Government
of South Australia

State Bushfire Coordination Committee

Interim
SOUTH AUSTRALIAN
STATE BUSHFIRE MANAGEMENT PLAN

PART TWO

STATE BUSHFIRE RISK MANAGEMENT PLAN
(incorporating the
State Bushfire Hazard Plan)

October 2010

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INFORMATION FOR PUBLIC CONSULTATION

This document has been prepared by the State Bushfire Coordination Committee (SBCC) pursuant to Section 73 of the *Fire and Emergency Services Act 2005* (SA).

The SBCC has determined that this draft Interim State Bushfire Management Plan will be exhibited for public consultation for a period of four (4) weeks - commencing on 28th October 2010 and concluding on 26th November 2010 - during which time written submissions are invited from the public.

As such, members of the public, whether as private individuals or as members of community interest groups, are invited to comment on the plan. Submissions should be in writing, and as detailed and specific as possible. However, any comments, no matter how brief or general are welcome. All comments received will be referred to the State Bushfire Coordination Committee with the plan for their final deliberation and approval.

The closing date for public comments on this plan is Friday 26th November 2010.

Comments should be forwarded to:

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PREAMBLE

The preamble provides the context for this interim iteration of the State Bushfire Management Plan.

Pursuant to Section 73 of the *Fire and Emergency Services Act 2005* (SA), the State Bushfire Coordination Committee is required to prepare a State Bushfire Management Plan. The legislation prescribes the contents of the plan as follows:

> *s.73*
> *(2) The plan is to set out principles, policies and standards for bushfire management in the State from a high-level or strategic perspective.*
> *(3) The primary purpose of the plan is to identify major bushfire risks in the State and recommend appropriate action that will provide protection to life, property and the environment from the effects of bushfires.*
> *(4) Without limiting subsection (2), the plan must—*
> *(a) set out principles to be applied in achieving appropriate levels of hazard reduction for bushfire management; and*
> *(b) outline strategies to achieve the State-wide coordination and integration of bushfire management activities; and*
> *(c) set standards or requirements that must be applied or observed in the preparation and implementation of Bushfire Management Area Plans; and*
> *(d) include or address other matters prescribed by the regulations or specified by the Minister after consultation with the Chief Officer of SACFS.*

The State Bushfire Coordination Committee has resolved that an Interim State Bushfire Management Plan (SBMP) should be prepared for the 2010/2011 Fire Danger Season, with the full plan to be prepared prior to the 2011/2012 Fire Danger Season. The SBCC further resolved that, given the extent of the material to be covered within the SBMP, the plan be divided into three parts, as set out below.

Part 1: a State level landscape based assessment of bushfire risk (s.73(3))

Part 2: a plan of bushfire management arrangements, encompassing:

a. strategic management policy and principles, including definition of scope of risk treatments (ss.73(2); 73(3))
b. strategic approach to hazard reduction (s.73(4)(a))
c. strategies for state-wide coordination and integration of bushfire management activities (s.73(4)(b))

To assist in meeting the requirements of a Hazard Leader Plan under the SEMP, it is proposed that Part 2 of the SBMP be structured in accordance with a PPRR (Prevention, Preparedness, Response and Recovery) framework.

Part 3: a statement of requirements for bushfire management area plans (s.73(4)(c))

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In this Interim State Bushfire Management Plan, the following elements are presented:

Part 1: Statewide Bushfire Risk Assessment

Information collated to date to support bushfire risk assessment throughout South Australia. A substantial amount of data is being collated to assist Bushfire Management Committees to prepare Bushfire Management Area Plans, and this process is ongoing.

Part 2: Plan of Bushfire Management Arrangements

An interim statement of the legislative context for bushfire management, bushfire management policy principles, and the scope of their implementation within South Australia, including the required elements of the Hazard Leader Plan under the State Emergency Management Plan.

Part 3: Bushfire Management Area Planning Guidelines

The SBCC has approved interim Bushfire Management Area Planning Guidelines for Bushfire Management Committees while the New South Wales Rural Fire Service (NSW RFS) Bushfire Risk Management Planning Guidelines are under review and adaptation for South Australia.

The Planning Guidelines will include processes for incorporation of existing land management agency fire management plans and local government works plans.

Please note:
It is important to highlight that the State Bushfire Management Plan is a strategic level document designed to provide policy direction for fire, emergency and land management agencies and Bushfire Management Committees. It should not be mistaken for a document providing guidance to the general public.

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INTRODUCTION

Part Two of the State Bushfire Management Plan (SBMP) seeks to address the following requirements of the *Fire and Emergency Services Act 2005* (SA), providing a statement of:

- strategic management policy and principles for bushfire management, including definition of the scope of treatments for mitigation of bushfire risk to provide protection to life, property and the environment (ss.73(2); 73(3));
- the strategic approach to hazard reduction (s.73(4)(a)); and,
- strategies for state-wide coordination and integration of bushfire management activities (s.73(4)(b)).

In addressing these legislative requirements, this part of the SBMP provides a comprehensive statement of South Australia's bushfire management policy. It is divided into three sections:

- a context statement, encompassing legislative requirements, governance and administrative arrangements, and a brief history and overview of the current status of mitigation, response and recovery planning for bushfire in South Australia;

- an outline of the policy framework underpinning bushfire management in South Australia; and,

- a statement of strategies and priorities for implementation of bushfire management policy in South Australia, that addresses the requirements of the former hazard leader plan for bushfire, as established by the State Emergency Management Plan.

  In this section of the plan, within the relevant stages of the emergency management process, the following matters are addressed:

  - the full suite of bushfire risk treatments to be applied in South Australia
  - matters that may be addressed by codes of practice
  - state level targets for key risk treatments, including hazard reduction and community education
  - arrangements for inter-agency cooperation and for coordination of resources between agencies
  - arrangements for intra-fire agency coordination
  - processes for engagement and support of local government
  - processes for engagement and support of private landholders.

As the Bushfire Hazard Leader, the core Vision and Mission of the SA CFS inform the framework of the interim State Bushfire Management Plan.

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The SA CFS Vision is:

> *A Safer Community*

and the SA CFS Mission is:

> *To protect life, property and the environment from fire and other emergencies whilst simultaneously supporting and ensuring the safety of CFS personnel and subscribing to continuous improvement in business and operational activities.*

NOTE: In this interim iteration of SBMP, due to timeframe constraints, policy elements are scoped, with further detail to be finalised in the full version of this document prior to the 2011/2012 Fire Danger Season, pursuant to resolution of the State Bushfire Coordination Committee. Where further detail is to be added this is noted in the text.

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1. CONTEXT STATEMENT

This section of the SBMP provides the context for the plan as a whole. It outlines the legislative requirements, governance and administrative arrangements for, and current status of, bushfire management planning in South Australia.

1.1 Legislative Requirements

There are a number of statutes and subordinate legislation of *direct* relevance to bushfire management in South Australia:

- *Fire and Emergency Services Act 2005 (SA)*
- *Fire and Emergency Services Regulations 2005 (SA)*
- *Emergency Management Act 2004 (SA)*
- *Emergency Management Regulations 2009 (SA)*
- *Native Vegetation Act 1991 (SA)*
- *Native Vegetation Regulations 2003 (SA)*
- *National Parks and Wildlife Act 1972 (SA)*
- *Wilderness Protection Act 1992 (SA)*
- *Crown Land Management Act 2009 (SA)*
- *Environment Protection and Biodiversity Conservation Act 1991 (Cth)*
- *Forestry Regulations 2005 (SA)*
- *Waterworks Regulations 1996 (SA)*
- *Development Act 1993 (SA)*
- *Development Regulations 2008 (SA).*

The *Natural Resources Management Act 2004* (SA) also provides an environmental management framework for natural resources in South Australia, although it does not directly address fire management.

Among other matters, the *Fire and Emergency Services Act 2005 (SA)* provides the legislative framework for bushfire management in South Australia, including mandating governance and planning arrangements. Further detail regarding these arrangements is provided in sections 1.1.1 and 1.1.2 below.

The *Emergency Management Act 2004* (SA) provides a framework for emergency incident response and recovery. Further detail is provided in section 1.1.3 below.

The *Native Vegetation Act*, *National Parks and Wildlife Act*, *Wilderness Protection Act, Crown Land Management Act* and the Commonwealth *Environment Protection and Biodiversity Conservation Act* provide the regulatory framework for environmental management, and fire management in protected areas. Further detail regarding this regulatory framework is provided in section 1.1.4 below.

The *Forestry Regulations* and the *Waterworks Regulations* specify particular requirements of the managing agencies in relation to fire prevention and suppression matters.

The *Development Act* and *Regulations* support the identification of bushfire prone areas and the introduction of, and compliance with, specific conditions regarding the management of building and construction these areas.

It is noted that there is other State legislation with which elements of bushfire management must comply, such as heritage protection and infrastructure management.

1.1.1 Governance

The *Fire and Emergency Services Act 2005 (SA)* mandates a two tiered structure for bushfire management in South Australia, establishing the State Bushfire Coordination Committee (SBCC), and Bushfire Management Committees (BMCs), based upon Bushfire Management Areas (BMAs).

The two tiered structure replaces the former three tiered structure, which was comprised of:

- District Bushfire Prevention Committees established and managed by local government;
- Regional Prevention Committees established and managed by SA CFS within each CFS administrative Region; and,
- the South Australian Bushfire Prevention Advisory Committee, managed by SA CFS at the State level.

The critical statutory and practical role of both the new State level and BMA level Committees is to coordinate bushfire management arrangements to maximise community safety and support appropriate environmental management. The development and implementation of Bushfire Management Area Plans (BMAPs) - refer 1.1.2 below - is the key tool to support this coordination process.

Both the SBCC and the BMCs include staff and volunteer representatives of the bushfire hazard leader, emergency management and land management agencies, providing the structural basis for improved integration and coordination of bushfire management activities at both State and regional levels.

The roles and functions of the SBCC and the BMCs are detailed in the *Guidelines for the State Bushfire Coordination Committee and Bushfire Management Committees*, endorsed by the SBCC. These Guidelines establish the terms of reference and operating protocols for the Committees, and their Standing Committees.

1.1.2 Bushfire Management Planning

The *Fire and Emergency Services Act 2005 (SA)* requires the SBCC to prepare and maintain a State Bushfire Management Plan, which is to:

- identify the major bushfire risks in the State and recommend appropriate action that will provide protection to life, property and the environment from the effects of bushfires (s.73(3));

- set out principles, policies and standards for bushfire management in the State from a high level or strategic perspective, including:
    - principles to be applied to achieve appropriate levels of hazard reduction
    - strategies for State-wide coordination and integration of bushfire management activities
    - set standards and requirements for the development and implementation of BMAPs
    - address other matters prescribed by the regulations or requested by the Minister (s.73(4)).

The State plan is to be reviewed at least once every four years. A statutory public consultation period on the draft SBMP of six weeks is required.

As intended by the recommendations of the *Ministerial Review of Bushfire Management Arrangements*, and resolved by the SBCC, the SBMP will also incorporate the State Bushfire Hazard Leader Plan (refer 1.1.3 below).

