

Meeting challenges: Implementing a Code of Practice for Fire Management in Victoria

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Abstract

In 1995 a Code of Practice for Fire Management on Public Land was developed for Victoria. The challenge for Victorian fire managers has been to balance the safety of humans living in close proximity to parks and forests with the needs of flora and fauna. The 1995 Code was one of the first strategies to set an overall framework for integrated management of wildfire and fire-related activities on Victorian parks and forests.

In 2002-2003 over one million hectares of parks and forests were burnt in one of the largest wildfires in the last 50 years experienced in Victoria. This followed six years of drought and unfavourable weather conditions for prescribed burning. Significant public scrutiny and key learnings from these events provided a solid basis to begin the scheduled 10-year review of the 1995 Code.

Over an 18-month period, a thorough review of the Code of Practice was undertaken. Essential to the revision of the Code was collaboration with the Victorian community, stakeholders and wildfire specialists. The recently approved 2006 Code is now being implemented across the seven million hectares of parks and forests in Victoria and significant interest has been shown in a broader application of the Code of Practice by international wildfire experts.

The 2006 Code of Practice establishes a framework for the public administration of fire management in wildfire-prone areas, with community engagement providing the foundation for successful wildfire prevention, suppression and recovery. It links wildfire management with the active use of fire for ecological purposes and contributes to global wildfire management strategies.

The 2006-2007 season, saw more than one million hectares burnt, including approximately 10 percent of the areas previously burnt by the 2002-2003 wildfire. A challenge for fire managers in south-eastern Australia is to incorporate climate change into the landscape approach for fire planning and recognise the associated changes in biodiversity. Future reviews of the Code of Practice may need to be brought forward to meet this.

Key Words

Fire Management, community engagement, Code of Practice, wildfire prevention, suppression

Introduction

The State of Victoria is located in the south-eastern most area of mainland Australia. While Australia is a typically dry, fire-prone continent, the geography, climate and vegetation of south-eastern Australia makes it one of the most severe fire regions in the world. Fire, both as a natural event and its use by Australian indigenous people, has been significant in shaping much of Australia's ecosystems.

Many Australian flora and fauna species depend on wildfire as part of their life cycle. Typically, Victorian indigenous ecosystems consist of sclerophyllous vegetation that often requires wildfire to induce seed fall, flowering or germination. Many plant species have adopted vegetative regeneration through epicormic shoots and lignotubers so that even severe fires will not kill some species. The specific interaction of ecosystems with wildfire depends upon the frequency, seasonality and intensity of the wildfire, coupled with the life stage of key species in that ecosystem.

The Victorian public land estate of national parks, state forests and other reserves plays host to nationally and internationally recognised rare and threatened species. Managing both naturally occurring and human-induced wildfire over these seven million hectares is the responsibility of the Victorian Department of Sustainability and Environment. Victorian legislation is clear in allocating the responsibility of wildfire prevention and suppression on public land to the Department, with similar responsibility for rural private land resting with the Country Fire Authority.

As public land managers the Department must primarily reduce the incidence and severity of wildfire on the public land estate whilst balancing the need to protect human life and property and use or exclude fire to maintain ecosystem health. With people increasingly choosing to inhabit areas abutting parks and forests, there is a growing expectation that the public land manager will bear part of the responsibility for wildfire risks associated with the natural environment.

Accordingly, an overarching set of standards and principles is required to ensure that sound fire management practices are carried out on Victoria's public land estate. The Victorian 'Code of Practice for Fire Management on Public Land' was established to provide the strong framework for integrated fire management. It assists with the recognition and balancing of often competing objectives for fire management: the role of fire in the maintenance of biological diversity, the responses of different ecosystems to fire, natural patterns of succession and the risk of wildfire to human life and property. The Code of Practice ensures the Department meets obligations enshrined in legislation whilst providing a basis to respond to critics and support implementers. It sets the standards on which to base fire plans and outlines instructions for operational requirements.

