

Burning Questions: Fire in Natural Areas

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Abstract

Managing fire to protect people and human assets, and managing fire for ecological objectives are often seen as being in opposition. But does it have to be this way? The critical question is, how can we best build resilience, and learn to live with and manage fire for the long term wellbeing of our communities without further diminishing the damaged ecological systems on which we all depend?

The National Parks Association (NPA) of New South Wales considers that ecological resilience must be a basic obligation for managers of conservation lands. Fire is an important lever for influencing the nature of our national parks and other reserved lands that are a cornerstone for biodiversity conservation in an increasingly modified and fragmented landscape.

The presentation highlights elements from an updated position paper that NPA is now finalising, drawing on experience as an actively involved participant on bushfire issues since its establishment over 50 years ago.

Key aspects include: acknowledgement of government agency obligations to minimise risk to human life and property as a priority, the need for open and accountable transparency of decision making; more effort to improve the resilience of communities in the face of fire threats; and recognition that within a framework of bushfire management across tenures land managers have differing priorities such that conservation reserve managers are expected to ensure the ecological imperative in core natural areas with high impact fire management limited to the boundaries where compromise is inevitable.

INTRODUCTION

National parks, reserves and other natural bushland areas are landscapes and habitats for the diverse plants and animals that represent the nature of Australia; they are precious and irreplaceable assets.

The impact of fire on these assets varies (see Fig.1).

Seasonal timing, antecedent conditions and weather patterns all influence the short and long-term impact of any particular fire event or

sequence of fires, as well as how best to manage and respond to planned and unplanned fire.

THE NEED FOR SUSTAINABLE FIRE MANAGEMENT

Scientifically, our knowledge on how fire behaves and affects ecosystems is advancing, but there is still much to be learned and thus, fire should be managed to sustain natural processes and to build resilience.



Fig. 1: Patchy burn patterns as a result of a major fire in the Grose Valley, Blue Mountains National Park in NSW.

Humans have used fire over the millennia for differing purposes. The contemporary dilemma is to reconcile the need to protect human life and property while protecting the intrinsic character of our natural world and life support systems that sustain us.

The National Parks Association of NSW, with a long track record of interest and involvement in fire issues, has updated its 'Bushfire in Natural Areas' policy as outlined in the winter edition of the quarterly journal, *Nature NSW* (Brown, 2013).

FIRE MANAGEMENT ISSUES

NPA considers that key issues for a fire management regime that safeguards natural values for posterity must include:

- improved understanding of natural and human instigated fire influences on past and present landscapes;
- implications of climate change;
- understanding the effect of fire patterns and frequency on ecological processes and bushland

integrity in the face of increased habitat fragmentation;

- impacts on cultural heritage and on contemporary NSW communities; and
- capacity of management and resources to influence fire regimes appropriately.

These and other matters are discussed in the background document referred to in Brown (2013).

It is important to remember that natural areas are still diminishing in extent and condition, yet less than ten percent of pre-1788 bushland in NSW is formally reserved under the *National Parks and Wildlife Act 1974*. Many of these reserves include fire prone bush areas that are vulnerable to unplanned fire, not only from natural causes but also increasingly from deliberate or accidental human activities. At the same time, fire has been a natural process in the Australian landscape for millennia, influencing the pattern and character of species and ecosystems to the extent that too little as well as too

much fire can have an adverse effect on ecosystem and habitat survival.

Reserve managers have to juggle their obligations under the *National Parks and Wildlife Act 1974*, as set out under Part 2A, with the overriding obligation to minimise risk to human life and property. This is a hard call but one that the community needs to appreciate and support, especially with respect to reconciling fire regimes with ecological requirements.

Planning ahead to build community resilience through risk mitigation has advanced considerably in recent years. There is increased, but still insufficient, understanding that this is a whole of community responsibility.

Risk mitigation involves getting the best outcomes within human, financial and physical constraints. Realistically, the best 'bang for the buck' in terms of human asset protection is closest to the asset.

TAKE HOME MESSAGE

To sustain the natural values of the Australian landscape, fire management strategies for the long term must acknowledge and factor in:

- respect for differing land management objectives across tenures;
- predominance of ecological parameters in core natural areas;
- predominance of risk management in human settlement perimeters;
- application of fire regimes specific to local environments;
- open and accountable decision making and operational processes; and
- resourced and ongoing research and monitoring to inform decision-making.

Overwhelmingly, it needs to be understood and accepted, in keeping with the philosophy of ecologically sustainable development, that:

- ecological resilience of our remaining natural assets are essential components in building community resilience; and
- ecological management is respected as an obligation for managers of conservation lands

Cooperation, collaboration and accountability in decision-making across government and non-government agencies and individuals towards this end, in planning, practice and education are essential components for such an achievement.

REFERENCES

Brown, I. (2013). Burning Questions: managing fire for long term resilience in natural areas. *Journal of National Parks New South Wales*, 57 (2), 18-19.

BIOGRAPHY

Ms Anne Reeves OAM is the Vice President of National Parks Association NSW, a member of NPA's Park Management Committee, and a past president. She is the Minister for the Environment's nominee to the NSW Bush Fire Coordinating Committee and a former member of the National Parks Advisory Council.

Ian Brown is an environmental consultant with an interest in fire management, based on 20 years' previous experience as a national park manager and firefighter.