



# **Review of Western Australia's Bushfire Preparedness**

**April 2009**

With Status Update of Recommendations and Notes

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# Review of Western Australia's Bushfire Preparedness

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April 2009

- Status Update of Review Committee Recommendations and Notes, as at 13 October 2009
- Review of Western Australia's Bushfire Preparedness, April 2009



## Review of Western Australia's Bushfire Preparedness April 2009

### Status Update of Review Committee Recommendations and Notes as at 13 October 2009

	<b>Recommendation</b>	<b>Status</b>
1	<p>The prioritising of the critical amendments to the <i>Bush Fires Act 1954</i> recommended by the Community Development and Justice Standing Committee that relate to fire management, ie:</p> <ol style="list-style-type: none"> <li>a. Fire and Emergency Services Authority (FESA)'s ability to assume control of a fire in specific circumstances</li> <li>b. Amendments to the definition of property</li> <li>c. Providing FESA with the authority to declare a total fire ban</li> </ol>	<p>The critical amendments are provided for in the <i>Bush Fires Amendment Bill 2009</i>. The Bill was declared an Urgent Bill on 17 September 2009 and has been considered and passed without amendment by the Legislative Assembly. The Legislative Council will give consideration to the Bill when it resumes sitting on 13 October 2009. Subsidiary legislation, forms, delegations and other instruments necessary for the implementation of this legislation are currently being developed in consultation and are scheduled for completion by 1 November 2009.</p>
2	<p>The prioritisation, by the State Emergency Management Committee (SEMC), of bushfire preparedness activities including updating WESTPLAN - BUSHFIRE and coordinating bushfire exercises prior to the 2009/10 bushfire season.</p>	<p>WESTPLAN - BUSHFIRE has been completely re-drafted. Internal consultation to refine version 2 of the draft is in progress with Department of Environment and Conservation (DEC) &amp; local governments commencing their review. It is intended the revised WESTPLAN – BUSHFIRE will be in place for 1 December 2009.</p>
3	<p>That further amendments to the <i>Bush Fires Act 1954</i> to provide fire response agencies with the necessary authorisation and statutory protection to respond to a fire on private property, or land that Local Government, Department of Environment and Conservation (DEC) or FESA is responsible for, until such time as the responsible agency is able to attend and take control. The amendments to be drafted, in conjunction with the urgent progression of critical amendments as recommended by the Community Development and Justice Standing Committee.</p>	<p>The amendments are provided for in the <i>Bush Fires Amendment Bill 2009</i>. Refer 1 above for more detail.</p>
4	<p>That the Minister for Emergency Services consider the appointment of the Chief Executive Officer, Department of Environment and Conservation, as a member of the SEMC.</p>	<p>On 21 September 2009 the Minister approved the appointment of a representative of DEC to the SEMC. FESA (Emergency Management WA) are progressing the appointment.</p>

	<b>Recommendation</b>	<b>Status</b>
5	That FESA assess the cost and other implications of proposed changes to bushfire prone zone declarations which would allow the whole State to be declared bushfire prone	This matter was a key issue discussed at the Bush Fire Summit in August 2009 and FESA is continuing to consult and gather information in order to develop a submission for Government's consideration on the options, cost and implications.  It is expected that the submission will be completed by 1 December 2009.
6	That the Department of the Attorney General, in consultation with FESA and Western Australia Police (WAPOL), consider options for legislative amendments to extend criminal liability to all damage, injury or death directly caused by arson.	The Attorney General gave notice to introduce the <i>Arson Legislation Amendment Bill 2009</i> on 13 October 2009. The new legislation will create an entirely new offence which makes it clear that if a person does not take reasonable care when in control of a fire or ignition source and someone is injured or killed as a result, the offender will be held to account.

	<b>Review Committee Notes</b>	<b>Status</b>
1	<p>a. Prescribed burning is an inherently complex and contentious issue because it impacts on a wide range of environmental and economic values.</p> <p>b. There is general agreement that the current 200,000ha prescribed burning target in the South-West administered by DEC provides an appropriate level of protection against the risk of major destructive bushfires occurring on DEC managed land.</p>	In July 2009, the Government took note of and approved DEC's policy and approach to prescribed burning and fire management generally.
2	FESA, DEC and Local Government will consult at the start of each fire season on fuel reduction priorities in high risk areas, prior to the respective agencies approving the overall annual master prescribed burning program.	DEC is currently consulting with FESA and Local Government on the Spring 2009 prescribed burning program.  The State Level Prescribed Burning policy (see note 3 below) will guide the approval process for the annual master prescribed burning program.

