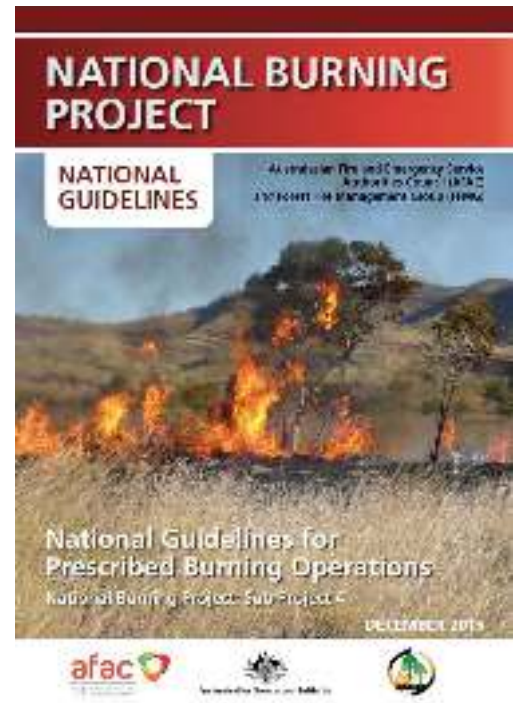
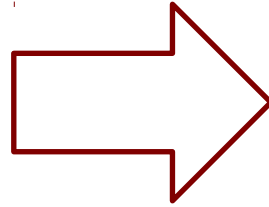