As noted above, the SBMP is required to establish guidelines for the development of bushfire management area plans (BMAPs). These are to be landscape scale, risk based plans, operating at a strategic level to assist in the coordination and integration of bushfire management activities among land and emergency management agencies. The development of BMAPs requires opportunities for extensive community engagement, including CFS volunteers formerly involved in the district bushfire prevention planning process through the former district level committees. Part Three of the State Bushfire Management Plan will establish the detailed Guidelines for Bushfire Management Area planning.

The SBCC has resolved that the Guidelines for BMAPs will be based upon an adaptation of the New South Wales Rural Fire Service (NSW RFS) bushfire risk management planning guidelines, piloted in South Australia in 2008-2009 on Kangaroo Island. The NSW RFS planning framework is a risk based, landscape scale approach that meets South Australian requirements, and is widely regarded as a best practice fire management planning framework in Australia. The SBCC has also resolved that the guidelines are to meet the recently revised Australian Standard for risk management, known as the Australian/New Zealand Standard Risk Management Principle and Guidelines AS/NZS ISO 31000:2009.

1.1.3 Emergency Management Planning

Section 9(1)(b) of the *Emergency Management Act 2004 (SA)* requires the State Emergency Management Committee (SEMC) to prepare and keep under review a State Emergency Management Plan (SEMP). The SEMP designates the SA CFS as the hazard leader for rural fire. Hazard leaders are required to report to the SEMC through the State Mitigation Advisory Group (SMAG).

The SEMP outlines the role of hazard leaders, and the requirements of hazard leader plans, as follows:

45. *Hazard Leaders work with the various Advisory Groups and Functional Services in order to ensure that all aspects of the State's approach to a hazard, including mitigation, response and recovery measures are coordinated. This may include, but not be limited to areas such as risk assessments for the State relative to a particular hazard, land use planning, engineered preventative actions, Natural Disaster Mitigation Program works, specific training for response agencies, public information and specific recovery needs.*
46. *The review function of Hazard Leaders operates horizontally across the aspects of Prevention, Preparedness, Response and Recovery.*
47. *The objective of the Hazard Leader Organisation is to identify and gather together a group of Government, non-Government and if necessary private agency stakeholders and develop a State level plan for an identified hazard and any sub-hazards that may be applicable to the same topic.*
48. *Where any agency planning conflicts with the Hazard Leader, the matter shall be referred to SEMC.*
49. *Hazard Leaders are to ensure that appropriate processes are in place for Control Agencies to gather information about potential incidents.*
50. *Hazard Leaders are to ensure that their hazard plan includes any particular issues relative to evacuation of the public and planning for that to occur .*[1]

The existing SA CFS Hazard Leader Plan is incorporated within this interim SBMP in order to meet the requirements of the State Emergency Management Plan. It is expected that a more comprehensive integration of the hazard leader planning requirements will be incorporated within the full version of the SBMP to be prepared prior to the 2011/2012 Fire Danger Season.

1.1.4 Environmental Approvals

Fire management activities impacting upon native vegetation are regulated at a State level under the *Native Vegetation Act 1991 (SA)*, and where activities are not exempted under the Regulations, require the approval of the Native Vegetation Council. In September 2009, the South Australian government amended the *Native Vegetation Regulations 2003 (SA)* regarding fire management, and delegated approval of some activities supporting hazard reduction and asset protection to the SA CFS.

Where fire management activities may impact upon matters of national environmental significance, they may require referral under the *Environment Protection and Biodiversity Conservation Act 1999 (Cth)* ['the EPBC Act']. The Department of Environment and Natural Resources (DENR) is currently in the process of developing an agreed process with the Australian Government Department of Environment, Water, Heritage and the Arts (DEWHA) to enable delegation of authorisation of DENR fire management plans under the EPBC Act to the State level.

[1] Government of South Australia, 2010, *State Emergency Management Plan*, Adelaide, p.15.

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1.1.5 Protected Area and Reserve Management

Under the *Fire and Emergency Services Act 2005* land managers must take reasonable steps to prevent or inhibit the spread of bushfires across the landscape.

1.1.5.1 Fire Management on Protected Areas

(Extracted from the Department of Environment and Natural Resources "Fire Policy and Procedure Manual", 2009).

The objectives of protected area management, under Section 37 of the *National Parks and Wildlife Act 1972,* include “the prevention and suppression of bushfires and other hazards”. The Wilderness Code of Management, adopted under Section 12 of the *Wilderness Protection Act 1992*, establishes the objectives of wilderness management and includes management principles relating to fire.

Both Acts require the preparation of Reserve Management Plans for reserves proclaimed under these Acts. Reserve Management Plans adopted by the Minister for Environment and Conservation provide policy objectives for the management of fire in reserves. Fire Management Plans will be consistent with the objectives of the Reserve Management Plan for that reserve.

Under the *Crown Lands Management Act 2009* DENR has responsibilities for fire management on all Crown land under the care and control of the Minister for Environment and Conservation. The Minister for Environment and Conservation is not responsible for fire management on Crown leasehold land or Crown land dedicated to another government Minister, person or body.

1.1.5.2 Fire Management on Forestry and Water Reserves

In order to meet their obligations under the *Fire and Emergency Services Act 2005* (SA), both SA Water and ForestrySA prepare and implements fire management plans for reserves under their management.

1.1.6 Development Assessment

The *Development Act 1993* (SA) provides the framework for enactment of regulations regarding planning and building to address bushfire protection requirements. In South Australia the planning policy is enacted through Development Plans which provide appropriate zoning within the landscape and conditions on development. The planning framework is complemented by building construction regulation and a Ministerial Code specifying additional building requirements in bushfire prone areas.

1.2 Governance and Administrative Arrangements

1.2.1 Governance

The SBCC has endorsed Guidelines for the governance of the State Bushfire Coordination Committee and the Bushfire Management Committees. The Guidelines are designed to support the Committees to function in a consistent and accountable manner.

The Guidelines also establish governance arrangements within BMCs to support the Bushfire Management Area Planning process.

The State Bushfire Coordination Committee is required to provide an annual report on its operations and performance against the State Bushfire Management Plan to the Minister for Emergency Services. Bushfire Management Committees will be required to report to the SBCC against their Bushfire Management Area Plans. BMC annual reports will be incorporated within the SBCC Annual Report. Part 3 of the State Bushfire Management Plan, being the Guidelines for Bushfire Management Area Planning, will incorporate the detailed requirements for Bushfire Management Committee Annual Reports. The full version of this document, to be prepared prior to the 2011/2012 Fire Danger Season, will also incorporate the detailed reporting requirements for the SBCC.

The reporting template is to be included in the *Guidelines for the SBCC and BMCs*.

1.2.2 Administrative Arrangements

The SBCC has endorsed Guidelines for the management of the State Bushfire Coordination Committee and the Bushfire Management Committees. These Guidelines identify and define the roles of chairpersons, executive officers and members of the Committees. The Guidelines also include administrative procedures to support Committee processes.

The State Bushfire Management Plan encompasses guidelines for the development and maintenance of Bushfire Management Area Plans (BMAPs), including the administrative arrangements supporting the development and implementation of BMAPs.

1.3 Current Status of Bushfire Management Planning in South Australia

It is important to understand the current status of bushfire management planning in South Australia, in order to provide a perspective on the process to be undertaken in managing the transition to the new bushfire management area planning framework. An outline of existing planning approaches is provided below.

The existing bushfire mitigation planning framework effectively operates in two 'streams':

- fire prevention planning within CFS and local government;

  and

- fire management planning undertaken by South Australian land management agencies.

The processes used are different in each case, and the two 'streams' are not currently integrated in any formal way.

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Fire Management Planning within CFS and Local Government

The existing mitigation planning framework reflects the former three tiered structure for bushfire prevention, with District Bushfire Prevention Committees based within local government preparing District Bushfire Prevention Plans, and Regional Prevention Committees having Regional Prevention Plans that are largely business-related documents for CFS Regions.

The SA CFS also maintains a State Bushfire Prevention Plan, endorsed by the former South Australian Bushfire Prevention Advisory Committee, which provides context information regarding bushfire in South Australia, and outlines the range of activities undertaken to assist in mitigating the impacts of bushfire in the State. Pursuant to the requirements of the South Australian Emergency Management Plan, as the bushfire hazard leader, SA CFS also maintains a Hazard Leader Plan for bushfire, pursuant to the State Emergency Management Plan. This plan is structured around a PPRR framework, and is maintained by the Operations Planning Section within CFS.

Regional Prevention Plans are prepared by SA CFS Regions and are focused on supporting CFS business delivery.

Although CFS has sought to promote consistency in district level prevention planning, through training of Fire Prevention Officers within local government, there is significant variation in district bushfire prevention plans. While a number of Councils have begun to shift towards a risk based approach, the planning framework remains predominantly hazard based, and is focused upon hazard reduction, primarily for built asset protection within and around townships and on Council managed lands. This provides minimal capacity for prioritisation of mitigation treatment activities. Some district plans incorporate community education activities. A number of district plans provide an overview of the fire management context and identify assets within the plan area. Although some Councils may undertake community consultation during the preparation or review of district plans, there are no formal requirements for community engagement.

As outlined in the *Ministerial Review of Bushfire Management Arrangements*, there is a lack of integration and coordination of existing bushfire prevention planning in South Australia; the plans do not use consistent data as the basis for decision-making; they do not treat risk; and they are not developed through engagement with all relevant stakeholders (*Ministerial Review of Bushfire Management Arrangements*, pp.8-9).

Fire Management Planning in SA Land Management Agencies

The Department of Environment and Natural Resources [DENR] has developed a fire management planning policy and process that supports preparation of fire management plans for reserve areas under its care and control, based on *AS 4360 Risk Management*. The risk assessment undertaken considers environmental and life and property values. This planning approach has been in place since 2003. In recent years the process has been expanded in some areas to incorporate lands

neighbouring reserves. These plans encompass both mitigation and response measures, and incorporate a fire management zoning framework based upon the COAG agreed standard (the Council of Australian Governments, *National Inquiry on Bushfire Mitigation and Management*, 2005, pp. 125-126). In addition to engagement of relevant neighbouring landholders and managers during the preparation of the plans, there is a formal public consultation period on the final draft documents. SA Water [SAW] has also been utilising the DENR fire management planning framework to prepare plans for reserves under its care and control since 2008.

DENR has developed ecological fire management guidelines providing indicative fire regimes for fire prone Major Vegetation Subgroups (MVS) in South Australia. These guidelines are currently applied in allocation of risk treatments within DENR fire management plans, but have application throughout the South Australian landscape, across all tenures.

Fire management plans prepared by land management agencies are not currently formally integrated with CFS and local government prevention planning. In some cases agency fire management plans are referenced within District Bushfire Prevention Plans. Some information exchange has also occurred between CFS, local government and land management agencies at the Regional Prevention Committee level. However, there is no structural integration of the planning processes and no consistent statewide approach to coordination of existing plans.

Summary of Differences Between Former and New Planning Frameworks

The table below provides a summary overview of the key differences between the former bushfire prevention planning approach and the new Bushfire Management Area Planning approach. The table highlights some of the significant changes in policy and management approach required to effect the transition to the new planning framework.