A Code of Practice is Developed

Following a number of significant fires and increasing community interest in the way fire was managed, the development of a Code of Practice for Fire Management on Public Land commenced in 1995. The basis of the initial Code of Practice was to:

- Establish a coherent and consistent policy;
- Clearly define and fully integrate planning processes for all planned uses of fire;
- Ensure consideration of the appropriateness of fire regimes to the maintenance and vigor of indigenous flora and fauna; and
- Promote a high and consistent standard of fire, based on practices which are openly documented.

After an extensive development and consultation process, the original Code of Practice was published in December 1995 with the primary purpose to:

“...promote efficient, effective and integrated management of fire and fire related activities on public land for the purpose of protecting human life, property, assets, and environmental values from the deleterious effects of wildfire or inappropriate fire regimes...” (CNR, 1995)

The Code of Practice was the umbrella document under which all Fire Plans were to be developed, and compliance was a requirement for all fire-related activities in Victoria’s parks and forests.

Undertaking a Review

The Code of Practice was a robust, enduring document, and widely respected over its first 10 years of inception both within Australia and internationally. In a 2003 Audit Report into Fire Prevention & Preparedness, the Victorian Auditor General acknowledged that the Victorian State Government was

“...regarded as demonstrating industry best practice through the Code...” (Auditor General, 2003)

The 1995 Code of Practice gave a commitment that it should be reviewed within 10 years of its approval. In accordance with that obligation, a review of the Code of Practice began in January 2005. This followed a significant fire season which saw over one million hectares of land burnt by wildfire over a period of 59 days. The subsequent Inquiry into the 2002-2003 Victorian Bushfires conducted by the Victorian Emergency Services Commissioner made a number of recommendations relating both directly and indirectly to the Code of Practice.

From the outset it was recognised that community participation in the review of the Code of Practice was essential. Without community partnership, the Code of Practice would not endure for the next 10 years nor meet the expectations held by stakeholders and landowners. Collaboration with the Victorian community throughout the review would eventually set the standard of ongoing consultation with the wider Victorian community in relation to fire management issues.

Coupled with a desire to work with the community was a series of legislative obligations that needed to be undertaken as part of the review process. The requirement to seek public submissions on a Draft Reviewed Code of Practice was easily accommodated in the overall consultation strategy.

Advisory Groups

A number of advisory groups were established at the beginning of the project to actively contribute to the review of the Code of Practice. Members included partner fire agencies, national parks managers, specialists in meteorology, fire behaviour, fire ecology, statutory planning, water, forest management, fire operations, recovery as well as members of advocate groups. All of these representatives directly contributed at each stage of the project.

A project plan for the review process was designed in collaboration with these advisory groups. In order to ensure formal and informal input at all stages of the review, two key steps in the project were identified at the beginning. An initial scoping Discussion Paper was to be followed by a Draft Reviewed Code of Practice.

Discussion Paper

A Discussion Paper was developed early in the review process seeking comment from the wider Victorian community, partner fire agencies and stakeholder groups. It focused on a number of key issues that, since implementing the Code of Practice in 1995, had significantly changed or were identified as in need of consideration. Discussion topics were briefly described and then followed by a short list of questions of which the community was invited to answer.

Approximately 70 submissions were received on the Discussion Paper, from adjoining landholders, universities, advocate groups, partner fire agencies and other industry bodies. Overall, most submissions acknowledged that while some parts of the Code of Practice required updating, most issues stemmed from inconsistent or lack of, implementation. Areas of particular focus in the feedback

included the need for improved community education and engagement, relationship management with partners, particularly locals and monitoring and reporting, especially back to the community.

