacent to a forest environment.

Whilst building construction standards can be minor for homes adjacent to grass fuels, there is still a need to ensure that the homes are protected from embers entering the building. Publications such as *Planning for Bushfire Risk Management Guidelines*, *Australian Standard 3959—Construction of buildings in bushfire-prone areas* and *The Homeowner's Bushfire Survival Manual* are good sources of information.



The building protection zone

Maintaining the building protection zone is essential to ensure that the buildings will not be subject to direct flame contact, and the impact of radiant heat is reduced. Maintaining a low fuel load of 2 tonnes per hectare or less around buildings will increase their chances of surviving a bushfire.

Your circle of safety

In the building protection zone, some of the things you can do to protect your community are:

- Maintain a minimum gap of 2 metres between trees and buildings.
- Place shrubs 3 times their height at maturity away from buildings.
- Keep the grass short.
- Ensure trees and shrubs do not have elevated dead material within the crowns.
- Remove surplus vegetation from around buildings.
- Ensure shrubs are not planted in clumps.

For more information, see the DFES *What is the building protection zone?*

*Information sourced from *Planning for Bushfire Risk Management Guidelines, 2014 (Draft)*. Information refers to Jarrah or Marri dominated forest and woodland.

Develop and maintain a hazard separation zone

Develop and maintain a hazard separation zone and managed fuel zone so that any fire that approaches the building will be reduced in intensity the closer it gets to the building. The hazard separation zone should extend 80 metres from the building protection zone (particularly adjacent to forest and woodland) and located within the boundaries of the property in which the buildings are situated. The fuel load should be kept to between 5 and 8 tonnes per hectare.* If the amount of fuel around your property is reduced, a bushfire will burn more slowly and generate less intense heat. This will reduce the impact of the bushfire on life and property and assist fire managers in suppressing the bushfire.

Maintain an extended managed fuel zone

The managed fuel zone is an extended zone radiating out from the community buildings for up to three kilometres. This distance depends on the vegetation structure and type, and the community needs. This zone is designed to maximize community protection from bushfires by maintaining a fuel load that is continuously reduced as the fire travels closer to the community. This systematic fuel management will provide significant community protection.



Above: This community is at risk from a bushfire because of the bushfire fuels close to the buildings and the construction standards not aligning to the *Planning for Bushfire Risk Management Guidelines* and *Australian Standard 3959—Construction of buildings in bushfire-prone areas*.

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