Bushfire Prevention Planning	**Bushfire Management Area Planning**
• Hazard based • bushfire hazard + bushfire threat + assets + vulnerability = bushfire threat • Lack of consistency in application of methodology • Limited capacity to prioritise resource allocation	• Risk based • likelihood + consequence (threat + vulnerability) = risk rating • identification and allocation of risk treatments • based on AS 4360 (now AS ISO31000), guidelines for application • capacity to prioritise resource allocation across the landscape
District plans tend to focus on Council managed lands and townships Regional and State plans focused on CFS business delivery	Landscape scale, “tenure blind” (all tenures)

District plans developed by local government with DBPCs; Regional and State plans developed internally by CFS – no coordination	BMAPs developed collaboratively by all land management agencies and the hazard leader through BMCs
Business focused	Strategic level planning – implementation by agencies addresses business and operational planning
Brigade input into District plans through DBPCs	Brigade, agency and structured community input through planning process
Prevention focused	Incorporates PPRR approach

1.4 Interim Bushfire Management Planning Arrangements

Due to the recent formation of the Bushfire Management Committees, and the substantial changes required to implement the new Bushfire Management Area Planning process, the SBCC has resolved to develop interim Bushfire Management Area Plans. The interim planning process will assist in supporting an orderly transition from the former prevention planning processes to the new framework, including the management of limited resources.

Interim Bushfire Management Area Plans will incorporate preliminary risk assessment information for the BMA from Part One of the interim SBMP, together with context and existing risk treatment information from Regional and District Bushfire Prevention Plans. Interim BMAPs will be prepared using a standard plan template that will incorporate elements of bushfire risk management process that are consistent with the proposed adaptation of the NSW RFS bushfire risk management planning process.

A significant element in managing the transition from the former planning process to the new BMAP process is to document existing risk treatment options, and to:

a. identify how well and whether they are managing areas of highest bushfire risk; and,

b. identify whether and how well they are aligned to current South Australian government bushfire management policy.

The interim BMAP process will assist in this process by initially documenting all of the existing risk treatments within a BMA, and then assessing these against both the preliminary risk assessment and current risk treatment policy.

This process will enable the interim plans to provide guidance to BMCs regarding appropriate risk treatment priorities within their BMA until a comprehensive BMAP is developed, as it will not be possible to develop all nine BMAPs simultaneously, due to resource constraints.

The interim statewide bushfire risk assessment will provide the basis for prioritisation of the Bushfire Management Area Planning process. The BMAPs will need to be developed on a rolling basis, with the areas of highest bushfire risk being addressed first.

1.5 Summary

Bushfire management in South Australia is required to meet specific legislative requirements under relevant fire, protected area, emergency and environmental management legislation.

The State Bushfire Coordination Committee and Bushfire Management Committees replace the former three tiered bushfire prevention structures in South Australia. These committees provide structural integration of emergency and land management agencies, and provide the basis for improved coordination of bushfire management within the State. The SBCC has endorsed Guidelines to support the operation of the SBCC and the BMCs.

A key function of the SBCC is to prepare the State Bushfire Management Plan, which is to establish the guidelines for Bushfire Management Area Plans to be prepared by Bushfire Management Committees.

A brief overview of the existing bushfire mitigation planning frameworks in South Australia indicates that:

- existing bushfire prevention plans at District, Regional and State levels are largely hazard based, and hazard reduction focused;
- land management agency plans (DENR and SAW) are based on the Australian Standard for Risk Management and incorporate a zoning framework reflecting agreed COAG principles; and,
- there is no formal coordination of, or integration between, bushfire prevention plans at each level, or between these plans and land management agency plans.

The SBMP is required to provide guidelines for bushfire management planning, and these will be set out in Part Three of the SBMP.

The SBCC has resolved to adapt the New South Wales Rural Fire Service bushfire risk management planning guidelines to support the development of Bushfire Management Area Plans in South Australia. Until full BMAPs are developed, the SBCC has resolved that BMCs will develop Interim Bushfire Management Area Plans based upon the preliminary risk assessment for each BMA contained in the interim SBMP, together with relevant information from Regional and District prevention plans. These interim plans will provide guidance to BMCs regarding risk treatment priorities.

2. POLICY FRAMEWORK

2.1 Overview

The amended *Fire and Emergency Services Act 2005* (SA) mandates an integrated and coordinated approach to bushfire management for South Australia, encompassing a risk based, landscape scale, and collaborative framework. Within the operating context of the SBCC and the Bushfire Management Committees, which are structured to support and encourage a collaborative management approach, the State Bushfire Management Plan establishes the policy context for the bushfire management framework.

As is apparent from the overview provided in Section One, this will require some adjustment of existing planning and management approaches. Wherever possible and appropriate, existing approaches that are consistent with the new framework need to be integrated and built upon. However, some substantial changes are required to address the new legislative requirements, systematically incorporate a risk management approach, and to address recent national and State level changes in bushfire management policy.

The integration of risk management across the bushfire and emergency management framework will impact upon systems of work. Initially the implementation of this framework will require the development of:

- a statewide bushfire risk assessment, and
- a statewide suite of risk treatments.

The development of a statewide risk assessment is a significant task. The collation of data to support this risk assessment process in South Australia is well underway. The development of interim Bushfire Management Area Plans will support the inclusion of local input into a preliminary risk assessment process, with more detailed iterations informing decision-making as full BMAPs are developed.

The SBMP provides the policy framework for treatment strategies to manage bushfire risk. These strategies can be divided into a hierarchy of approaches:

- *Risk avoidance* - eg. strategies that limit the likelihood or eliminate the consequences of bushfire, such as restrictions on development.
- *Risk reduction* - eg. strategies to reduce the likelihood of ignitions and fire spread, such as hazard reduction and arson management, and to reduce the consequential impacts of bushfire, such as enforcement of building standards, maintaining fire access tracks, and effective incident management.
- *Risk transfer* - eg. strategies that share the responsibility between fire agencies and the community, such as targeted community education.

- *Risk consolidation* - eg. strategies that aggregate outcomes, such as landscape scale planning and management.

- *Management of residual risk* - eg. strategies that manage the risk that cannot be addressed through avoidance, reduction, transfer or consolidation strategies, such as operational response planning, bushfire survival planning, and evacuation planning.[2]

Within this interim plan document the broad policy framework for bushfire management is scoped to provide direction regarding the approaches to be implemented. A comprehensive and detailed policy statement will be included in the full State Bushfire Management Plan to be completed prior to the 2011/2012 Fire Danger Season.

The initial policy framework is divided into three key areas:

- community safety;
- landscape scale bushfire management; and
- incident management.

An outline of the key principles in each area is provided below. The next section of the plan (Section Three) addresses policy implementation issues within the overall framework, and incorporates the requirements of the hazard leader plan.

2.2 Community Safety

Community safety has always been a core policy priority of fire agencies, and Australia is recognised as a world leader in this area. As noted earlier in this document, the core vision of the SA CFS as the Bushfire Hazard Leader for South Australia is "a safer community".

Following the Black Saturday fires in Victoria in February 2009, there has been significant national collaboration on the refinement of the "prepare, stay and defend or go early" policy. Many of these refinements have been based upon key lessons learned from the Black Saturday fires, through the extensive research conducted by the Bushfire Cooperative Research Centre following the incidents.[3]

2.2.1 Statement of Principles

The Australasian Fire Authorities Council (AFAC) has developed an agreed national position on "Bushfires and Community Safety" (September 2010). The principles contained in this position statement form the basis for community safety policy in relation to bushfire management in South Australia. Both existing and developing State policy approaches are encompassed within this framework, which is based upon the principles listed below.

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[2] Refer the *National Inquiry on Bushfire Mitigation and Management (2005)*, pp. 47, 49-50; also Borchers, J. (2005), "Accepting uncertainty, assessing risk: Decision quality in managing wildfire, forest resource values and new technology," *Forest Ecology and Management 211*, pp. 41-42.

[3] For further information see: http://www.bushfirecrc.com/research/taskforce2009.html

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1. *The protection of people is always the highest priority*

2. *Fire agencies should give priority to informing and protecting people, and protecting the assets communities value*

3. *Firefighting resources will not always protect every property*

4. *Managing risk and reducing loss is a shared responsibility between government, communities and individuals*

5. *Sound policy and planning is essential for effective bushfire mitigation.*

6. *Fire agencies and their partners should implement a broad range of risk reduction measures*

7. *Fire agencies should engage with at-risk communities, and seek to influence their preparedness for bushfire*

8. *People in bushfire-prone areas should make their own decisions and preparations for how they will respond to the bushfire threat*

9. *People threatened by bushfires need ready access to accurate information and timely warnings to take effective action*

10. *People usually have two safe options when threatened by bushfire: leaving early or staying and defending adequately prepared properties. Leaving early is always the safest option*

11. *Many people fail to prepare adequately for bushfires, leave it too late to make critical decisions, and have few safe options. They are vulnerable and need direction*

12. *Vulnerable people who cannot cope with bushfire may need assistance to relocate well before fire impacts*

13. *Large scale evacuation is not the default option, although in some circumstances it may be the safest option*

14. *Incident controllers should seek information that will enable them to make decisions about whether or not to recommend evacuation*

15. *Last minute relocation or evacuation is dangerous*

16. *Road access must be carefully managed during fire events*

17. *Fire agencies can and should support community recovery*

A critical element in supporting the effective delivery of community safety measures across the Prevention, Preparedness, Response and Recovery (PPRR) framework

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is ensuring that mitigation (prevention and preparedness) measures with response and recovery implications are effectively incorporated within incident management and recovery doctrine.

2.2.2 Prepare. Act. Survive

South Australia has adopted the national policy of *'Prepare. Act. Survive',* jointly prepared by Australian fire agencies and endorsed by the Australian Emergency Management Committee. This is linked to the new national Fire Danger Rating (FDR) system and the scaled warnings system. The new FDR system introduces a number of new fire danger ratings which are intended to be used by the community as triggers for actions defined in their Bushfire Survival Plan. Each FDR category has an associated recommended action based on expected fire behaviour under the forecast weather conditions. With the highest category it is recommended that "leaving early is the safest option".

	Fire Danger Rating	What Does it Mean?	What Should I Do?

