06

Backburning

Background

Backburning is a fire suppression technique used in the control of bushfires. A backburn is a fire lit close to the edge of an active bushfire, which burns out the fuel between the bushfire and an established control line. The removal of fuel halts the fire's spread, providing suitable conditions for firefighters to finish suppressing the fire.

Backburning is often confused with fuel-reduction burning. Although the outcome is similar (the removal of fuel through fire) the strategies and techniques are different. Fuel-reduction burns (which can also be referred to as controlled burns, planned burns, prescribed burns or hazard-reduction burns) are carried out in a planned way, under a predetermined set of weather conditions. Backburning is conducted as part of a bushfire response, and is carried out under a wider set of weather parameters.

Backburning from good fire breaks may be the only option to safely prevent the spread of a large or intense bushfire. Using already constructed firebreaks can save time and limit environmental disturbance.

Photo: Chris Emms

Challenges

Backburning can be risky as it involves lighting fires under conditions suitable for bushfires. Risks include injuries to firefighters as well as the risk of escape. An escaped backburn will add to the size of the bushfire requiring containment.

To be done safely, backburning requires personnel with significant experience as well as a large number of resources.

Backburning requires a fire break, from which it can be lit. Fire breaks can include tracks or water bodies, paddocks and other natural features, including rocky outcrops or moraines. If no existing hard edges exist in the vicinity of the fire it may be necessary to create one with a bulldozer. The issues around the use of machinery in the Tasmanian Wilderness World Heritage Area (TWWHA) are discussed in a different issues paper. Hand tools can also be used to create an edge for a backburn if machinery cannot be used. The use of hand tools is slower, and can be riskier as the fire break will tend to be narrower. Occasionally, wet forest edges can be used as an edge to burn from, particularly early in the bushfire season. Aerial ignition is used to support backburning, particularly when the fire front is some distance from the backburn.

Backburning can be highly effective, but is risky. As such, there is a tendency for backburning not to be undertaken even though it may be the only feasible option to control a bushfire. Furthermore, as there is a general consensus that incident management teams should keep the size of bushfires as small as possible, the prospect of increasing the size of a fire is not often welcomed.

Planning a backburn requires time, so identifying opportunities for backburning needs to occur early on during a bushfire response. In addition, when developing protection plans for natural or cultural assets, the conditions under which backburning may be feasible should be included. On-ground preparations may also increase opportunities for backburning.

Suitable weather is required for the duration of the backburn, and these weather opportunities need to align with other operational aspects, such as adequate resourcing of firefighters to conduct the backburn.

The way forward

While there are many challenges to backburning, the Parks and Wildlife Service will continue to utilise backburning as a bushfire suppression option within the TWWHA. There are opportunities for the TWWHA Fire Management Plan to provide a clear intent in regard to supporting backburning, and specifying conditions under which backburning should be undertaken to minimise the risk (e.g. minimum personnel levels, experience, approval prior to backburning, etc).

The TWWHA Fire Management Plan will also highlight the development of protection plans, which will include backburning options and conditions under which those backburns could be undertaken.

OTHER ISSUES SHEETS THAT MAY BE OF INTEREST

07 Use of aircraft

09 Use of machinery

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