Draft Reviewed Code of Practice

Analysis of the Discussion Paper submissions, coupled with the feedback from the advisory groups and community meetings led to a Draft Reviewed Code of Practice. This document was widely distributed to stakeholders, advocate groups and the wider Victorian community for comment. Over 100 formal submissions on the Draft were received. While a range of opinions and ideas were presented, common topics raised for amendments included:

- More involvement of the community at all stages of fire management;
- Increased emphasis on seeking and using local knowledge in fire management planning and incident management;
- Better defined fire management planning processes;
- Demonstrated links with private land fire management;
- Stronger audit requirements to ensure implementation of and compliance with the Revised Fire Code; and
- Amendments to the Fire Management Zones.

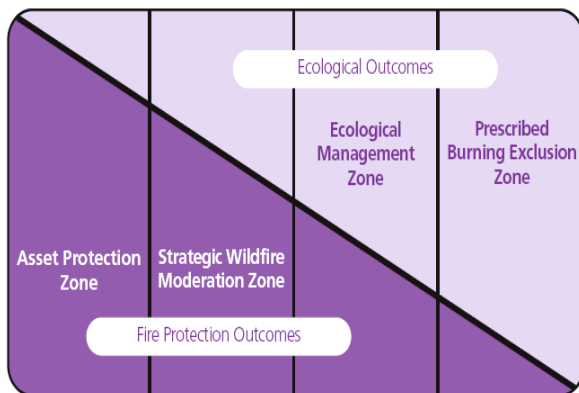


Figure 1: Fire Management Zones (DSE, 2006)

An updated Code of Practice

Community input was a vital component of the review process. Partner fire agencies, key stakeholder groups and the wider Victorian community were all encouraged to participate at a number of stages throughout the review. Information gathered from individuals, organisations, public meetings, the Discussion Paper and Draft submissions as well as comments from scientists and technical experts, were analysed and considered in the development of a final document.

The reviewed Code of Practice was approved by Victorian Parliament in February 2006, and then gazetted in September 2006 revoking the 1995 Code of Practice. It lays down minimum statewide standards for fire management on public land (DSE, 2006).

The review of the Code of Practice incorporated up to date fire management science, including the effects of fire on biodiversity. It ensured integration with fire protection on private land and addressed some of the recommendations from the Inquiry into the 2002-2003 Victorian Bushfires conducted by the Victorian Emergency Services Commissioner.

A number of significant changes present themselves in the reviewed Code of Practice for Fire Management on Public Land. Importantly, the dual roles of the State Government as both a public

land manager and a fire suppression service are more clearly distinguished and a foundation of community engagement is established.

Key to the integrity of the reviewed Code of Practice is the maintenance of both a quality management framework (typically 'goals-plan-implement-review') and the fire protection framework of Prevention, Preparedness, Response and Recovery. Research is a requirement across all sections of the Code of Practice.

Using the quality management framework as a basis, the reviewed Code of Practice is broken into five key sections: Overarching Principles, Planning, Land Management Burning, Wildfire and Compliance. Each of these five sections contains foundation principles, a planning component, an implementation section and a review requirement. This quality management framework applies throughout the document, enabling constant feedback and review to ensure effective implementation.

Overarching principles

The broad principles for fire management on public land are established at the beginning of the document to address the threat of wildfire, guide the use of prescribed burning, and provide for the achievement of integrated land management objectives. Specifically, they establish the minimum requirements in relation to risk management; prescribed burning (operations), fire protection (prevention, preparedness, response and recovery), environmental management and community partnerships. Community partnership and engagement principles were added to the overarching principles to reflect the Department's commitment to improving its relationship with the community. In addition to these added principles there is a specific recognition that local knowledge is to be included in all incident management teams and targeted during planning operations throughout the year.

Planning

The Planning section outlines the structure under which fire protection and other land management objectives are delivered in a planned and integrated manner. It recognises the concept of genuine fire management that encompasses both fire protection strategies and fire ecology strategies.

Strategic Fire Management Plans are described for each management area of Victoria. These ten-year plans must contain specific goals, objectives and standards for the integrated use and exclusion of fire to meet asset protection, fuel management, ecological and cultural objectives. Importantly it is set that the Fire Management Plans must demonstrate clear links to fire protection strategies on private property (land tenures beyond the jurisdiction of the Code of Practice) and contain a monitoring and evaluation component to assess if fire management outcomes are being achieved.