• Fires can threaten suddenly and without warning
• Watch for signs of fire, especially smoke and flames
• Know the Fire Danger Rating in your area and be aware of local conditions
• Have your Bushfire Survival Plan and kit ready
• Call 000 to report a fire
• To seek information listen to local radio, go to www.cfs.sa.gov.au or call the Bushfire Information Line on 1300 362 361 (TTY 133 677)
	Catastrophic	• These are the worst conditions for a bush or grass fire.
		• If a fire starts and takes hold, it will be extremely difficult to control and will take significant fire fighting resources and cooler conditions to bring it under control.
		• Spot fires will start well ahead of the main fire and cause rapid spread of the fire. Embers will come from many directions.
		• Homes are not designed or constructed to withstand fires in these conditions.
		• The safest place to be is away from bushfire prone areas.
			YOU NEED TO ACT NOW
			• Put your survival first and leave bushfire prone areas the night before or early in the day – this is your safest option.
			• Act immediately – do not wait and see
			• Avoid forested areas, thick bush or long, dry grass;
			• Prepare, know and practise a plan for:
			  ◦ When you will leave
			  ◦ How you will get there
			  ◦ What you will do if you cannot leave
			  ◦ Where you will go
			  ◦ When you will return

	Extreme	• These are very hot, dry and windy conditions for a bush or grass fire. • If a fire starts and takes hold, it will be unpredictable, move very fast and very difficult for fire fighters to bring under control. • Spot fires will start and move quickly. Embers may come from many directions. • Homes that are prepared to the highest level, have been constructed to bushfire protection levels and are actively defended **may** provide safety. • You must be physically and mentally prepared to defend in these conditions. • The safest place to be is away from bushfire prone areas.	YOU NEED TO GET READY TO ACT • Only stay with your property if you are prepared to the highest level. This means your home needs to have been constructed to bushfire protection levels e.g.; enclosed eaves, covers over external air conditioners, metal flyscreens etc. • You must be well prepared and able to actively defend your home if a fire starts. This means you have the right equipment and resources to put out fires around your home e.g.; enough water supply, petrol/diesel portable pump, generator, protective clothing etc. • If you are not prepared to the highest level, leaving bushfire prone areas early in the day is your safest option.
	Severe	• These are hot, dry and possibly windy conditions for a bush or grass fire. • If a fire starts and takes hold, it will be hard for fire fighters to bring under control. • Well prepared homes that are actively defended can provide safety. • You must be physically and mentally prepared to defend in these conditions.	YOU NEED TO BE AWARE • Well prepared homes that are actively defended can provide safety. This means you have the right equipment and resources to put out fires around your home e.g.; enough water supply, petrol/diesel portable pump, generator, protective clothing etc. • If you are not prepared, leaving bushfire prone areas early in the day is your safest option.
	Very High **High** **Low - Moderate**	• If a fire starts, it is likely to be controlled in these conditions and homes can provide safety. • Be aware of how fires can start and reduce the risk.	• Check your Bushfire Survival Plan. • Monitor conditions. • Action may be needed. • Leave if necessary.

The principles of the Prepare. Act. Survive. policy are set out below.

Prepare. weeks and months before the fire season
You must make important decisions before the fire season starts.

- Know and understand you bushfire risk
- Prepare yourself, your family, your home and property for bushfires. Experiencing a bush or grass fire is physically and psychologically demanding.
- Prepare a bushfire survival plan - a good plan is a practiced plan.

Act. upon the daily fire danger ratings (refer table on previous page)
The higher the fire danger rating, the more dangerous the conditions.

- Know the fire danger rating for your area and what you need to do
- Put your preparations into action - don't wait and see

Survive. during a fire
Fires may threaten without warning - know what you will do to survive

- Monitor conditions, know the bushfire alert levels and keep up to date through local radio and websites
- You need to know what to do if caught in a fire, you may be threatened by a fire without any warning
- Make decisions and take action to protect you and your family
- The safest place is away from the fire - your life and survival is the highest priority

2.3 Landscape Scale Bushfire Management

A critical element of fire management is supporting life protection as the key priority, while also maintaining and enhancing biodiversity outcomes. There are a number of policy approaches in place in South Australia to support this balance.

A critical policy element in the new planning framework is that it is to occur at a landscape scale. Considering fire at a landscape scale supports the management of environmental values across the whole landscape. This approach also recognises that fire does not stop at property boundaries and may travel across all tenures, and provides a sound basis for strategic assessment of areas within the landscape at greatest risk from bushfire. This includes a recognition of the importance of maintaining and enhancing biodiversity through this process.

The Bushfire Management Area Planning framework is based upon large landscape areas within the State.

Co-operative management arrangements among public land management agencies and the rural fire hazard leader are also in place in South Australia to support the delivery of landscape scale bushfire management.

2.3.1 Heads of Agencies Agreement

In September 2009 the SA Country Fire Service, the Department of Environment and Natural Resources, ForestrySA and SA Water concluded a Heads of Agencies agreement in order to "co-operate in the management of fire in high fire risk areas to improve public safety, reduce the risk to private and community assets and to reduce the impacts of inappropriate fire regimes on... environmental assets."

The agreement establishes a common goal for the organisations to ensure that the management and suppression of bushfires in South Australia is safe, efficient and cost effective on both public and private land.

The agreement is underpinned by the National Bushfire Mitigation and Management Principles (Council of Australian Governments, 2004), and framed within an emergency management context. The partner agencies share a common commitment to "conducting cooperative fire management and suppression activities, including the sharing of knowledge, resources and relevant systems".[4]

2.3.2 Fire Management Zoning

South Australia has in place a fire management zoning framework based upon the Council of Australian Governments agreed national principles. The zoning consists of three levels:

- Asset Protection Zones (APZ)
- Bushfire Buffer Zones (BBZ)
- Conservation Land Management Zones (CLMZ)

This zoning approach provides an effective mechanism for the strategic identification and management of areas of the landscape for bushfire protection. Asset protection and Bushfire Buffer zones are determined on the basis of overall fuel hazard, while Conservation-Land Management zones are based upon conservation or land management objectives. It supports a focus on life and property protection, through APZ and BBZ placement in the landscape, while balancing this with biodiversity outcomes maintained and enhanced within CLMZs. In practice, this means that the most highly modified areas of vegetation are within APZs, which are also the most confined areas. BBZs represent a 'medium' level of vegetation modification, and CLMZs are the least modified, as their zone objectives are focused upon land management and biodiversity outcomes.

2.3.3 Native Vegetation Management

In 2009 the South Australian government introduced new rules regarding the management of native vegetation for asset protection and hazard reduction purposes. The new rules, set out in "Reduce the Impact of Bushfire" Guide, provide improved capacity for private landholders to manage native vegetation around their properties for the purpose of life and asset protection. To assist in managing this process, a number of clearance exemptions are in place, together with a simplified approvals process delegated to CFS Regional Officers for certain hazard reduction measures on private land. The new rules operate within the context of the fire management zoning framework outlined above.

2.3.4 Ecological Fire Management Guidelines

The Department of Environment and Natural Resources has developed Ecological Fire Management Guidelines (EFMGs), identifying appropriate fire regimes for different vegetation formations based on best available information, include critical spatial criteria requiring landscape level application. The EFMGs are used to guide fire management decisions in Conservation Land Management Zones (CLMZs)

[4] Government of South Australia, 2009, "Heads of Agencies Agreement for Fire Management on Public Land in South Australia".

within fire management plans. A summary of the EFMGs is appended (refer Appendix 2).

2.4 Incident Management

Incident management is the orchestrated response to a bushfire (or other) incident. SA CFS has adopted a number of policies that govern the delivery of operations, as outlined below.

2.4.1 Australasian Inter-Service Incident Management System (AIIMS)

The SA CFS has adopted the Australasian Inter-service Incident management System (AIIMS) as the most appropriate method to manage incidents. It is mandatory that there is a systematic approach to manage an emergency incident. Using the AIIMS model there is:

- One incident controller
- Management by objective
- Span of Control
- Delegation of functions.

The practice of AIIMS during an incident is supported by detailed doctrine.

2.4.2 Mission Command

Within the AIIMS framework, the approach adopted to manage an incident is based upon the principles of mission command. Mission command is the conduct of operations through decentralised execution based on a central mission statement for effective management of an incident. Successful mission command results from subordinate commanders and leaders at all levels exercising disciplined initiative within the spirit of the commander's intent to accomplish their mission.

Mission Command recognises the importance of individual judgements and tactical effort when dealing with an uncertain and complex incidents. Successful mission command requires:

1. Commander's intent
2. Trust and confidence in subordinates
3. Subordinate's initiative (Freedom of action) - refer Core Individual Behaviours
4. Mission orders
5. Resource allocation

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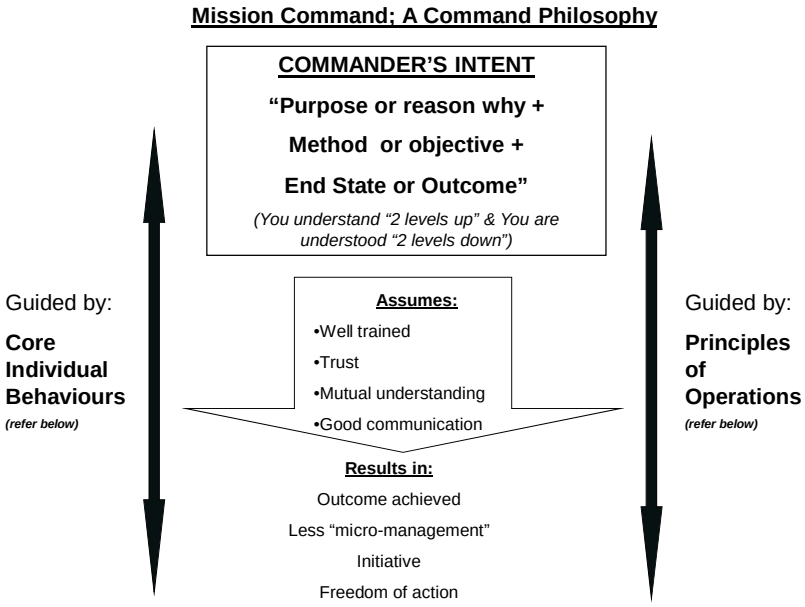

Core Individual Behaviours:

- Act with "Safety First" in everything we do
- Be committed to service to our community
- Be competent at our job
- Act fairly, honestly and with integrity
- Be a member of a team
- Encourage leadership and initiative
- Demonstrate determination in what we do
- Be accountable for our actions
- Communicate important information
- Continuously seek self-improvement.

Principles of Operations:

- Priority to the protection of life
- Maintenance of the intent
- Cooperation with other agencies
- Information and communication
- Situational awareness
- Foresight
- Mobility
- Actions scaled to risk and result
- Flexibility of approach
- Timeliness
- Maintenance of morale
- Concentration of effort

- Economy of effort.

2.4.3 Incident Management Manual

SA CFS is currently undertaking a major review of the agency's incident management doctrine. Until such time as this review is completed all existing doctrine remains in place.

The current review process provides an ideal opportunity to support the effective integration of community safety policy elements within the incident management framework, including (but not limited to):

- public warnings during incidents
- provision of information to the community during incidents
- evacuation planning for vulnerable and/or at-risk communities
- tactical firefighting for vulnerable and/or at-risk communities
- tactical firefighting for vulnerable and/or at-risk infrastructure
- recovery management.

2.5 Summary

The amended *Fire and Emergency Services Act 2005* (SA) requires a transition of existing policy and practices to a risk based, landscape scale and collaborative framework for bushfire management in South Australia.

The development of a statewide risk assessment will occur through a series of iterations, supported initially by quantitative data collation and the development of interim Bushfire Management Area Plans. The treatment of risk is divided into a hierarchy of approaches, captured within three key policy elements, namely:

- community safety;
- landscape scale bushfire management; and,
- incident management.

The principles outlined within each of these policy elements encompass both existing and developing State policy approaches, and establish the broad framework for the management of bushfire risk in South Australia.

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3. POLICY IMPLEMENTATION

3.1 Overview

This section of the interim State Bushfire Management Plan incorporates the requirements of the Hazard Leader Plan, as required under the State Emergency Management Plan (SEMP). Activities to manage bushfire risk outlined in this section of the plan are presented within the emergency management framework of Prevention, Preparedness, Response and Recovery.

