

Foreword

This updated edition of *Planning for Bush Fire Protection* (PBP) is a milestone in the NSW Government's efforts to work jointly with local government and the private sector to link responsible planning and development control with the protection of life, property and the environment.

Bush fire is a major challenge for the community. It has been a natural part of our landscape for thousands of years and remains an ever-present threat.

In the period 24 December 2001 to 16 January 2002 bush fires caused the loss of 109 homes across New South Wales, with 40 others being damaged. Losses were particularly severe in Blue Mountains, Penrith, Wollondilly, Shoalhaven and Hawkesbury local government areas. More recently, in 2003, the devastating fires of the ACT severely damaged the suburbs of Duffy and Chapman, with some 500 homes being lost.

The NSW Rural Fire Service has a statutory obligation to protect life, property and the natural environment through fire suppression and fire prevention. Improved land use planning decisions for developments in bush fire prone areas are intrinsic to the fire management and environmental protection strategies of the Service.

Following the Sydney bush fires in 2001/2002 a Joint Parliamentary Inquiry was established and, in its 28 June 2002 report, endorsed the release of the updated 2001 version of PBP.

The report also recommended that: "the PBP Guideline continue to be reviewed, and updated as new research about fire impact on buildings becomes available, and reissued or affirmed at least every two years."

The changes in this document reflect the legislative amendments that came into effect on 1 August 2002, through the *Rural Fires and Environmental Assessment Legislation Amendment Act 2002*, as well as changes to the *Building Code of Australia*.

This substantially revised 2006 edition of PBP is intended for use by councils, town planners, NSW fire authorities, developers, planning and bush fire consultants, surveyors, and building practitioners (including accredited certifiers).

Key features of the revised edition include the emphasis on a performance based approach to development through focusing on safer outcomes rather than simply meeting prescriptive requirements.

This approach to planning allows for considerable flexibility and innovation that links the bush fire hazard for a site with the implementation of appropriate bush fire protection measures.

Types of appropriate measures include suitable defensible space; access considerations; vegetation management; on-site emergency management arrangements; water supply provisions and site assessment for building construction requirements using AS 3959-1999.

PBP also provides the necessary planning framework for developments in rural and urban areas close to land likely to be affected by bush fire.

PBP is also applicable to the subdivision of land for residential and rural-residential purposes and those developments which are considered a special fire protection purpose. These include, developments under State Environmental Planning Policy Seniors Living, schools, hospitals, and tourism developments. PBP recognises that these developments may present their own individual peculiar difficulties at times of an emergency.

Finally, PBP expands the considerations for infill developments - a dwelling within an existing allotment - and for the first time establishes the bush fire planning objectives for industrial, commercial and warehousing types of development.

This edition of PBP and the application of its principles will significantly assist all those involved in planning developments in bush fire prone areas and will also help the Service to fulfill its charter of protecting life, property and our fragile environment.

I commend *Planning for Bush Fire Protection 2006* to you.



A handwritten signature in black ink that reads "Tony Kelly". The signature is stylized and cursive.

The Hon. Anthony Bernard KELLY, MLC
Minister for Emergency Services

List of Abbreviations

APZ	Asset Protection Zone
B & Bs	Bed and Breakfast establishments
BCA	Building Code of Australia
BFSA	Bush Fire Safety Authority
BPA	Bush Fire Prone Area (also bush fire prone land)
BPMs	Bush Fire Protection Measures
BPL Map	Bush Fire Prone Land Map
CC	Construction Certificate
DA	Development Application
DCP	Development Control Plan
DEC	Department of Environment and Conservation
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
ESD	Ecologically sustainable development
FDI	(Forest) Fire Danger Index (Also FFDI)
IPA	Inner Protection Area
KNP	Kosciuszko National Park
kW/m²	kilowatts per square metre (being a measure of radiant heat)
LEP	Local Environment Plan
OPA	Outer Protection Area
PBP	<i>Planning for Bush Fire Protection</i> (this document)
RF Act	<i>Rural Fires Act 1997</i>
RF Regulation	<i>Rural Fires Regulation</i>
RFS	NSW Rural Fire Service
RHF	Radiant Heat Flux
ROS	Rate of Spread
SEPP	State Environmental Planning Policy
SFPP	Special Fire Protection Purpose

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Chapter 1 PBP and You.

