

BushBroker®

Standards for management – Ecological burning

Information sheet No. 14

Fire is a natural part of many of Victoria's ecosystems and important for maintaining biodiversity over time. Ecological burning can be used to manage a particular plant species, vegetation communities and/or native animal habitat.

Under BushBroker, fire will only be considered as a management tool in Ecological Vegetation Classes (EVCs) where regeneration is dependant on episodic fire events.

Fire is not usually required to promote recruitment in EVCs that exhibit a continuous recruitment strategy. For more information on the recruitment strategy of an EVC of interest, please refer to the EVC's benchmark description or talk to your BushBroker Project Officer.

For sites where recruitment is largely dependant on fire, the BushBroker Project Officer will consider a number of additional factors to determine whether ecological burning is appropriate for the site and if so, at what timing and frequency.

Fire history

The floristic composition of remnant native vegetation reflects in part the management history of the site over many years. In general, where a site has had a history of fire then ecological burning may be considered as an appropriate on-going management tool under BushBroker to maintain the quality of the vegetation over time.

It should be noted that in some cases, higher fire frequencies (such as for fuel reduction burns) may have had a negative impact on the quality of the native vegetation. This vegetation may benefit from excluding fire from the site for a period of time to allow elements of the native vegetation to recover, mature and set seed.

Current natural regeneration

The BushBroker Project Officer will assess the current levels of recruitment on the site to determine whether fire is an appropriate management tool during the BushBroker

Landowner Agreement (Landowner Agreement) period.

If regeneration is occurring (i.e. there are seedlings and saplings on the site) fire will most likely not be required. If there are mature specimens on the site but an absence of regeneration, particularly from those species which recruit from seed following a fire, an ecological burn may be appropriate.

Typical genera which can be used as indicators for such purposes include wattles (*Acacia spp.*), members of the proteaceae family (e.g. *Banksia spp.*, *Grevillea spp.* and *Hakea spp.*) and members of the pea family (e.g. *Pultenaea spp.*).

Fire frequency

Consideration will be given to the history of fire frequency on the site and the desirable frequency of disturbance for the relevant EVC. For example, the desirable period between fire events in Shrubby Foothill Forest in the Gippsland Plain bioregion is approximately 30 years. Therefore, under BushBroker, fire will not generally be required as a management tool on a site with this EVC that has been subject to a fire event in the past 30 years.

Other EVCs such as Plains Grassland in the Victorian Volcanic Plain bioregion may require more frequent disturbance. Some grasslands may need to be burnt at least once every five-years.

Timing

In general, the most appropriate time to burn is late Autumn to Spring when the weather is mild, increasing the chance of a low intensity burn. However, certain site attributes may require that burning be conducted at a different time of year. Examples include the presence of key plant and animal species that may be adversely affected by fire at certain times.

For example, Striped Legless Lizards may be severely impacted by a spring fire as there may be no cracks in the soil available at this time of year for them to avoid the heat of a fire.

Similarly, spring flowering native plants generally respond better to fires after the plants have set and distributed their seed in mid to late summer. This may also be the only time that there is sufficient dry matter to carry a fire.

Spring burning may be useful with very weedy sites to reduce weed seed-set, where follow up weed control (post-fire) is also planned.

The local Department of Sustainability and Environment (DSE) and/or the Country Fire Authority (CFA) may be able to provide advice on the most appropriate time to conduct an ecological burn at a particular site for ecological effectiveness and safety.

Patch burning

Rather than conducting an ecological burn across an entire site at the same time, different patches within the site should be burnt in different years. This will create a mosaic of different vegetation age structures across the site.

This approach will provide refuge areas for animals to escape from the fire, and unburnt areas from which plants and animals can recolonise the burnt area. In addition the impact of the fire could be determined by monitoring burnt and unburnt areas over time.

Firebreaks

Where possible, firebreaks should be established outside the site and slashed rather than cultivated or sprayed to minimise disturbance of native vegetation. Fire prevention activities should comply with local planning controls and the Landowner Agreement.

General guidelines

You should maintain detailed records of each burn, associated site management and monitoring of the fire response annually using photo points. Where possible, monitoring should be conducted across both burnt and unburnt areas.

Fire management and weed management are directly related. Targeted weed control should be conducted in the period following the fire.

Where possible, foams or other wetting agents should not be used when undertaking ecological burns, to avoid the addition of chemicals onto the site.

Before undertaking an ecological burn contact your local council for information regarding any permit requirements. The local CFA may be able to provide advice or assistance with burning sites and fire control.

Health and safety

You are responsible for ensuring all works required in implementing the management actions are conducted in a safe manner and comply with the lawful requirements of any Authority, and with all Acts, regulations and other laws which may be applicable to the Landowner Agreement.

To determine whether there are any underground pipes or cables on your property, you may wish to consider calling 1100 - "Dial before you dig". This is a free referral service from anywhere in Australia.

Further information

For further information on BushBroker, please contact the DSE Customer Service Centre on **136 186** or visit the DSE website at: www.dse.vic.gov.au/nativevegetation. All BushBroker Information Sheets are available on the website.

BushBroker is a registered trademark of the State of Victoria (Department of Sustainability and Environment)
Published by the Victorian Government Department of Sustainability and Environment, Melbourne, September 2009
© The State of Victoria Department of Sustainability and Environment 2009
This publication is copyright. No part may be reproduced by any process except in accordance with the provisions of the *Copyright Act 1968*.
Authorised by the Victorian Government, 8 Nicholson Street, East Melbourne
Printed by Stream Solutions
ISBN 978-1-74242-181-0 (print - set)
ISBN 978-1-74242-182-7 (online - set)

For more information contact the DSE Customer Service Centre 136 186

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.