The following text incorporates the contents of the former State Bushfire Hazard Leader Plan (December 2009).

The SA CFS is the hazard leader for rural fire in South Australia. As outlined in section 1.1.3 above, a 'hazard leader' is the agency which, because of its legislative responsibility, specialised knowledge, expertise and resources, undertakes a leadership role for planning emergency management activities. These pertain to the prevention of, preparedness for, response to and recovery from a specific hazard. The role is to lead a multi-agency approach to planning for the identified hazard. Each hazard leader is required to provide an oversight role to the total planning of all agencies relative to their particular hazard.

For bushfire, the SA Country Fire Service (SA CFS) is the hazard leader. It is necessary to acknowledge that all stakeholders including the community have a shared responsibility when it comes to bushfire. The main aim is to have the community 'Bushfire Ready' so they can make informed decisions regarding their safety, and prepare appropriately.

The purpose of the Bushfire Hazard Plan is to outline the responsibilities, authorities and the mechanisms to prevent, or if they occur, manage, bushfires and their consequences within South Australia. The 'Plan' outlines initiatives undertaken and references a number of supporting pre-existing plans, documents and initiatives that complement the Plan.

The approach to managing the bushfire hazard relies on strong cooperative, coordinated and consultative relationships among State government agencies and local government. State and local government will also maintain effective relationships with the community to adopt appropriate preventive measures to mitigate against bushfires.

In the full iteration of the SBMP to be prepared prior to the 2011/2012 Fire Danger Season, the following matters will be comprehensively integrated within this section on bushfire management policy implementation:

- the full suite of bushfire risk treatments to be applied in South Australia, encompassed within a 'State Risk Treatment Register'
- matters that may be addressed by codes of practice

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- state level targets for key risk treatments, including hazard reduction and community education
- arrangements for inter-agency cooperation and for coordination of resources between agencies
- arrangements for intra-fire agency coordination
- processes for engagement and support of local government
- processes for engagement and support of private landholders.

In this current iteration, the contents of the former State Bushfire Hazard Leader Plan have been substantially retained and updated to reflect recent policy and practice changes, to meet the requirements of the interim SBMP.

3.2 Prevention

The following definition of 'prevention' applies to this plan:[5]

> *Activities that eliminate or reduce the probability of occurrence of a specific hazard, prevention also reduces the degree of damage likely to be incurred.*

The *Fire and Emergency Services Act* and *Regulations* establish provisions for the regulation of ignition sources through the declaration of a fire danger season, total fire bans, conditional use of prescribed activities and appliances and a permit system for the lighting and maintaining of fires during the fire danger season. These legislative controls are complemented by the use of codes of practice and programmes to inform the public and monitor activities.

Outlined in the following information are the associated activities, programmes, plans, initiatives and forums utilised for prevention within South Australia in the context of the Bushfire Hazard Plan.

3.2.1 Bushfire Management

The South Australian Government amended the *Fire and Emergency Services Act 2005* (SA) on 1 November 2009. On 11th June 2010 the State Bushfire Coordination Committee was established. The SBCC is responsible for the establishment of Bushfire Management Areas and associated Bushfire Management Committees in South Australia. Nine Bushfire Management Areas have been proclaimed, and nine Bushfire Management Committees are in the process of being established. Refer to Section 1 of this document for further details.

Each of the Bushfire Management Committees will be responsible for the preparation of a Bushfire Management Area Plan. The new planning process will provide a risk management focus to bushfire management in South Australia as opposed to the previous plans which had a hazard management focus. Interim

[5] South Australian Emergency Management Plan definitions. Note that these are 'all hazards' definitions and in some cases the Australasian Fire Authorities Council (AFAC) definitions may be more appropriate for a bushfire management context.

planning arrangements are being put in place until these BMAPs are developed. Refer to Section 1 of this document for further details.

3.2.2 Bushfire Management Area Planning

Bushfire Management Area Planning will be undertaken by Bushfire Management Committees to facilitate the strategic, landscape scale implementation of mitigation (prevention and preparedness) strategies targeted on the basis of bushfire risk.

Each Bushfire Management Area Plan (BMAP) will include appropriate risk treatment strategies reflective of South Australian bushfire management policy across the following strategy areas:

- Community education
- Hazard reduction
- Property planning
- Preparedness
- Ignition management.

3.2.3 Fire Danger Season

The CFS Chief Officer may fix a fire danger season in relation to the whole, or any part of the state for a period as required. This provides for the restriction and use of fire and other activities.

This is done under Section 78 of the *Fire and Emergency Services Act*.
An authorised officer (generally local council officers or certain CFS officers) may issue a permit authorising a person to light or maintain a fire during the fire danger season.

3.2.4 Community Safety Information

CFS undertakes an annual community safety campaign to raise awareness of individual responsibilities, bushfire safety measures and the need for the development of a Bushfire Survival Plan. The awareness campaign is linked to CFS Community Education programmes, which have been developed to influence behavioural change in the community.

It is clear that the community needs to understand and accept that bushfires are an inevitable part of the Australian environment. South Australia is the driest state in the driest inhabited continent and bushfires are a natural occurrence. It is critical that the community receive key bushfire messages, understand the messages and act on that information. If these messages are not being absorbed and behaviours not changed, communities, lives and property will be placed at great risk.

With the target audience covering many groups of people, genders, educational backgrounds, geographical locations, there is a need to use multiple channels of communication. The success of this information can only be achieved if people change their behaviour to better prepare and manage bushfires.

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Running parallel with this communication requirement is the need to build strong and positive relationships with media representatives so that they fully understand the rationale behind key safety messages, undertake accurate reporting and use correct terminology when covering bushfire incidents.

Bushfire awareness workshops are provided to the media, covering fire reporting techniques and how bushfires are managed. South Australian media are being urged to wear appropriate safety equipment to maximise their safety while operating on the fireground. A 24-hour media liaison officer system established within the South Australian Fire and Emergency Services Commission (SAFECOM) enables the media to obtain timely advice on current fire behaviour or other incidents.

Each fire danger season, key messages are delivered to the South Australian community about bushfire prevention and preparedness as well as bushfire warnings. The use of a variety of mass media formats to reach the community is one key component of the Fire Danger Season campaign which aims to increase bushfire awareness and safety and have South Australians bushfire ready.

The CFS considers it essential to support community education programmes with a targeted community awareness and media campaign. This strategic approach provides CFS with the potential to reach all individuals and provide reinforcement of bushfire prevention and safety messages.

CFS has a number of publications and educational resources which focus on the ‘Prepare. Act. Survive.’ message which has been agreed nationally. These resources are available through CFS headquarters, CFS regional offices, local council offices and other emergency services.

The campaign includes funding for regional television promotions and the development of community service announcements for print, radio and television. The ‘Prepare. Act. Survive.’ campaign provides general advice on bushfire, preparedness and safety and is supported by more detailed information available through the CFS Bushfire Information Hotline and the CFS website.

3.2.5 Community Education

The CFS Community Fire Safe programme was initiated in 1997 and is focused on the establishment of sustainable community groups who are faced with a common bushfire threat. The program provides information and practical examples on “how to prepare and protect your property from the impact of bushfire”. The programme has been successful because it empowers communities to develop their own bushfire safety strategies by assisting them to find answers to their specific needs. CFS provides a number of facilitators to support these groups.

The program is primarily focused on the high bushfire risk areas of the Mt Lofty Ranges, Lower South East, Lower Eyre Peninsula and Kangaroo Island, however programmes can be run at any location throughout the State. Communities interested in participating in the Community Fire Safe program can contact their local CFS regional office.

Additional funding has recently been provided to CFS to employ additional community education officers to provide coverage for the entire State and to meet the escalating demand for community education services provided by CFS.

3.2.6 Development Control In Bushfire Prone Areas

The Bushfire Management Development Plan Amendment under *the Development Act 1993* establishes planning rules and introduces construction requirements for new residential and tourist accommodation premises in declared bushfire prone areas in South Australia. These areas include the Lower Eyre Peninsula, Mid-North, Yorke Peninsula, Mt Lofty Ranges, Kangaroo Island and Lower South East. This process is a partnership between CFS and the Department of Planning and Local Government (DPLG). Within each bushfire prone area, a zoning process has been applied to identify areas of General, Medium and High bushfire risk. This zoning framework identifies whether a proposed development requires referral to the SA CFS for review and recommendation regarding application of bushfire protection standards.

As a referral agency under the *Development Act 1993*, CFS provides advice to planning authorities on the siting of buildings, access for fire vehicles, water supplies and vegetation management. CFS recommendations may be adopted by the planning authority as conditions of planning approval and, when combined with the construction requirements under the Building Code of Australia, should enable that dwelling to be used as a place of refuge during bushfire.

3.2.7 Ignition Source Regulation

The *Fire and Emergency Services Act and Regulations* establishes the provisions for the regulation of ignition sources through the declaration of a fire danger season, total fire bans, conditional use of prescribed activities and appliances and a permit system for the lighting and maintaining of fires during the fire danger season. These legislative controls are supplemented by the use of codes of practice and programmes to inform the public and monitor activities.

3.2.8 Codes of Practice

There are a number of codes and practice and guidelines in place to support the management of bushfire risk on agricultural, forestry and public lands. Recent amendments to the *Native Vegetation Regulations* also enhance the capacity of private landholders to manage bushfire risk on private land.

3.2.8.1 Grain Harvesting Code of Practice

The Grain Harvesting Code of Practice was developed jointly by the SA CFS and the South Australian Farmer's Federation and applies to harvesting of *any* flammable crop, all grain harvesting and grain handling operations that occur “in the paddock”, including operation of grain harvesters, operation of vehicles involved in transporting grain, grain dryers and grain augers.

The Code requires the suspension of grain harvesting operations when the local actual Grassland Fire Danger Index (GFDI) reaches 35. This local, actual GFDI can be determined by a local group of farmers, or be measured and calculated by a harvesting operator. The Code also requires effective maintenance of harvesting machinery and phone and radio communication capacity.

3.2.8.2 Farming Guidelines for the Reduction of Bushfire Risk

The *Farming Guidelines for the Reduction of Bushfire Risk* have been developed to provide farmers with a clear and consistent approach to the management of farms to reduce the risk of bushfire.

The Guidelines promote a planned landscape approach to bushfire protection and fuel reduction works, including stubble height reduction. The Guidelines should not be seen as removing the need for farmers to responsibly control fuel levels on their properties, or to be adequately prepared for, and know what to do in the event of a bushfire.

3.2.8.3 Forest Owners Conference Guidelines

These guidelines were developed by the forest owners and industry stakeholders within the States South East, to give a consistent industry accepted standard to the management of forest plantations to minimise fire damage to plantations and minimise any risk to the community. These standards have been developed by the industry and are applied to all plantations that are owned or managed by forest owners who are members of the Forest Owners Conference. These standards have also been endorsed by district and regional Bushfire Prevention Committees within the South East as being appropriate risk mitigation strategies to assist in minimising the threat of bushfire to the community and fire authorities.

Some councils within the South East have adopted these standards as part of their planning approval processes on smaller private plantations to minimise bushfire risk to the community.