1.1 Introduction

This new version of *Planning for Bush Fire Protection* (PBP) applies to all “development applications” on land that is classified as “bush fire prone land” (BPL), identified on a council’s BPL map.

The general principles underlying this document are :

- protection measures are governed by the degree of threat posed to a development;
- a minimum setback from a hazard is always required, i.e. a defendable space;
- the greater the setback from the hazard, the lower the subsequent bush fire protection construction standards required;
- the smaller the interface a development has fronting the bush fire threat, the less the opportunity for bush fire to threaten the development;
- bush fire protection measures (BPMs) are contained within the ‘overall’ development and not on adjoining lands, other than in exceptional circumstances (see section 3.3); and
- no development in a bush fire prone area can be guaranteed to be entirely safe from bush fires.

For development on BPL specific controls apply to residential/rural residential subdivision and “Special Fire Protection Purposes” (SFPPs) – those types of development specified in the legislation as requiring particular attention (including mandatory involvement of the Rural Fire Service) (see section 2.7).

Particular attention is also given to residential “infill” – new houses and alterations/additions in pre-existing subdivisions.

For “other development”, the aim/objectives of PBP apply (see below). The suite of bush fire protection measures will also be useful for developers and for assessment purposes.

BPMs will assist building survival during a bush fire. They will also contribute to the safety of firefighters and members of the community occupying or attempting to leave buildings during a bush fire.

They are also designed to take into account development potential, on-site amenity and environmental protection.

Figure 1.1 illustrates the process of using PBP in relation to a specific development proposal.

1.2 How to comply with PBP

1.2.1 What needs to be submitted

Development Applications to the consent authority (usually the relevant council) on bush fire prone land need to include a bush fire assessment report within their Statement of Environmental Effects, (see Appendix 4).

Aim and Objectives of PBP.

All development on Bush Fire Prone Land must satisfy the aim and objectives of PBP.

The aim of PBP is to use the NSW development assessment system to provide for the protection of human life (including firefighters) and to minimise impacts on property from the threat of bush fire, while having due regard to development potential, on-site amenity and protection of the environment.

More specifically, the objectives are to:

- (i) afford occupants of any building adequate protection from exposure to a bush fire;
- (ii) provide for a defendable space to be located around buildings;
- (iii) provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent direct flame contact and material ignition;
- (iv) ensure that safe operational access and egress for emergency service personnel and residents is available;
- (v) provide for ongoing management and maintenance of bush fire protection measures, including fuel loads in the asset protection zone (APZ); and
- (vi) ensure that utility services are adequate to meet the needs of firefighters (and others assisting in bush fire fighting).

Applicants must demonstrate to the RFS or the consent authority that proposals satisfy the broad aim and objectives of PBP, specific objectives for the development type and the performance criteria for the various proposed bush fire protection measures (BPMs). (See Figure 1.2)

For residential/rural-residential subdivision and “special fire protection purposes”, proposals must also comply with:

- the specific objectives in sections 4.1 and 4.2 respectively; and
- the performance criteria for each of the Bush Fire Protection Measures (BPMs) in sections 4.1 and 4.2 respectively.

For “infill development” (as defined), proposals must also comply with:

- the specific objectives in section 4.3; and
- the performance criteria in section 4.3.

1.2.2 How will development be assessed

This version of *Planning for Bush Fire Protection* (PBP) introduces a performance based approach, and identifies objectives and detailed performance criteria to satisfy desired outcomes.