# HOLISTIC AND CONSISTENT APPROACH TO PRESCRIBED BURNING

Deb Sparkes

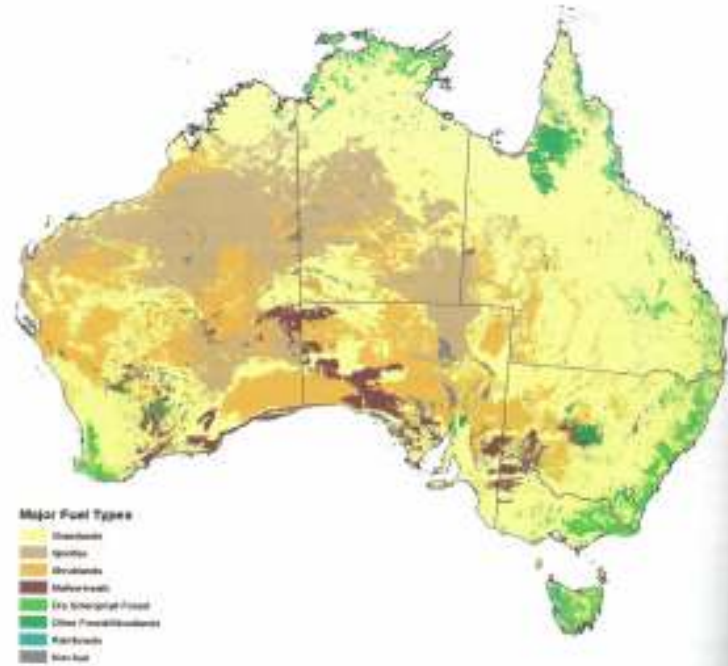
Project Officer





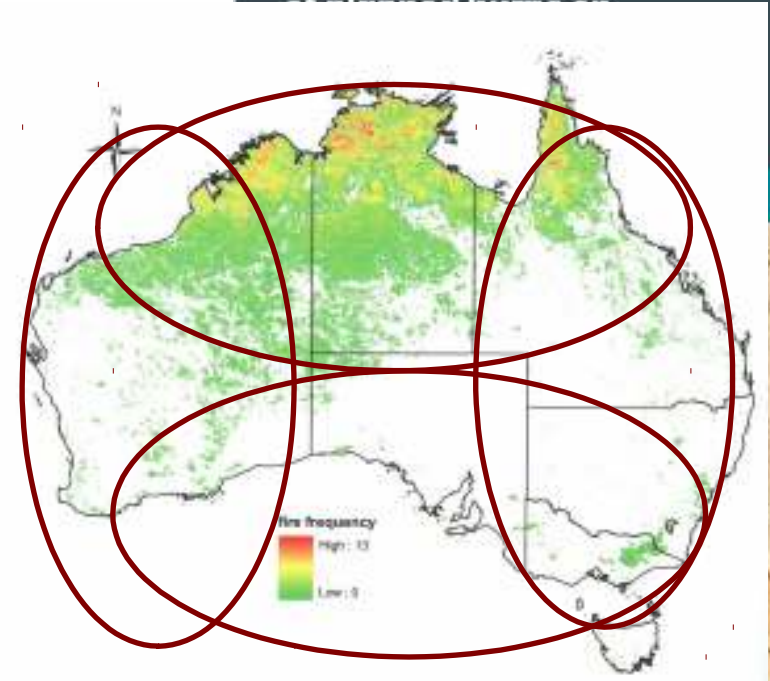
SYNTHESISING MULTI APPROACHES TO PRESCRIBED BURNING TO CREATE NATIONAL FRAMEWORKS





Department of Environment

## Reducing the effect



CSIRO

Victoria  
Department of Environment and Planning

Images from  
<http://images.mdba.gov.au/displayimage.php?album=132&pos=55>  
<http://sevencolors.org/post/insects-photography>  
 Bradstock et al, 2012, *Flammable Australia*



# The AFAC model

- Collaboration space for best practice
- **Mission: *creating synergy across the emergency services sector***



- Collaborations groups
- Sharing knowledge
- National doctrine
- National frameworks
- Influencing standards and regulations
- Conferences and events
- Making research work
- Professionalisation schemes

## BEST PRACTICE GUIDELINES



Strategic

Operational

The frameworks and principles identified in these documents will be valuable to practitioners, planners and land managers with an interest in planning or undertaking prescribed burning in the best possible way.

## RISK FRAMEWORKS



Operations and safety

Smoke and GHG

Fuel hazard

Ecological

These reports build and present frameworks that can be adopted by practitioners and agencies to facilitate improved approaches and greater appreciation of risks associated with undertaking prescribed burning.

## MEASURING PERFORMANCE



Objective & monitoring

Performance measures

A framework and set of performance measures for evaluating prescribed burning against desired objectives.

## NATIONAL POSITION

The National Position articulates a nationally agreed position on prescribed burning and establishes principles for the development and implementation of prescribed burning policies and programs.



## AN APPROACH TO OBJECTIVES SETTING

A tool for clearer identification of costs and benefits when analysing competing objectives in planning for prescribed burning.



## BEST PRACTICE SYNOPSES



**Process map**  
Step-by-step best practice guide for prescribed burning, from strategic planning through to burning implementation.



**Best practice principles**  
Best practice principles for prescribed burning summarised into a ready-to-use synopsis for the benefit of prescribed burning professionals.



**Risk management framework**  
The risk management framework for prescribed burning summarised into a ready-to-use synopsis for the benefit of prescribed burning professionals.



**Diagrammatic summary**  
Diagrammatic summary of the rationale behind prescribed burning.

## RISK MANAGEMENT SYNOPSIS

## PROGRAM LOGIC

## TRAINING MANUALS

These learner resources provide instruction and theory that can be used by students or by instructors for lesson planning.

- Assist with prescribed burning
- Simple prescribed burns
- Complex prescribed burns



## OVERVIEW



This report is a well-used introduction and overview of prescribed burning in Australia and the evidence base that underpins the use of planned fire.

## BEST PRACTICE REVIEW



This report provides a detailed account of the prescribed burning practitioners who are considered to be among the best practice.

## SCIENCE REVIEW



Reviewing scientific, practical and local knowledge, Owner knowledge around the use of prescribed burning as a land management tool.

## CAPABILITY REVIEWS



Training



Resources

A review of prescribed burn training and resource capability to aid in developing training and resource-making outcomes.

## TOOLBOX

The National Tool Box is a repository of existing decision support tools that can aid in prescribed burning.