3.2.8.4 Government Agencies Fire Liaison Committee Fire Breaks and Fire Access Track Standards

State government agencies undertaking bushfire prevention measures on land they manage have established firebreaks and tracks used for fire access, often with varying objectives and specifications. The GAFLC Fire Breaks and Fire Access Track guidelines document seeks to present guidelines to enable government agencies to achieve a consistent approach in the establishment and maintenance of firebreaks and tracks used for fire access.

The guidelines have been developed to provide a consistent and practical approach to the many and varied treatments necessary to manage vegetation, associated fuel accumulation levels and to provide, as far as is practicable, safe access for bushfire suppression operations. In the development of the guidelines it was considered of paramount importance that they incorporate sound land management and

environmental principles and that establishment and recurrent maintenance be cost effective. The document also aims to provide a guide for private landholders enabling them to achieve a practical and consistent approach to this aspect of bushfire mitigation.

3.2.8.5 Native Vegetation Regulations - Reducing the Impact of Bushfire

In September 2009 the South Australian government introduced amendments to the Native Vegetation Regulations to assist private landholders to manage native vegetation on their property for the purpose of life and asset protection. The changes included a range of exemptions for hazard reduction activities, together with delegation of approvals for certain hazard reduction activities to the SA CFS. The new rules are supported by a *Guide to Reducing the Impact of Bushfire*.

3.2.8.6 Overall Fuel Hazard Guide for South Australia[6]

The Overall Fuel Hazard Guide for South Australia (March 2008) provides a systematic guide for the assessment of fuel hazards to inform bushfire management.

3.2.9 Firewatch

Firewatch is a joint initiative established by CFS, SA Police, SAMFS, DENR, ForestrySA, and the South Australian Farmers Federation with the following purpose and aim:

Purpose:
The purpose of this committee is to reduce loss to the community caused by fire within the areas of responsibility of member agencies through community education and the detection and apprehension of offenders.

Aim:
Through an effective and concerted multi agency education, enforcement and apprehension campaign, reduce the cost of fire suppression and losses from damage to life, property and the environment in South Australia by minimising the number of deliberately lit fires.

3.2.9.1 Operation Nomad

Linked to Firewatch, Operation Nomad is the SA Police fire danger season operation focused on supporting policing activities to reduce the occurrence of fires. This operation includes the provision of fire patrols on days of significant fire danger and above, tracking of intelligence relating to fire causes and also targets known persons of interest.

[6] Department for Environment and Heritage, (March 2008), *Overall Fuel Hazard Guide for South Australia*.

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3.2.10 Assets of Significance

Owners of assets of significance across the State have a responsibility to ensure they have identified any bushfire risk associated with the infrastructure and undertake mitigation activities to ensure it is not impacted by bushfire. These activities include:

- having a prevention plan established and implementing an associated works program;
- contingencies should an impact occur;
- business continuity plans; and,
- maintaining an emergency response plan complete with key contacts.

3.2.11 Hazard Reduction on Private and Public Land

Section 105 of the *Fire and Emergency Services Act 2005* (SA) requires public and private land managers to take reasonable steps to:

- prevent or inhibit the outbreak of fire on the land; and
- prevent or inhibit the spread of fire through the land; and,
- protect property on the land from fire; and,
- minimise the threat to human life from a fire on the land.

Substantial penalties apply for a failure to undertake reasonable activities to fulfil these requirements.

Where owners of private land fail to meet their legislative responsibility for bushfire protection, authorised officers within local government (generally Fire Prevention Officers) and the SA CFS Chief Officer have the power under s.105F to issue hazard reduction notices to require specific work to be undertaken.

The process allows Fire Prevention Officers within local government to specify the types of hazard reduction work to be undertaken and provides for an appeal process if a landholder believes that they have been unjustly served with a notice.

The South Australian government has established four fire management co-operatives, involving public land management agencies (DENR, SA Water and ForestrySA) and the rural fire hazard leader (SA CFS) to support the coordination of resources to improve effective management of bushfire risk on public land. The existing co-operatives operate across the southern Flinders Ranges, southern Eyre Peninsula, in the Mount Lofty Ranges and the South East.

Amendments to the *Fire and Emergency Services Act 2005* (SA) also provide powers to SA CFS Chief Officer to pursue compliance with hazard reduction requirements by public agencies with the relevant Minister.

3.3 Preparedness

The following definition of preparedness applies to this plan:

> *Activities that focus on essential emergency response capabilities through the development of plans, procedures, organisation and management of resources, training and public education.*

3.3.1 Incident Planning

In order to ensure appropriate support is provided to the community in the event of an emergency occurring, it is necessary for incident planning to be undertaken. It is the responsibility of all agencies to identify risks associated with bushfire in their area of responsibility and establish plans to mitigate those risks.

Examples of the preparedness arrangements for CFS are listed below as a guide:

CFS Operations Management Guidelines - These guidelines describe the principles, operational systems of work and operational management structures for the CFS and the CFS State Coordination Centre (CFS SCC). The intention is to provide a documented record of the operational policies, systems of work and operational management practices used by CFS. In places, these guidelines complement and reinforce doctrine that is documented elsewhere such as in the Chief Officers Standing Orders / Standards Operating Procedures (COSO / SOPs), training notes and fire ground practices.

CFS Chief Officer Standing Orders / Standard Operating Procedures - The underlying principle for these is 'Safety First'. A COSO is a detailed order that pertains specifically to firefighter safety and is a method or instruction that must be followed in all circumstances. The COSO sets out specific responsibilities, both individual and organisational for all volunteers and staff to follow without exception. A SOP is a detailed set of operating guidelines, methods or instructions to be followed in specific circumstances. SOPs set out who-does-what, in what manner and in what sequence. Procedures set out the 'steps to follow' to achieve a desired outcome.

CFS State Operations Management Plan (SOMP) - The SOMP has been developed to provide the how and what CFS does at a State level. The SOMP provides a framework for the coordination of regional and state resources by the CFS Deputy Chief Officer/Assistant Chief Officer and CFS State Coordinator in conjunction with regional staff.

CFS Regional Operations Management Plan (ROMP) - Each CFS region has a ROMP. This Plan brings together the how and what regions do for coordination of incidents within the region and the operational support provided to CFS groups while they are dealing with incidents. The Plan provide a standard framework for all regions so interoperability across regions is seamless and support from an adjoining region is achieved and include intrastate resource deployment processes.

Group Operations Management Plan(s) (GOMPs) –These Plans bring together the how and what groups do from an operational perspective for dealing with incidents. These plans include the information required on how to respond to incidents, what resources are available, communications, where the risks are, strike team information, logistics support etc. Each group is required to have a GOMP and they should be developed in partnership with adjoining CFS groups.

Air Operations Plan - The CFS has established a plan for the use of aircraft for both fire bombing and intelligence / coordination across the State. This plan is based on risk management principles where primary response zones and a secondary response zones have been identified. The CFS utilises a mix of fixed and rotary wing aircraft for supporting incident control.

Specific Risk Planning - As the agency responsible for attending incidents to protect life, property and environmental assets, CFS has a responsibility to make sure that CFS brigades and groups are well prepared, that they know their area and the risks in that area. Developing a risk plan means that the important steps of identifying risks, analysing and then planning for risks have been undertaken at the appropriate level. A 'Risk Pan' is a written plan for assets (risks), which details layout, construction, potential hazards, on-site fire fighting equipment and resources, and an Action Plan.

3.3.2 Standards of Fire and Emergency Cover

The Standards of Fire and Emergency Cover (SFEC) system provides information for framework/resource planning at State level for the CFS. At this broad level objective techniques have been used to assess a community's level of fire hazard and special service problems (road crash rescue and hazmat incidents) and the relative need for resources and other treatments to mitigate the hazard and associated problems.

The SFEC is primarily a tool to aid policy evaluation and planning. The implications of logical policy sets can be analysed and costed to aid planning and management. Relative measures have been used so that priorities can always be set against available resources (e.g. budget).

The CFS is responding to many changes, shifts in population, rural decline, new areas of growth, changing technology, legislative demands such as OHS&W, economic imperatives and the expectations of communities are all elements to be considered in providing the service.

Volunteers, particularly in high fire and emergency threat areas, are reaching new levels of sophistication and professionalism that call for recognition and enhancement of the role they undertake.

The standards describe the services the CFS offers in the CFS protected area; what the community must provide to support this service; and the standards to which brigades and groups should deliver it. Other agencies need to have resources available to deal with the hazards identified.

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3.3.3 Total Fire Bans

The CFS Chief Officer may at any time of the year impose a ban (a *total fire ban*) on the lighting or maintaining of fires in the open air for any purpose on a specified day or days, or during any specified part or parts of a day or days throughout the whole State, or any specified part of the State under *section 80 of the Fire and Emergency Services Act*. Breaches of the Act are dealt with by SA Police and, where expiation notices can be used, Council Expiation Officers have the power to issue these.

In partnership with the Bureau of Meteorology (BoM), CFS has established procedures for imposing these bans, which also set out the dissemination to the media and public.

3.3.4 Bureau of Meteorology (BoM)

The BoM provides forecast information throughout the fire danger season which is utilised in the preparedness for bushfires. The BoM has established a registered users website which emergency services access for information. The BoM also provides support when bushfire events occur with forecasts and predictions.
In support of managing incidents, four (4) Portable Automatic Weather Stations (PAWS) are available through CFS or DENR. These units are self contained and can be despatched to any area of the State where they communicate into the BoM via satellite phone links.

3.3.5 Evacuation Principles - Powers to Direct an Evacuation

3.3.5.1 Evacuation Principles

The CFS supports the State Emergency Management Committee policy on evacuation. In support of this policy, the emergency services have developed a pocket guide, which summarises advice that each household must make its own decision to prepare, stay and defend their property or go early.

This guide also provides information on Bushfire Information Messages and Bushfire Warning Messages. Fire fighting agencies will provide support and assistance during bushfires when and where possible, but their effectiveness will be compromised if people or properties are not adequately prepared for bushfire.

In most circumstances fire agencies will be able to provide sufficient fire fighting resources to defend threatened properties when bushfire occurs. However, there will be circumstances when fire agencies are unable to provide fire fighting resources in sufficient time and strength to prevent loss of life and damage to property. Therefore, people planning to defend their properties must be prepared to be self sufficient.

In a bushfire, fire fighting resources are likely to be allocated where they will be most effective, not necessarily where losses are most likely.

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3.3.5.2 Powers to Direct an Evacuation

Powers to direct an evacuation in South Australia are held by the Country Fire Service and the Metropolitan Fire Service under the South Australian Fire and Emergency Services Act 2005, and the South Australia Police and other emergency services under the Emergency Management Act 2004.

The term "*Directed Evacuation*" is defined in the South Australian Emergency Management Plan as follows:

- Directed Evacuation - is the controlled and managed movement of people from a threatened area to a place of safety in accordance with the provisions of the *Emergency Management Act 2004* and other relevant legislation.
- Self-Evacuation - is the self-initiated movement of people from a threatened area to a place of safety.

The key point is that a 'Directed Evacuation' is a controlled and managed movement of people to a place of safety.

In all circumstances, any decision to direct an evacuation would only be made by the agency responsible for the management of the incident (the Control Agency) in sufficient time and where adequate resources are available to control and manage the evacuation safely.