On a rolling annual basis, Fire Operations Plans must also be annually prepared in accordance with the strategic Fire Management Plan for a given area. Fire Operations Plans contain a three-year forward program for prescribed burning and a schedule for other preparedness works. The rolling, annual nature of these plans provides increased flexibility to access works planned over a three-year period if, for example, first year works cannot be undertaken due to weather restrictions.

The key to fire planning in the reviewed Code of Practice is the concept of zoning all public land according to the fire protection and ecological priorities for an area. In response to the Emergency Services Commissioner's recommendation to review zones in the original Code of Practice, fire management zones were reduced in quantity from five to four. As described in the reviewed Code of Practice the four zones have clear fire management objectives for asset protection, strategic wildfire moderation, ecological management or the exclusion of prescribed burning.

Land management burning

The first of the two ‘implementation’ chapters outlines requirements relating to prescribed burning on public land. In Victoria prescribed burning is used to achieve one of three objectives: to reduce fuel levels for fire protection, to stimulate regeneration of tree species following timber harvesting and to maintain or enhance indigenous ecosystems. Operational standards and guidelines for the conduct of prescribed burning are described in this part of the Code of Practice. This includes the authorisation, ignition, patrol, rehabilitation and ongoing monitoring of a prescribed burn area.

Wildfire

The second of the two ‘implementation’ chapters sets the minimum standards and guidelines for addressing the threat of wildfire in Victoria’s parks and forests. The fire protection framework of Prevention, Preparedness, Response (Suppression) and Recovery is applied here.

Prevention

All activities concerned with minimising the incidence of wildfire, particularly those of human origin, are described in this section. This includes education, enforcement and prevention operations.

Preparedness

This section of the Code of Practice describes all activities associated with the preparation for wildfires, such as fuel management (including the application of Fire Management Zones), readiness, aircraft, roading, personnel training, communications, equipment standards and detection of wildfire.

Response (suppression)

The wildfire suppression chapter of the Code of Practice refers to all activities associated with restricting the spread of wildfire following its detection, and making the wildfire safe. This includes health and safety of personnel and the community, dispatch of resources, incident planning, interagency coordination, operational guidelines (including environmental standards) and fire investigation.

Recovery

This section of the Code of Practice describes all activities associated with recovery from the impact of wildfires, including the rehabilitation of fire suppression disturbance, community recovery and debriefing of personnel.

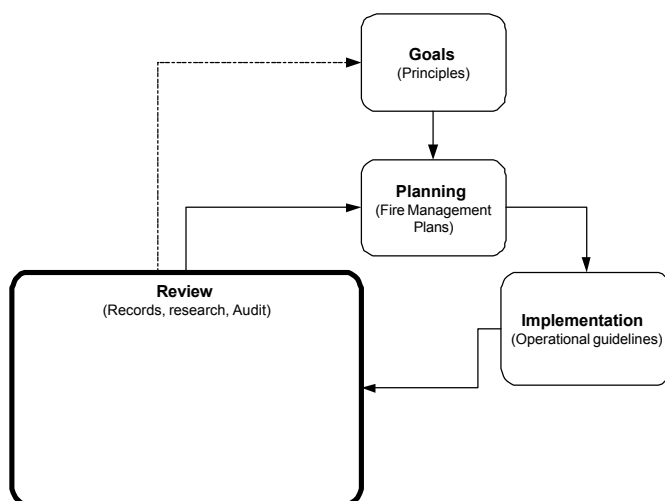


Figure 2: “Plan-Do-Review” cycle

The “Plan-Do-Review” cycle illustrated at the start of each chapter, underpins the entire Code. The bold-box indicates the context for each section.

