

FIRE NOTE

ISSUE 103 JANUARY 2013

SUMMARY

Urban and regional planning has an increasingly significant contribution to make in managing bushfire risk. Integration of spatial planning and bushfire risk is regarded as a policy priority in Australia (COAG, 2002). This *Fire Note* reports on initial outcomes of research to identify leading practice in spatial planning for bushfire risk and broader emergency management in the context of climate change. It also discusses future research directions – in particular, a series of case studies to determine the extent to which current strategic and statutory planning is effectively integrated with bushfire risk and emergency management, with the aim of identifying barriers and enablers to leading practice in this area.

ABOUT THIS FIRE NOTE

This is an initial report on *Urban and regional planning systems* conducted as part of the Bushfire CRC *Understanding Risk* program.



AUTHORS

Professor Barbara Norman (pictured) is Foundation Professor of Urban and Regional Planning at the University of Canberra. Dr Kate Sullivan was a Visiting Fellow Urban and Regional Planning at the University of Canberra. For more information contact barbara.norman@canberra.edu.au.

URBAN AND REGIONAL PLANNING FOR RISK AND UNCERTAINTY IN A CHANGING CLIMATE



◀ The research shows that some aspects of planning for risk, natural hazards and climate change are covered under environmental planning components of planning courses, but more work is needed.

BACKGROUND

Urban and regional planning has an increasingly significant contribution to make in managing bushfire risk. Integration of spatial planning and bushfire risk is regarded as a policy priority in Australia, with a landmark national report on natural disaster management identifying “land use planning which takes into account natural hazard risks”, including bushfire risk, as the “single most important mitigation measure

in preventing future disaster losses in areas of new development” (COAG, 2002, 17). The objective of the research is to identify leading practice in spatial planning for bushfire risk and emergency management in the context of climate change, and barriers and enablers to leading practice in this area.

BUSHFIRE CRC RESEARCH

Research to date has involved a series of literature reviews on integrating spatial planning, bushfire risk and emergency management in

the context of climate change. An audit of strategic and statutory planning responses to bushfire risk, drawing on geographically based case studies, is currently underway. A national roundtable of key stakeholders involved in planning for bushfire risk and emergency management will be undertaken, complemented by a series of end user workshops and development of a tertiary education module on planning for bushfire risk. A detailed report of the activities of the first year of the project is available on the project page on the [Bushfire CRC website](#).

RESEARCH OUTCOMES

Projected research outcomes include the development of guidelines that can be used at the local government level and by regional bodies, to revise current planning systems.

The research process aims to actively include stakeholders across planning, bushfire and emergency management sectors. Engaging industry end users and the research community through research workshops and the publication of research findings is critical to the project. This ensures that outcomes are relevant and practical, and encourages shared learning.

Literature review

The literature review focused on three important areas derived from the research themes:

1. The extent of policy integration and how it is implemented
2. The clarity of policy objectives and consistency of policy integration
3. Urban and regional planning education and training.

To contribute a better understanding of the issues, the literature review adopted a critical approach, providing an overview of major ideas, debates and areas of conceptual knowledge in the literature. Importantly, the review considered the peer reviewed and 'grey' literature – reports, working papers and policy documents produced by government and non-government bodies, academics and industry.

Part one

Part one of the literature review looked at how policy integration (mainstreaming) is defined in the literature and why it is important, and identifies barriers to policy integration and possible examples of leading practice. Of interest here is what can be learnt from the more established areas of environmental policy integration and climate policy integration for the integration of spatial planning, bushfire risk and emergency management in the context of climate change.