# A national position



## The position:

AFAC and FFMG member agencies take the position that prescribed burning is an essential part of bushfire mitigation across the Australian landscape to reduce risk to communities and ecological health.

# A consistent structure

**Strategic  
planning**

**Program  
planning**

**Operational  
planning**

**Burn  
implementation**

Objectives, risk management, consultation and communication

Long-term planning driving the scale and nature of an agency's prescribed burning program.

Programming the scheduling of burns one to five years ahead.

Advance planning for individual burns usually resulting in a burn plan.

Mobilisation, briefings, test burn, light up, mitigation measures, control strategies, mop-up, patrol and reporting.

=> 5 years

1 – 5 years

Months/year

Days

Jurisdiction, region, property

Jurisdiction, region, property

Individual burn

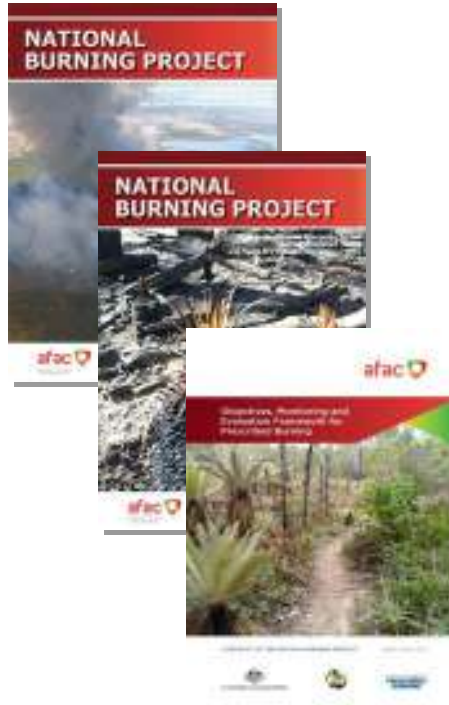
Individual burn

Research, monitoring, evaluation and reporting





# Objectives and monitoring



## Objective setting tool

- EXCEL Spreadsheet
- Cost:Benefit analysis

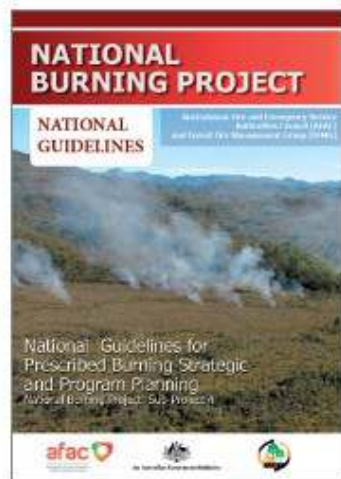
## Performance measures

- Development of national performance measures framework

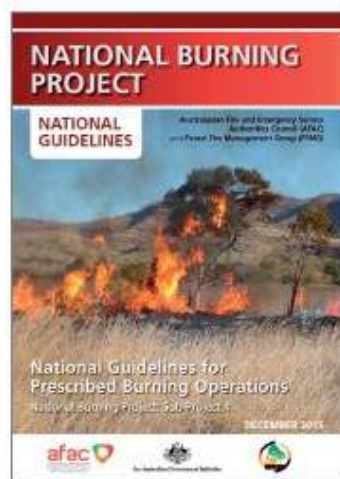
## Objectives and monitoring framework

- Principles for objective setting
- Principles for monitoring
- A framework linking objectives and monitoring

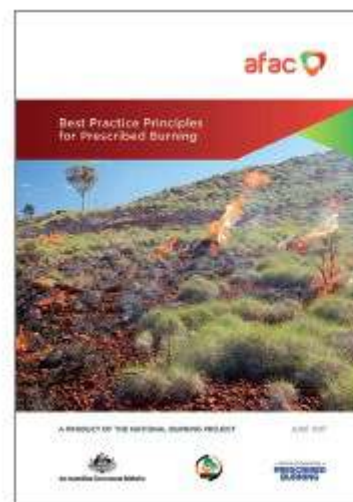
# BEST PRACTICE GUIDELINES



Strategic



Operations



Best practice principles  
Best practice principles  
for prescribed burning  
summarised into a  
ready-to-use synopsis  
for the benefit of  
prescribed burning  
professionals.