Therefore, the considered position of the Police and Emergency Services in South Australia is that in most circumstances, unless there is significant time and resources available to undertake a properly controlled and managed evacuation, a directed evacuation would not be a preferred option during a fast moving bushfire.

The position of the State's Emergency Management Agencies is that:

- As far as is possible, members of the community should decide for themselves whether to stay or go when threatened by an emergency;
- The decision to evacuate or recommend evacuation will only be made by the authorities when it is evident that loss of life or injury is imminent and almost certain;
- The aim is to evacuate or recommend evacuation as early as practicable. Late evacuations may compound the risk by potentially exposing communities and individuals to greater levels of risk;
- The aim is also to allow the return of evacuees to their properties as early as is practical.

3.3.6 Last Minute Evacuations are Dangerous

Evacuation at the last minute ahead of a bushfire is dangerous. Smoke, noise, heat, flames, fire fighting vehicles and panic all make fleeing in a vehicle or on foot dangerous. The risk of being overrun by fire is very real and has resulted in numerous fatalities. People caught in the open are likely to face severe and often

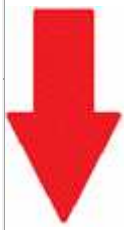
fatal levels of radiant heat. All things being equal, people are safer in houses than in cars in a bushfire, and safer in cars than in the open. It is much safer for people to remain in buildings than flee in the face of an approaching fire. Education of the community must focus on encouraging people to prepare and stay in their homes as a fire approaches, rather than to flee at the last minute.

3.3.7 Bushfire Safer Places

If you live, work or travel in an area where bushfires can occur, and your Bushfire Survival Plan is to leave early, on or before a bad fire day, you need to be aware of where you can relocate to.

CFS has developed a hierarchy of places that can offer relative safety from bushfire. They are broken into three categories, and are called Bushfire Safer Settlements**,** Bushfire Safer Precincts and Last Resort Refuges**.** It is important that you know what each of these are, where they are, and what risk you may be exposed to if you use one of these options during a bushfire.

Hierarchy of Bushfire Safer Places in South Australia

SAFEST  LEAST SAFE	**BUSHFIRE SAFER SETTLEMENT**	Inner Adelaide Metropolitan area	Suitable for use during forecast bad fire weather or during bushfire.
	BUSHFIRE SAFER PRECINCT	Outer suburbs and rural settlements.	Suitable for use during forecast bad fire weather or during bushfire. May be subject to spark and ember attack and smoke.
	LAST RESORT REFUGE	Ovals, buildings in rural areas.	Not suitable for extended use and may provide only limited protection during bushfire.

3.3.8 Emergency Services Safety

Involvement with bushfires can place personnel at risk, all emergency services and support agencies involved with bushfires should ensure they provide their personnel with appropriate personal protection and information to minimise the risk of injury. As an example, SA Police have provided each patrol vehicle working in likely bushfire areas with a bag, with appropriate Personal Protective Equipment.

3.3.9 Exercises

As part of the preparation for the fire danger season, ‘Exercise Team Spirit’ is conducted to provide the opportunity for agencies to practice and test procedures/arrangements. This exercise is targeted at all functional services outlined in the State emergency management arrangements. All agencies are encouraged to conduct exercises at all levels and with key stakeholder agencies.

3.3.10 Support Resources

Support resources for incident management are sourced from local government (via local arrangements or a Memorandum of Understanding), private contractors (via local arrangements) and other agencies (including DENR, ForestrySA). As part of the planning process CFS brigades and groups identify what resources are available and how they can access these, and include this information in their operational management plans.

Cross border liaison occurs with interstate agencies, where procedures and planning occurs for incidents in border areas.

3.4 Response

The following definition of response applies to this plan:

> *Activities that combat the adverse effects of the event, provide emergency assistance for casualties, help reduce further injury or damage and facilitate effective recovery operations for and in the local community.*

3.4.1 Incident Response

In order for response agencies to respond to incidents, they must first be reported, the States emergency services are committed to promoting the use of '000' as the most efficient method of reporting a fire which will lead to the appropriate response.

Control agencies are responsible for ensuring response plans / schedules are established, these must be risk based and need to include mutual aid in support of the nearest, fastest and most appropriate resource being responded.
In most circumstances fire agencies will be able to provide sufficient fire fighting resources to defend threatened properties when a bushfire occurs. However, there will be circumstances, such as on days of elevated fire danger index from Very High upwards, when fire agencies are unable to provide fire fighting resources and strength in sufficient time to prevent a loss of life and damage to property.

3.4.2 CFS State Coordination Centre Operations Manual

The CFS State Coordination Centre Operations Manual has been developed to describe the establishment, activation, operation and maintenance of the CFS State Coordination Centre during planned major events and significant operations, and unplanned emergencies including counter-terrorism situations.

As part of the response coordination, regular briefings occur at the State Emergency Centre (SEC) when activated, which provides information on weather (both current and predicted), fire activity levels and issues of state strategic significance.

3.4.3 Air Operations

The CFS has established a plan for the use of aircraft for both fire bombing and intelligence/coordination across the State. This plan is based on risk management

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principles where primary response zones and a secondary response zone have been identified. The CFS utilises a mix of fixed and rotary wing aircraft for supporting incident control. South Australia also utilises the arrangements established through the National Aerial Firefighting Centre, which provides access to aircraft across the nation. These arrangements may see additional aircraft being deployed into South Australia or South Australian resources being deployed interstate.

This Plan specifically details the response of different aircraft for the particular zones across the State.

3.4.4 Interstate Deployment Plan

Reciprocal arrangements are in place between the States and Territories to support interstate deployment of firefighting resources. Such deployments may be into South Australia or from South Australia to other States.

Appropriate protocols and procedures have been developed to ensure effective mobilisation and deployment of human and physical resources upon request. A 'Support from Interstate Bushfire Management Agencies Plan' has been developed, which sets out the procedures for effective mobilisation and deployment of interstate human and physical resources into South Australia.

In the event that resources are required from South Australia, the requesting State Fire Management Agency will forward a formal request in the form of a 'Letter of Intent'. This letter will set out the details of the type of support being requested, the general area in which the support will be used and the duration that the support is expected to be required.

3.4.5 Public Warnings and Information

Public information regarding current threats from bushfires is provided by the CFS through a variety of avenues. These include the Bushfire Advice, Watch & Act and Emergency Messages; media releases; CFS website; Emergency Alert; Alert SA; and the CFS Bushfire Information Hotline. In addition to this, the State Controller Media (via SA Police) is available for support with media and public information as required.

For incidents that have the potential to impact on the community beyond the first day, public meetings are planned to provide information on what the current situation is, what the incident prediction is, what the emergency services are doing and what the community should be doing.

3.4.5.1 Bushfire Advice, Watch & Act and Emergency Messages

The intent of the CFS Bushfire Advice, Watch & Act and Emergency Message is to ensure that the CFS is able to provide timely and accurate information and warning to the public, such that the public are able to make informed decisions in response to bushfires that may threaten their safety. The key objective is to be able to get information and warning to the public as soon as possible via multiple means of communication.

To be able to achieve this, the information distributed via Bushfire Advice, Watch and Act, or a Emergency Message will answer the following questions:

1. Where is the fire now?
2. Where is the fire expected to move next?
3. What are the risks faced by people in the area? Is this true?
4. What are the public advised to do about those risks?
5. What is the CFS doing about the situation?

These messages are disseminated through media outlets across the state. CFS has established Memorandums of Understanding with the ABC and 5AA where they have agreed to broadcast these messages in a timely manner to support public safety. The Emergency Alert system may also be utilised to disseminate these messages.

3.4.5.2 Emergency Alert

Following the aftermath of the 2009 Victorian "Black Saturday" bushfires the community has developed a heightened awareness of bushfire and emergency incidents and the need for timely warnings and advice from emergency services.

On 30 April 2009, the Council of Australian Governments (COAG) agreed to take immediate steps to enhance Australia's emergency management arrangements through the development of Emergency Alert, a telephone based emergency warning message system.

Emergency Alert has been designed to deliver warning information where an emergency poses imminent danger to the community.

On 21 December 2009, Emergency Services Minister, Michael Wright, launched the new telephone-based emergency warning system in South Australia.

The system was used on nine occasions during the 2009/10 bushfire season.

The Emergency Alert system can send up to 1000 voice messages to landlines within a minute and up to 500 text messages a second to mobiles with a designated emergency area.

The system captures all phones within the designated emergency area by identifying mobiles with a billing address within that area and landlines that have a service location within that area. A text message is then sent to mobiles and a voice recorded message to landlines.

It is the responsibility of the emergency control agency (e.g. CFS) to decide whether an Emergency Alert is sent or not. An Emergency Alert may not always be sent depending on the emergency situation.

It is critical to recognise that Emergency Alert is an extremely valuable system to warn people quickly in an emergency, but due to the unpredictable nature of emergencies, it cannot be relied on as the only source of warning or information.

3.4.5.3 Alert SA

In an emergency the ability to reach as many people as possible, as quickly as possible with the right information, relies on a multi-channel communication process. The Emergency Alert telephone warning system has become just one part of the emerging SA Government initiative known as Alert SA which delivers a raft of early warning and emergency warning communication tools to help better inform the public of an emergency.

The collaborative approach of Alert SA will ensure that South Australians are not only given greater access to more emergency warning mechanisms, but also become better educated in emergency management; thereby strengthening our communities resilience.

The South Australian Government has committed $12.4 million over the next five years to implement Alert SA.

3.4.6 Incident Management

For all bushfire events, incident management will be achieved utilising the Australasian Inter-Service Incident Management System (AIIMS). This system provides a standard platform for managing incidents and allows for seamless interoperability across agencies.

3.4.7 Level 3 Incident Management Teams

The State operates four pre-formed Level Incident Management Teams from a number of agencies to operate in conjunction with a Level 3 Incident Controller appointed to a Level 3 incident, within and outside of South Australia as required.

3.4.8 Fire Cause Investigation

In an effort to reduce the incidence of fire, cooperative fire investigation procedures / protocols are in place between CFS, SA Police, SAMFS, DENR and ForestrySA. These provide a combined approach to fire investigation and allow trends to be tracked and education or specific programmes established to deal with fire starts.

3.4.9 Farm Fire Units

The ability, (*indeed the responsibility*) for individuals to fight fire on their own land has always been a part of South Australia's fire suppression arrangements. It has always been the custom and practice in South Australia that members of the community attend fires with their own equipment to protect their property and that of others. For that matter the CFS originally developed from such beginnings.

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CFS and the South Australian Farmer Federation have developed some basic principles to help fight fires safely and effectively whether the CFS is present at the fire or not. These guidelines/ principles are available from CFS or the South Australian Farmer's Federation A key principle of this community response is that it be done with safety as the number one priority.

3.5 Recovery

The following definition of recovery applies to this Plan:

> *Measures or activities undertaken during and/or after an emergency to assist the re-establishment of the normal pattern of life of individuals, families and communities affected by the emergency. Also actions taken to minimise the recurrence of the hazard and/or lessen its effects on the community. For emergency services, recovery also includes returning to a level of preparedness to be able to respond to subsequent events.*

3.5.1 Business Continuity Planning

There is a requirement for all agencies involved with bushfires to have a Business Continuity Plan to ensure the uninterrupted availability of key business processes within the State.