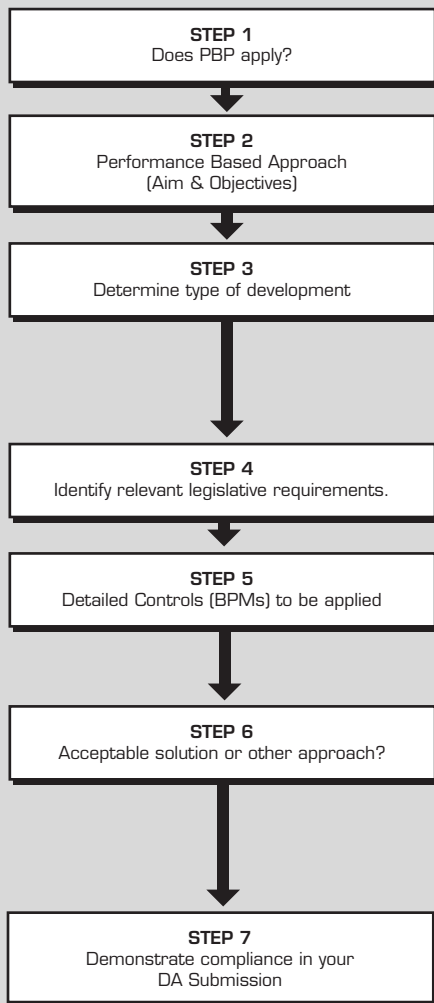


Figure 1.1 How to use PBP

Check that the proposed development is on bush fire prone land (on certified bush fire prone land map). Maps are available at the relevant local Council.

Read Chapter 1 which:

- explains the performance based approach, and
- lists the aim and objectives of PBP.

Read Chapter 2 and determine whether the proposed development is:

- residential or rural residential subdivision
- a “special fire protection purpose” – as defined or
- other development, such as residential infill, alterations and additions.

Determine whether the development is captured under section 79BA of the EP&A Act or s100B of the RF Act requiring a bush fire safety authority (BFSA).

Read Chapter 3 which explains:

- the nature of the BPMs; and
- any exceptional circumstances that might apply .

Read the relevant parts of Chapter 4 (4.1, 4.2 or 4.3), noting:

- Specific objectives and BPMs required (e.g. APZ, access).
- the intent, performance criteria and acceptable solutions for each BPM.
- the detailed Appendices referred to.

Decide (for each measure) whether the Acceptable Solutions can be complied with, or that other means of satisfying the performance criteria are required. Consider an appropriate combination of measures.

Comply with the Submission Requirements (in Appendix 4) and provide evidence to support compliance with the “controls” and the aim and objectives of PBP.

(a) Performance Criteria for the Bush Fire Protection Measures

Performance criteria are the outcomes to be met for satisfying the BPMs.

The performance criteria can be satisfied in one of two different ways:

- use of the acceptable solutions; OR
- demonstrating another solution satisfying the specific objectives and performance criteria.

These performance criteria can be found in the Tables in Chapter 4 (Performance Based Controls).

Performance criteria allow applicants, consent authority and to the RFS to be flexible and innovative in responding development opportunities and constraints. In order to reach an acceptable siting and design solution, the criteria have been developed taking into account the range of circumstances across the State and recognising that no two sites or proposals are the same.

They also allow applicants, councils and the RFS to consider a broad range of issues and information, including community expectations, environmental protection and the application of new technologies.

(b) Acceptable Solutions

PBP has identified some acceptable solutions which will satisfy the performance criteria.

Any variation from the acceptable solutions will require detailed justification to demonstrate how the performance criteria can be met through another method(s).

Figure 1.2 illustrates the relationship between the various components within PBP.

(c) Proposing Alternative Solutions

Submissions proposing variations to acceptable solutions must provide substantiated evidence that the specific objectives and performance criteria can be met.

1.3 Relationship of the Building Code of Australia (BCA) to PBP

Development on BPL needs to meet the planning requirements of PBP as well as any bush fire construction requirements under the BCA. PBP recognises AS 3959 - 1999 as providing the deemed - to - satisfy arrangements for construction of certain classes of building.

(a) Residential Buildings and SFPPs

Where development occurs in a bush fire prone area, certain bush fire provisions of the BCA will apply (including various NSW variations) for buildings of classes 1, 2, 3, 4 and those class 9 buildings that are also a special fire protection purpose.

Where a development, submitted under section 79 BA of the EP&A Act, complies with the deemed-to-satisfy provisions of the BCA through AS 3959-1999 (using **Appendix 3 of PBP for the site assessment**), then the certifying authority can determine compliance and issue the relevant

construction certificate without referral to the RFS. Where an 'alternate solution' is offered for these classes of buildings, the RFS will consider the proposal under section 79BA (or section 100B in the case of a special fire protection purpose) and the certifying authority will issue the construction certificate in compliance with the development consent conditions.