The frameworks and principles identified in these documents will be valuable to practitioners, planners and land managers with an interest in planning or undertaking prescribed burning in the best possible way.

# National Guidelines for Prescribed Burning



# National Guidelines case studies



Nine case studies online

## RISK FRAMEWORKS



Operations  
and safety



Smoke  
and GHG



Fuel hazard



Ecological

These reports build and present frameworks that can be adopted by practitioners and agencies to facilitate improved approaches and greater appreciation of risks associated with undertaking prescribed burning.

## RISK MANAGEMENT SYNOPSIS



The risk management framework for prescribed burning summarised into a ready-to-use synopsis for the benefit of prescribed burning professionals.

# Risk Management

- ISO 31000:2009
- Communication
- Monitoring and evaluation
- Dimensions
  - Fuel
  - Smoke / Greenhouse
  - Ecological / Environmental
  - Burn containment
  - Crew safety
  - Public safety
  - Impact on values



# Training



## Review of Training

- Review of existing national training competencies
- Review of how training is delivered
- How to improve training

## Training resource kits



<i>Learner Resource</i>	<i>Competency</i>
Assist With Prescribed Burning	PUAFIR213 Assist With Prescribed Burning
Simple Prescribed Burns	PUAFIR413 Develop Simple Prescribed Burn Plans
	PUAFIR412 Conduct Simple Prescribed Burns
Complex Prescribed Burns	PUAFIR513 Develop Complex Prescribed Burn Plans
	PUAFIR511 Conduct Complex Prescribed Burns

# Reviews

## OVERVIEW



This report is a very useful introduction and overview of prescribed burning in Australasia and the evidence base that underpins the use of planned fire.

## BEST PRACTICE REVIEW



This report provides a detailed account of the prescribed burning practices that are considered to be examples of best practice.

## SCIENCE REVIEW



Reviewing science, practical and Traditional Owner knowledge around the use of prescribed burning as a land management tool.



# National Toolbox

- Collate prescribed burning tools
- Present them online

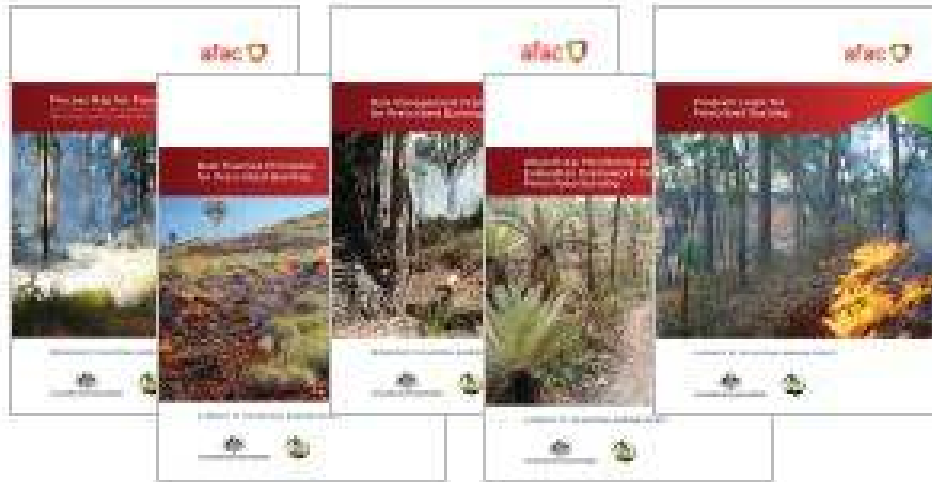


**Step 2. Likelihood** - This table attempts to quantify the likelihood of a prescribed burn escape as part of the assessment process. The factors have been grouped into five broad groups, each has a likelihood score. A score is then calculated. This figure then provides an overall likelihood of escape score from which appropriate risk mitigation can be determined from the risk matrix table.

Note that the descriptors in the coloured matrix are applicable to NSW and ACT experience. Each agency or state should adapt these descriptors to suit their local risk guides. The framework however remains constant.