	<b>Review Committee Notes</b>	<b>Status</b>
3	FESA, DEC and Local Government will prepare a state level strategic prescribed burning policy for consideration by Cabinet.	FESA is coordinating meetings with DEC and Local Government with a view to preparing a State Level Prescribed Burning policy with the first meeting to be conducted in December 2009.
4	In the context of the proposed COAG consideration of Australia's natural disaster arrangements (expected to report by the third quarter meeting 2009), opportunities to raise Bush Fire Brigade funding be pursued.	FESA is coordinating a report to the Federal Attorney General on behalf of the Minister for Emergency Services on any measures within the Commonwealth's responsibility that may assist Western Australia. It is anticipated that this report will raise the issue of Bush Fire Brigade funding.
5	If required, DPC will facilitate an officer level working group comprised of representatives from FESA, DEC, Local Government and other relevant agencies to finalise a draft of the WESTPLAN - BUSHFIRE incorporating procedures relating to FESA taking control of a fire in specific circumstances.	Refer to comments on recommendation 2 above. Officers of FESA, DEC and Western Australian Local Government Association (WALGA) met on 7 October 2009 to progress the revised WESTPLAN - BUSHFIRE.
6	If required, DPC will facilitate meetings between FESA, DEC and other relevant agencies to resolve any specific concerns identified through the drafting process of the critical amendments, the Emergency Services Bill and the format of Fire Management Plans.	On hold, pending further development of Emergency Services Bill, particularly with respect to binding of the Crown and Fire Management Plans.
7	<p>DEC will recommend that the Minister for Environment seek approval to:</p> <ol style="list-style-type: none"> <li>1. progress proposed amendments to the <i>Conservation and Land Management Act 1984</i>, to provide for fire management (including prescribed burning) as a designated land management function under the Act, noting that the amendments are not intended to replicate or supersede any provisions of the proposed Emergency Services Act;</li> <li>2. extend immunity to the State and the CALM Executive Body for direct and/or vicarious liability for death, injury, loss or damage caused by the tortious acts or omissions of</li> </ol>	Proposals approved July 2009.

	<b>Review Committee Notes</b>	<b>Status</b>
	<p>DEC staff performing fire management functions (including prescribed burning);</p> <p>3. exercise greater flexibility in the application of smoke management guidelines.</p>	
8	<p>The Economic Regulation Authority (ERA) is currently reviewing Western Power's access arrangement and associated network tariffs. If the ERA deems the expenditure is prudent and efficient then Western Power will invest the funds over the next three years in projects and mitigation strategies aimed at reducing the likelihood of Western Power equipment starting a fire.</p>	<p>The ERA released its draft decision on 17 July 2009, and the deadline for responses (including from Western Power and the Department of Treasury and Finance) was 11 September 2009. The ERA recently extended the deadline for a final determination to 4 December 2009.</p> <p>The ERA review process sets broad forward expenditure levels but is not in itself sufficient to demonstrate the efficiency of expenditure. Subsequent to a final decision Western Power may need to provide more detail to the ERA and Cabinet for confirmation of specific program expenditure to ensure regulatory approval and associated funding. At the conclusion of the next Access Arrangement, actual expenditure will need to be reconciled against the pre-approved budget. Confirmation of mitigation strategies aimed at reducing the likelihood of Western Power equipment starting a fire will emerge from this complex process.</p> <p>It is anticipated that any increase in funding sought by Western Power for the purposes of bushfire prevention will be subject to separate New Facilities Investment Test applications to the ERA and funding submissions to Government. In light of the decision, the amounts originally proposed for bush fire mitigation strategies may be revised.</p>
9	<p>Western Power has formed a Vegetation Near Power Lines Committee comprising local governments, the Office of Energy Safety and other stakeholders in the vegetation management industry to address risk of vegetation below power lines.</p>	<p>The Vegetation Near Power Lines Committee has met six times to date. WALGA also chairs a sub-committee that is developing a partnership agreement between Local Governments and Western Power to solve issues arising from vegetation management around power lines.</p>