Compliance

The concluding chapter of the reviewed Code of Practice for Fire Management on Public Land complements the final component of the quality management framework – the review stage. Compliance with the Code of Practice is undertaken through records, research, on-going monitoring as well as a comprehensive, external audit requirement. The reviewed Code of Practice details a more frequent and stringent audit process. This extends and links with the improvements made to the community engagement aspects of the Code of Practice, as results of the audits will be made available to the community to ensure an open and transparent process is followed and that the Code of Practice is being adequately and consistently implemented around the State.

Implementing the new direction

Implementation of the reviewed Code of Practice initially focused on the education of fire management staff with regards to changed practices and business principles. All members of advisory groups, and those individuals or groups who participated at any stage of the review process were provided with a copy of the reviewed Code of Practice and a summary of the key changes. To complete the engagement process commenced during the review, implementation of the reviewed Code of Practice will include public information sessions to provide details of amendments and to inform that there will be changes in the way DSE (and partner agencies) conduct fire management operations and the opportunity to raise questions.

Many changes in the reviewed Code of Practice reflect improvements in operational practice that have occurred in the 10 years since the original document was approved and released. Others reflect where the Department wishes to head into the future. The Code of Practice can also be used to help implement the Food and Agriculture Organization of the United Nations “Fire management Voluntary guidelines: Principles and strategic actions”.

Meeting Challenges and the way forward

The reviewed Code of Practice was approved 12 months ago, but has only been implemented for approximately eight months. These first eight months have been some of the most significant eight months that Victorian public land managers and fire agencies have faced in recent history.

Over the summer period of November 2006 - February 2007 more than 1.2 million hectares of land was burnt in a series of large, intense wildfires. The majority of these wildfires were started by lightning, and burnt in extremely dry vegetation that had been effected by a continuing 10-year drought in many areas.

It was the second time in four years that Victoria experienced more than one million hectares burnt in a single summer season. This poses a significant challenge for public land managers, fire services, and the community who choose to live in these environs.

One challenge for the implementation of the Code of Practice includes the education of the community in order to minimise confusion over the new concepts for fire planning. The reviewed Code of Practice describes Fire Management Plans that incorporate both fire protection and ecological strategies. This is broader than the Fire Protection Plans described under the original Code of Practice.

In addition it is becoming clear that increasingly engaging with communities about fire management on public land is, in some cases, dividing communities. By initiating discussion about fuel management works, wildfire suppression techniques and ecological requirements, the community has become more educated and has an increased desire for information (at an increased speed). In some cases this has brought forward divisions of thinking within a community to the forefront, which is actively contributing to the emerging ‘blame culture’ associated with natural disasters.

Prolonged periods of below-average rainfall, which thus affects the safe conduct of prescribed burning programs, coupled with an increasing migration of communities to the park-forest boundary have meant that the adverse risk of wildfire to human life and property has increased. In the case of the recent Victorian fires, there is much discussion in the community and media as to the most effective way to manage fire in parks and forests. Polarised discussions surrounding fuel reduction practices and ecological requirements are being raised openly and loudly in the public arena. Public land managers recognise that severe wildfire events, in a naturally fire prone region, are likely to increase as the effects of climate change become more pronounced.

Herein lies the challenge for the Victorian Code of Practice.

Full implementation of the Code of Practice will continue with further defining of Fire Management Plans to assist in the change over from Fire Protection Plans and further defining policy. It is imperative that the wider Victorian community plays an active role in the implementation of the new Code of Practice, which recognises a shared responsibility for wildfire risk, and seeks open community scrutiny to monitor fire management practices.

Over the next few years it is expected that more information will be gleaned about the likely impact on wildfire management and ecological changes as a result of climate change. Consideration must therefore be given to bring forward the next review of the Code of Practice to reflect any new information and the need for significant shifts in strategic thinking around fire management.

Successful implementation of the reviewed Code will be dependent upon the willingness to learn from recent fire events, past practices, future thinking and to listen to community expectations.

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