As a service delivery organisation, CFS' ultimate strategic objective in terms of business continuity planning is the assurance to the community that CFS can continue to deliver its primary services, or, if a protracted event should occur, recovery of those services as quickly as possible.

3.5.2 Recovery Activities

As part of the recovery process, it may be necessary to undertake post impact assessments. A joint approach has been developed across the emergency services for these assessments to capture what damage has occurred including provision of advice on safety issues.

As part of this process it may be necessary to allow for insurers to have access to impacted areas for assessment purposes, the control agency will need to authorise this before it occurs due to safety considerations.

In some circumstances utility companies will need to undertake rectification work to restore essential services for the community. This will need to be authorised by the control agency before it occurs due to safety considerations.

Community recovery should be referred to the State Emergency Management Plan.

3.5.3 Designated Safe Refuge Areas (SRAs)

The State Emergency Management Committee has an agreed policy on SRAs, the following is a summary of the key principles from this policy. SRAs will be the designated emergency relief centres identified by the Department for Families and

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Communities (DFC). The responsibility for designating, checking and regularly maintaining a list of designated SRAs rests with DFC. The DFC will consult with the Hazard Leaders to confirm the safety of the evacuation centres relative to their particular hazard. The Zone Coordinator as part of the Zone Emergency Management Plan will maintain the list of SRAs applicable to their zone.

The list of SRAs within each zone will be shared with all relevant agencies such that all control agencies and the coordinating agencies are able to access the most current list and are aware of which site/s have been selected as the designated SRAs for any specific emergency. The list of SRAs within each zone will also be shared with all relevant agencies such that a seamless transition between emergency management (*ie: activities during the impact phase of an emergency*) and community support/recovery can be achieved as soon as possible. (*ie: activities that assist and support the recovery of the community can commence immediately after the emergency is controlled*).

The use of a designated emergency relief centre as safe refuge must be considered by the control agency in the context of the actual event. The circumstances of the event may dictate that the designated emergency relief centre is no longer a safe refuge. The DFC through the Community Services Functional Service can provide support to identify non-designated emergency relief centres.

3.5.4 After Action Reviews / Debriefing / Centre for Lessons Learned

The CFS is committed to continuous improvement and has adopted a standard process for undertaking after action reviews and debriefing. This has been established for use at all levels including across agencies to ensure we identify opportunities for improvements in our systems of work and processes.

The Centre for Lessons Learned provides an ongoing forum and momentum for examining learnings from operations. It is a collective of personnel who have the common goal of ensuring that the system of work for incident management reflects best practice, the safety of firefighters and the community, as well as being effective and efficient. It monitors and advises on the dissemination of learnings and processes for effecting changes in the CFS system of work.

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4. PLAN REVIEW

As noted earlier, this document represents an interim iteration of Part Two of the State Bushfire Management Plan. A full version of the SBMP is to be prepared prior to the 2011/2012 Fire Danger Season. As such this document will undergo a full review as the comprehensive document is developed over the next twelve months.

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APPENDICES

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Appendix 1 - Summary of Ecological Fire Management Guidelines[7]

These Guidelines are to establish appropriate fire regimes to plan and manage fire within native vegetation to ensure the maintenance and enhancement of biodiversity.

Ecological Fire Management

The management of fire to maintain biodiversity is based on accumulating knowledge of species, populations and communities and their response to fire regimes, then applying this knowledge to fire management practices to maximise biodiversity outcomes. This approach is being used as a sound basis for the management of fire for biodiversity across Australia.

Methodology

These Ecological Fire Management Guidelines have been developed from the research and analysis of available data relating to the response of plant species to fire. The approach used by DENR to define the Ecological Fire Management Guidelines involves the identification of fire regime thresholds using flora Key Fire Response Species (the species most likely to decline due to each element of fire regime) within each major vegetation type. These species responses are used to set the fire regime thresholds. These thresholds are then assesses for the potential impacts of known faunal requirements, particularly the requirements of species of conservation significance. The steps taken in the development of the Ecological Fire Management Guidelines are:

- Vital attributes data of flora and fauna, and ecological communities are gathered and assessed.
- This knowledge is used to identify the Thresholds of Potential Concern (TPC) of fire regime (fire interval, intensity, season and type) where species significantly decrease or decline.
- Ecological Fire Management Guidelines are formed from these thresholds and are then used to guide the fire management practices to ensure that adequate habitat is available to maintain biodiversity (i.e. species, populations and communities).

Interpreting Ecological Fire Management Guidelines

Ecological Fire Management Guidelines have been defined for each Vegetation Type, enabling fire management to strategically plan and manage fire within the reserves in the planning area in a way that will ensure the maintenance and enhancement of biodiversity (see Table below).

Guidelines for five aspects of fire regime (interval, frequency, spatial, intensity and season) have been determined for all Vegetation Types within the planning area (where data is available). The upper and lower thresholds of potential

[7] See also the Department of Environment and Natural Resources, 2010, *Ecological Fire Management Guidelines*, Adelaide.

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concern for a particular Vegetation Type have been proposed, as well as recommendations on the management of fire frequency. Fire intensity requirements for species regeneration and undesired seasonal burning patterns have also been identified. Ecological Fire Management Guidelines should not be used as prescriptions; instead they define a window of “acceptable” fire regime that ensures the conservation of existing species.

Thresholds of Potential Concern

Thresholds of Potential Concern (TPC) are defined as ‘the limits of tolerance to a particular fire regime’. Of particular importance are:

- TPC1 Indicates the lower threshold for fire interval (in years) for a particular Vegetation Type. Vegetation within this Vegetation Type will be represented predominantly by early successional species if the inter-fire interval is less than the time specified, and those species that require longer to flower and set seed can disappear from a community.
- TPC2 Demonstrates the upper threshold for fire interval (in years) for a particular Vegetation Type. Populations of some species (e.g. obligate seeders) are likely to reduce within this Vegetation Type if fire is absent for more than the time specified.
- Spatially, a minimum of 40% (unless otherwise stated) of the area of an Vegetation Type in a landscape should be between TPC1 & TPC2 and 30% of a landscape should be above TPC2.
- TPC3 - Two or more fires in succession can severely impact on some species and habitats (significantly more than a single fire) and are to be avoided, if possible.
- TPC4 - Successive low intensity fires may result in the decline of some species. A moderate to high intensity fire at least every 3rdfire event (in the same area) may be desirable in these communities.
- TPC5 - Some species are stimulated to regenerate by moderate to high intensity fire. Consideration needs to be given to ensuring that communities with these species are burnt with moderate to high intensity fire at least once in the regeneration cycle.
- TPC6 - Many plants and fauna are more vulnerable to fire impacts during particular seasons (Spring, Summer, Autumn, Winter) or climatic cycles (periods of ‘drought’ and ‘wet years’ in arid and semi-arid areas). Fires during these periods should be minimised.

If any of the thresholds are breached, species of sensitive functional types are likely to significantly decline. In particular, fire intervals between the upper and the lower threshold (see Table) are predicted to maintain the species complement, whereas intervals shorter than the lower threshold or longer than the upper threshold are predicted to lead to the decline of the Key Fire Response Species.

Table 1: Ecological Fire Management Guidelines for each fire-prone MVS in South Australia

		ECOLOGICAL FIRE REGIME							
		Interval		Spatial Criteria		Frequency	Intensity		Season
MVS No	MVS NAME	TPC1: Lower threshold in years	TPC2: Upper threshold in years	Inter-fire intervals within TPC1 & TPC2 across more than X% of the extent of this MVS within the planning area	% > TPC2	Avoid more than 2 fires within a period of X years	Avoid more than 2 successive fires of low intensity (Yes/No)	Some medium to high intensity fire needed to regenerate some species (Yes/No)	Avoid more than 1 successive fires in season
4	*Eucalyptus* forests with a shrubby understorey	20	50	40	30	40	Y	Y	Spring or during & following drought
5	*Eucalyptus* forests with a grassy understorey	5	50	40	30	30	N	N	Spring or during & following drought
8	*Eucalyptus* woodlands with a shrubby understorey	20	50	40	30	40	Y	Y	Spring or during & following drought
9	*Eucalyptus* woodlands with a grassy understorey	5	50	40	30	30	Y	Y	Spring or during & following drought
12	*Callitris* forests and woodlands	15	60	40	30	70	Y	Y	During & following drought
15	*Melaleuca* open forests and woodlands	15	60	40	30	70	N	N	During & following drought
19	*Eucalyptus* low open woodlands with tussock grass	5	50	40	30	60	Y	Y	Spring or during & following drought
26	*Casuarina* and *Allocasuarina* forests and woodlands	20	50	40	30	60	N	N	During & following drought
27	Mallee with hummock grass	20	50	40	30	60	Y	Y	During & following drought

Table 1: Ecological Fire Management Guidelines for each fire-prone MVS in South Australia

		ECOLOGICAL FIRE REGIME							
		Interval		Spatial Criteria		Frequency	Intensity		Season
MVS No	MVS NAME	TPC1: Lower threshold in years	TPC2: Upper threshold in years	Inter-fire intervals within TPC1 & TPC2 across more than X% of the extent of this MVS within the planning area	% > TPC2	Avoid more than 2 fires within a period of X years	Avoid more than 2 successive fires of low intensity (Yes/No)	Some medium to high intensity fire needed to regenerate some species (Yes/No)	Avoid more than 1 successive fires in season
28	Low closed forest or tall closed shrublands (including *Acacia*, *Melaleuca* and *Banksia*)	15	40	40	30	50	Y	Y	Same season
29	Mallee heath and shrublands	20	40	40	30	40	Y	Y	Spring or during & following drought
30	Heath	15	40	40	30	50	Y	Y	Same season
33	Arid and semi-arid hummock grasslands	10	50	40	30	60	Y	Y	During & following drought
36	Temperate tussock grasslands	3	10	40	30	20	N	N	Autumn
37	Other tussock grasslands	3	15	40	30	20	N	N	Autumn
47	*Eucalyptus* open woodlands with a shrubby understorey	20	50	40	30	60	N	N	During & following drought
48	*Eucalyptus* open woodlands with a grassy understorey	10	40	40	30	40	Y	Y	Spring or during & following drought
49	*Melaleuca* shrublands and open shrublands	20	60	40	30	70	N	N	Spring

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Table 1: Ecological Fire Management Guidelines for each fire-prone MVS in South Australia

		ECOLOGICAL FIRE REGIME							
		Interval		Spatial Criteria		Frequency	Intensity		Season
MVS No	MVS NAME	TPC1: Lower threshold in years	TPC2: Upper threshold in years	Inter-fire intervals within TPC1 & TPC2 across more than X% of the extent of this MVS within the planning area	% > TPC2	Avoid more than 2 fires within a period of X years	Avoid more than 2 successive fires of low intensity (Yes/No)	Some medium to high intensity fire needed to regenerate some species (Yes/No)	Avoid more than 1 successive fires in season
55	Mallee with an open shrubby understorey	20	40	40	30	40	Y	Y	Spring or during & following drought
61	Mallee with a tussock grass understorey	10	40	40	30	50	N	N	During & following drought

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