	<b>Review Committee Notes</b>	<b>Status</b>
		With respect to conductor clashing, Western Power has adopted an operational efficiency approach to implementing the Conductor Clashing programme and has dramatically increased solutions (3000 in 2008/09 from 500 - 1500 in previous years) and reduced unit costs.
10	Issues relating to land use planning in Western Australia as it relates to natural hazard mitigation (including bushfire) will continue to be progressed through the State Mitigation Committee's Land Use Planning Working Group reporting to SEMC by December 2009.	The Land Use Planning Working Group is working with the Department of Planning and Department of Commerce to identify roles and responsibilities under Western Australia's planning, development and building framework. The focus of this work is identifying potential gaps in respect of natural hazards. The Working Group is also working on documentation regarding bushfire mitigation with FESA and the Department of Planning.
11	The Department of Health will inquire whether further research is required into the need for dedicated arson treatment programs through the National Health and Medical Research Council or through academic programs, such as the Victorian Institute of Forensic Mental Health.	In progress.
12	DEC and FESA will collaborate to define bushfire research priorities to maximise the application and sharing of research findings in all bushfire management applications.	FESA has been working closely with the Bushfire Cooperative Research Centre (CRC) which is expected to finalise the national research program in November 2009. Once this program is finalised FESA and DEC will be able to identify the gaps that exist from a Western Australian perspective and build arrangements to address the priorities.
13	DEC and FESA will analyse and provide further advice to the Minister for Environment on maintaining (or enhancing) the current level of "within Government" fire research capacity in Western Australia.	Once the Bushfire CRC's national research program is finalised (refer point 12 above), FESA and DEC will be able to identify any gaps that exist in the research and the capacity required to address them.
14	FESA, DEC and the Bureau of Meteorology (BoM) will prepare a joint report for SEMC on decision making tools to identify areas at risk during 'elevated extreme Fire Danger Index conditions' prior to 1 October 2009.	This issue is being dealt with through the development of a "National Framework for Scaled Advice and Warnings to the Community". Western Australia's input into this process is being led by FESA.

	<b>Review Committee Notes</b>	<b>Status</b>
		<p>FESA is currently leading “at risk” community evaluations via the Community Development portfolio with locations being identified utilising the established Bush Fire Threat Analysis and operational input at a regional level. Localities are being assessed as low, high or very high risk which will inform our improved community warning system prior to and during emergencies.</p>
15	<p>FESA will give consideration to the outcomes of the Victorian Bushfire Royal Commission, in particular, the extent to which any change is required to the ‘Prepare to Stay and Defend or Leave Early’ strategy and will report the findings to SEMC.</p>	<p>FESA has established and is chairing an interagency group (including WALGA) to prepare a Western Australian response to the Royal Commission Interim Report. Two meetings have been held to date.</p> <p>FESA has been working closely with the Australasian Fire and Emergency Service Authorities Council and other jurisdictions to develop and implement changes to the strategy. The national “Prepare. Act. And Survive” strategy/message is currently at implementation planning phase with a rollout expected for the forthcoming 09/10 fire season.</p>
16	<p>FESA and DEC will consider options and funding issues for the provision of BoM forecasters to ensure more effective interpretation of forecasts by fire agencies, and report to their Ministers before 1 October 2009.</p>	<p>Discussions are underway between FESA, DEC and the Bureau of Meteorology (BoM). BoM operate a National Service Delivery Model and are currently examining which services currently provided to fire agencies are covered by this Model and which are additional to it.</p> <p>FESA has convened several meetings with the BoM, WALGA and DEC staff to establish fire forecasting strategies for the coming fire season. All agencies have agreed to new procedures and standard processes that will incorporate the recommendations of the National Bushfire Taskforce and Interim Recommendations of the Victorian Royal Commission.</p>