This review showed that the need for a

KEY STAGES OF THE RESEARCH PROJECT

1 LITERATURE REVIEW

Critical review of research literature on integrating spatial planning, bushfire risk and emergency management in the context of climate change, to be distributed to end users and key stakeholders

2 CASE STUDIES

Case studies to audit strategic and statutory planning responses to bushfire risk and emergency management, with engagement from key stakeholders to determine methodology and conduct of case studies and direct project towards industry learning needs

3 ENGAGEMENT WITH END USERS

National roundtable of key stakeholders and workshops with other targeted focus groups to present research outcomes, with engagement from policy makers and stakeholders for joint learning and to evaluate policy alternatives

4 EDUCATION AND TEACHING

Development of an education module on planning for bushfire risk and emergency management in the context of climate change, with engagement from key stakeholders to finalise course content

5 SYNTHESIS

Workshops with research program partners to present research outcomes from stages 1-4 and synthesize learning from the three research streams to evaluate policy alternatives

6 REPORTING AND EVALUATION

Final project report completed and outcomes presented to end users and other stakeholders

whole of government approach to complex policy problems has been widely accepted, particularly with respect to the areas of sustainability and the environment.

A critical survey of the academic literature points to a range of processes that variously constrain or support policy integration. These barriers to policy integration and possible examples of leading practice may be relevant to policy mainstreaming of emergency management.

The first set of themes concerns the degree or extent of policy integration across sectors and across levels of government. These themes highlight that the way in which policies are

implemented at lower levels, 'on the ground', may be very different to the way those policies were set at a higher level. The literature also recognises that complementary legal or policy frameworks could identify the existence rather than the effectiveness of policy integration.

The second set of themes emerging from the literature concerns clarity of policy objectives and consistency of policy integration. A key message from these themes is that mainstream environmental or emergency management objectives can take account of policy objectives from other sectors.



◀ **Trees, homes, risk:** The new subdivision of Molonglo in Canberra.

Photo: Jessica Weir

climate change are currently covered under environmental planning components of planning courses, additional work is needed in this space. The review notes the importance of education in bridging the gap between theory and practice, and of the role of a program of continuing education.

Key literature review themes

- **Integrating spatial planning, bushfire risk and emergency management in the context of climate change:** defining policy integration (mainstreaming) and why it is important, and identifying barriers to policy integration and possible leading practice.
 - Literature review scope: international peer-reviewed literature on policy integration or 'mainstreaming'.
- **Emergence of land use planning as an issue in bushfire risk and emergency management:** identifying the influence of planning.
 - Literature review scope: Australian bushfire inquiry reports (excluding submissions and exhibits).
- **Planning education and capacity building:** building professional capacity in the planning sector in a climate change context; establishing a tertiary education module on planning for bushfire risk, to apply more broadly to emergency management in a climate change context.
 - Literature review scope: international and Australian peer and non-peer reviewed literature on planning education.

Part two

Part two of the literature review looked at the emergence of land use planning as an issue in bushfire risk and emergency management through Australian bushfire inquiry reports. Analysis of these reports showed recognition of the importance of planning as early as the 1939 Stretton Report into the Black Friday bushfires in Victoria, which noted a lack of policy integration between the range of departments concerned with 'land utilisation' control. Moving into the 1960s, inquiries noted the importance of vegetation management and the potential impact of the growing urban fringe. The issue of changing settlement patterns and the move away from regional areas emerged in the 1970s. Despite this ongoing interest, the 1980s signalled the real beginning of the growing influence of planning in the recommendations from these inquiries. From this point forward, calls for coordinated (or improved) planning response encompassing mapping and zoning, that specified bushfire protection measures within planning instruments, became a significant recurring theme of bushfire inquiry reports.

The third theme addressed in the literature review is that of planning education and training, specifically looking at the building of professional capacity in the planning sector to respond to projected extreme weather events in the context of climate change. This

END USER STATEMENT

This project shows significant promise in delivering high quality outcomes which will assist emergency management agencies to become integrally involved in the development and land use planning process for improved public safety outcomes. I believe that the research program has been well developed under a collaborative and consultative approach and end users will gain significant benefits from the research outcomes, which will be structured and tailored to facilitate adoption by the end users quickly and effectively.

—Mick Ayre, Director, Bushfires NT

theme recognises that education and training provide a significant means of encouraging the integration of spatial planning, bushfire risk and emergency management. Key research questions in this section asked: (i) whether current planning education and training priorities adequately reflect risk – in particular, bushfire risk and emergency management in the context of climate change, and (ii) whether there is professional capacity in the planning sector to respond to projected extreme weather events in the context of climate change.