(b) Other Classes of Buildings

For other classes of buildings (such as factories, shops and warehouses) BPMs will only apply at the development assessment stage. Consent will be determined on a case by case basis without the need to refer the development application to the RFS. However, if the council is concerned that the development does not meet the aim and objectives of PBP, then the matter may be referred to the RFS for its advice. The provisions under the BCA for fire safety will be accepted for bush fire purposes where the aim and objectives of PBP can be met (see section 1.1).

A description of the various classes of buildings can be found in Appendix 1 (see A1.6).

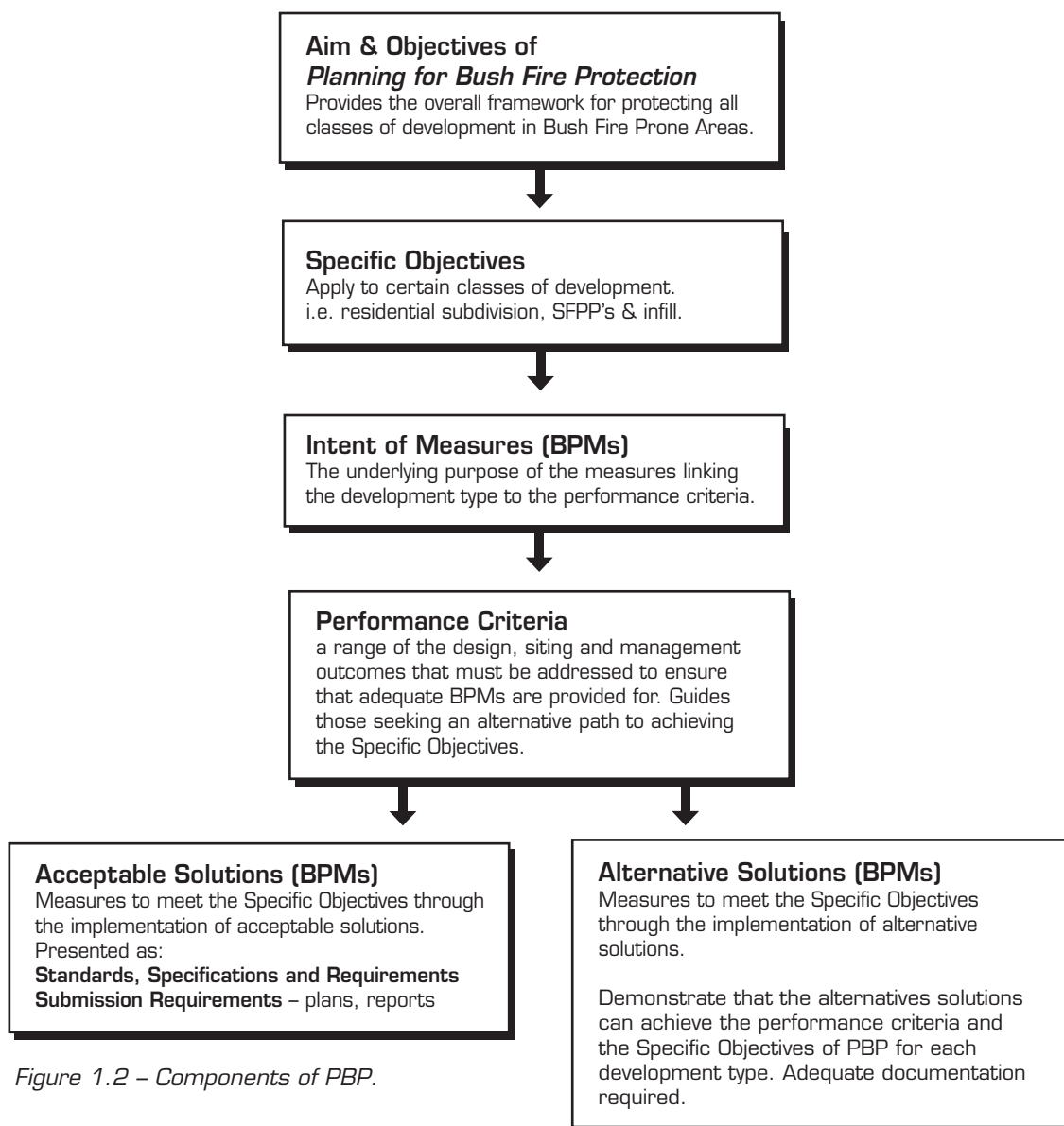


Figure 1.2 – Components of PBP.