	<b>Review Committee Notes</b>	<b>Status</b>
17	SEMC will oversee implementation of its resolution regarding adoption of a Crisis Information Management System as a priority prior to 1 October 2009.	<p>At its September 2008 meeting, the State Emergency Management Committee (SEMC) endorsed WebEOC as the preferred Crisis Information Management System (CIMS) but resolved that agencies with a specific system requirement could choose an alternative system on the understanding that it was interoperable with WebEOC. SEMC was briefed at its September 2009 meeting on the current status of implementation:</p> <ul style="list-style-type: none"> <li>• Three emergency management agencies had adopted WebEOC;</li> <li>• Three emergency management agencies plan to adopt different (non-WebEOC) but compatible systems;</li> <li>• Three emergency management agencies were still evaluating the concept; and</li> <li>• A further three agencies plan not to use a CIMS as they rarely have need for such a system and are satisfied that they could access the HMAs CIMS as required.</li> </ul> <p>SEMC will continue to monitor this situation.</p>
18	The Emergency Services Communication Strategy, which has the endorsement of emergency services agencies, will be submitted in the near future to Cabinet.	The Emergency Services Communication Strategy has been endorsed. The strategy is to be monitored by the State Telecommunications Emergency Committee with FESA responsible for reporting to the Minister for Emergency Services.

	<b>Review Committee Notes</b>	<b>Status</b>
19	Cabinet will consider, in a separate submission, the proposal being submitted to COAG for the development of a national community emergency warning capability.	COAG considered this matter on 30 April 2009 and agreed to: <ul style="list-style-type: none"> <li>• take immediate steps to enhance Australia's natural disaster arrangements through the development of a telephone-based emergency warning system that will enable the States and Territories to deliver warnings to landline and mobile telephones based on the billing address of the subscriber, to be operational by October 2009; and</li> <li>• undertake further research into a capability to deliver warnings based on the location of a mobile telephone. One of the steps taken by the Commonwealth is the establishment of a system to allow States and Territories to access location based telephone numbers (LBNS). FESA is proceeding with testing of StateAlert and will be ready to implement when the LBNS is completed.</li> </ul>
20	DPC will make representations to the Commonwealth to progress work on National Transport Capability for Mass Casualty Incidents arrangements and plans including utilising Defence assets.	In progress.
21	DPC will make representations to the Australian Health Protection Committee to progress work on revision of the National Burns Plan.	In progress.
22	The State arrangements for emergency welfare that would apply in the event of bushfire, supported by the current level of human and other resources, provide an effective emergency welfare capability.	No action required at this time.
23	The outcomes of the Victorian Royal Commission as they relate to noninsurance and underinsurance of property may be constructive in informing the work of SEMC and its Recovery Services sub-committee to improve community resilience in Western Australia.	The 2009 Victorian Bushfires Royal Commission is expected to hand down its final report in July 2010. It is expected that the final report will examine insurance related issues.

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GOVERNMENT OF  
WESTERN AUSTRALIA

# **Review of Western Australia's Bushfire Preparedness**

**April 2009**



# Review of Western Australia’s Bushfire Preparedness 2009

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## **EXECUTIVE SUMMARY**

Bushfires are a natural part of the Australian landscape and Western Australia experiences approximately 6000 bushfires every year. The vast majority of these are detected and extinguished by our volunteer and career fire fighters before they have time to escalate into major bushfires. On occasion, however, bushfires can intensify very rapidly, threatening lives, property and the natural environment. It is critical in these circumstances that we are well prepared and capable of combating these bushfires effectively.

The recent Victorian bushfires resulted in the loss of over 170 lives and the destruction of over 2000 homes. The scale of the devastation has refocused the nation's attention on the threat posed by bushfires.

On 12 February 2009, in light of the Victorian event, the Premier requested the Director General, Department of the Premier and Cabinet, to undertake a review of Western Australia's bushfire preparedness and to report to Cabinet on the findings. A Review Committee was convened to undertake the review.

The Review Committee determined that Western Australia is well placed to respond to bushfires with well established plans and arrangements, and strong relationships between the agencies and organisations involved. As the Auditor General found in his 2004 report, 'there is a high level of goodwill and cooperation across fire fighting organisations which support fire fighting efforts'. Nevertheless, the Review Committee identified areas of concern, which are outlined in this report, and makes the following recommendations to further improve Western Australia's bushfire preparedness and capability.