The review concluded that while some aspects of planning for risk, natural hazards and

A full copy of the literature review is available on the project page on the [Bushfire CRC website](#).

Case studies

Case studies also provide a critical foundation for this research and are the focus of current work. The case studies in Victoria, the Australian Capital Territory/New South Wales, and the Northern Territory provide a variety of geographic regions for analysis and a variety of state/territory, regional and local strategic and statutory planning responses – of both larger and smaller scale, metro and regional, and across different landscapes. Types of settlement of interest include the urban/rural interface, rural/coastal and fragmented regional settlements. The significant differences in planning systems and processes, as well as fire ecology between

and within each state or territory, enable a range of different planning approaches to be explored. The case studies are also relevant across other states because they highlight the general principles supporting an integrated spatial planning framework for bushfire risk and emergency management.

HOW THE RESEARCH IS BEING USED

This research is the first step in identifying leading practice in spatial planning for bushfire risk and emergency management in the context of climate change, and barriers and enablers to leading practice.

The literature reviews and case studies will help to develop guidelines that can be used at the local government level and by regional bodies in revising current planning systems. The case study process and research workshops will also help to set up a network of professional practitioners involved in spatial planning at the local and regional level. This network could share knowledge and experience that supports continuing professional development in this area.

Against this background, the research will also form the basis of an education module for professional and ongoing training on planning and bushfire risk, with application more broadly for emergency management in the context of climate change.

FUTURE DIRECTIONS

The next phase of the research is underway. It involves a series of focus groups with decision makers to further examine key issues raised in the literature review. The learning from the research and focus group discussions will then feed into the development of an education module in consultation with end users and the Planning Institute of Australia. In this way, the research will not only assist decision makers today but also contribute to ongoing professional training needs.



▲ Case studies will be conducted across different landscapes, including the urban/rural interface.

REFERENCES / FURTHER READING

Council of Australian Governments High Level Group, 2002, *Natural Disasters in Australia: Reforming Mitigation, Relief and Recovery Arrangements*, Commonwealth of Australia, Canberra.

Norman B, Sullivan K, 2011, Planning for risk and uncertainty: new approaches for managing urban growth, paper presented at the AFAC and Bushfire CRC conference, Sydney Convention and Exhibition Centre, Australia, 29 August – 1 September, http://knowledgeweb.afac.com.au/research/risk/urban/Planning_for_Risk_and_Uncertainty_New_approaches_to_managing_urban_growth

Sullivan K, Norman B, 2011, *Annual Report 2010-2011: First Year of the Urban and Regional Planning for Risk and Uncertainty Project*, www.bushfirecrc.com/publications/citation/bf-3179

Sullivan K, Norman B, 2012, Spatial planning, wildfire risk and climate change: shared responsibility and adaptive capacity to build resilience, paper presented at the Third Human Dimensions of Wildland Fire Conference 2012, Seattle, http://www.iawfonline.org/HD_Seattle_2012/program.php

Fire Note is published jointly by the Bushfire Cooperative Research Centre (Bushfire CRC) and the Australasian Fire and Emergency Service Authorities Council (AFAC). This Fire Note is prepared from available research at the time of publication to encourage discussion and debate. The contents of the Fire Note do not necessarily represent the views, policies, practices or positions of any of the individual agencies or organisations who are stakeholders of the Bushfire CRC.

Bushfire Cooperative Research Centre
Level 5/340 Albert Street
East Melbourne VIC 3002
Telephone: 03 9412 9600
www.bushfirecrc.com

Bushfire CRC is a national research centre in the Cooperative Research Centre (CRC) program, formed in partnership with fire and land management agencies in 2003 to undertake end-user focused research.
Bushfire CRC Limited ABN: 71 103 943 755

Australasian Fire and Emergency Service Authorities Council
Level 5/340 Albert Street
East Melbourne VIC 3002
Telephone: 03 9419 2388
www.afac.com.au

AFAC is the peak representative body for fire, emergency services and land management agencies in the Australasia region. It was established in 1993 and has 35 full and 10 affiliate member organisations.