		Factors	Low (1)	Mod (2)	High (3)
1	Burn Day Conditions	Wind	0-5	10-15kph	>15kph
		RH	>60	50-40	40-30
		FDI	0-3	9-12	12 - 24
2	Long Term Conditions	Rainfall deficiencies	Average	Above Av	Very High
		Season	Winter / Autumn	Autumn	Spring
		KBDI / SDI	<63	>63 - 100	100-150
3	Fuels	FMC	>16%	12% - 15%	8-12%
		OFH - Internal	Moderate	Mod - High	VH
		OFH - External	Low - Moderate	Mod - High	VH
4	Control	Hard Control Lines	Cat 2 standards	Cat 7 standards	Cat 9 standards
		Soft Control Lines	All Hard	wide	Effermental drain
		Resources available	> Plan	As per plan	contingency

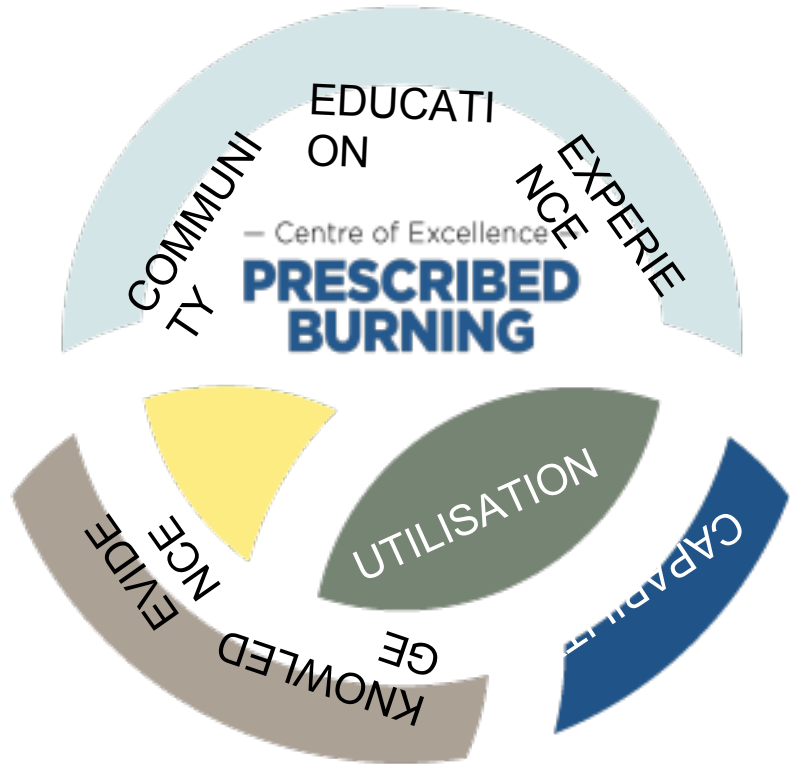
# Ready to use summaries



## SYNOPSIS

A great resource summarising the guidelines and frameworks developed by the National Burning Project as simple and ready-to-use brochures.

- **Process map** of prescribed burning
- **Best practice** principles for prescribed burning
- **Risk management** framework for prescribed burning
- **Program Logic**
- **Objectives and monitoring** framework for prescribed burning



*The Prescribed Burning Centre of Excellence will lead and support the development of innovative, evidence based principles, policies, programs and practice for prescribed fire.*

#### GOALS

- Research utilisation
- Dispersing Lessons Learnt
- Ensuring utilisation of 'National Burning Project' products
- Practitioner engagements across jurisdictions
- Increasing capability of staff by providing credible knowledge
- Addressing 'wicked problems' competently and effectively through collaborative effort
- Increasing national connectedness of people to each other and to country
- Informing research direction, policy development and good practice.



cellence —



# More information

<http://www.afac.com.au/initiative/burning>

[prescribed.burning@afac.com.au](mailto:prescribed.burning@afac.com.au)

Join the mailing list



afac17  
powered by **INTERSCHUTZ**