## **Recommendations and Notes**

The Review Committee **recommends**:

1. The prioritising of the critical amendments to the *Bush Fires Act 1954* recommended by the Community Development and Justice Standing Committee that relate to fire management, ie:
  - a. Fire and Emergency Services Authority (FESA)'s ability to assume control of a fire in specific circumstances
  - b. Amendments to the definition of property
  - c. Providing FESA with the authority to declare a total fire ban
2. The prioritisation, by the State Emergency Management Committee (SEMC), of bushfire preparedness activities including updating WESTPLAN - BUSHFIRE and coordinating bushfire exercises prior to the 2009/10 bushfire season.
3. That further amendments be made to the *Bush Fires Act 1954* be drafted to provide fire response agencies with the necessary authorisation and statutory protection to respond to a fire on private property, or land that Local Government, Department of Environment and Conservation (DEC) or FESA is responsible for, until such time as the responsible agency is able to attend and take control. The amendments to be drafted, in conjunction with the urgent progression of critical

amendments as recommended by the Community Development and Justice Standing Committee.

4. That the Minister for Emergency Services consider the appointment of the Chief Executive Officer, Department of Environment and Conservation as a member of the State Emergency Management Committee.
5. That FESA assess the cost and other implications of proposed changes to bushfire prone zone declarations which would allow the whole State to be declared bushfire prone.
6. That the Department of the Attorney General, in consultation with FESA and Western Australia Police (WAPOL), consider options for legislative amendments to extend criminal liability to all damage, injury or death directly caused by arson.

The Review Committee **notes** that:

1.
  - a. Prescribed burning is an inherently complex and contentious issue because it impacts on a wide range of environmental and economic values.
  - b. There is general agreement that the current 200,000ha prescribed burning target in the South-West administered by DEC provides an appropriate level of protection against the risk of major destructive bushfires occurring on DEC managed land.
2. FESA, DEC and Local Government will consult at the start of each fire season on fuel reduction priorities in high risk areas, prior to the respective agencies approving the overall annual master prescribed burning program.
3. FESA, DEC and Local Government will prepare a state level strategic prescribed burning policy for consideration by Cabinet.
4. In the context of the proposed COAG consideration of Australia's natural disaster arrangements (expected to report by the third quarter meeting 2009), opportunities to raise Bush Fire Brigade funding will be pursued.
5. If required, DPC will facilitate an officer level working group comprised of representatives from FESA, DEC, Local Government and other relevant agencies to finalise a draft of the WESTPLAN - BUSHFIRE incorporating procedures relating to FESA taking control of a fire in specific circumstances.
6. If required, DPC will facilitate meetings between FESA, DEC and other relevant agencies to resolve any specific concerns identified through the drafting process of the critical amendments, the Emergency Services Bill and the format of Fire Management Plans.

7. DEC will recommend that the Minister for Environment seek to:
  - a. progress proposed amendments to the *Conservation and Land Management Act 1984*, to provide for fire management (including prescribed burning) as a designated land management function under the Act, noting that the amendments are not intended to replicate or supersede any provisions of the proposed Emergency Services Act;
  - b. extend immunity to the State and the CALM Executive Body for direct and/or vicarious liability for death, injury, loss or damage caused by the tortious acts or omissions of DEC staff performing fire management functions (including prescribed burning);
  - c. exercise greater flexibility in the application of smoke management guidelines.
8. The Economic Regulation Authority (ERA) is currently reviewing Western Power's access arrangement and associated network tariffs. If the ERA deems the expenditure is prudent and efficient then Western Power will invest the funds over the next three years in projects and mitigation strategies aimed at reducing the likelihood of Western Power equipment starting a fire.
9. Western Power has formed a Vegetation Near Power Lines Committee comprising local governments, the Office of Energy Safety and other stakeholders in the vegetation management industry to address risk of vegetation below power lines.
10. Issues relating to land use planning in Western Australia as it relates to natural hazard mitigation (including bushfire) will continue to be progressed through the State Mitigation Committee's Land Use Planning Working Group reporting to SEMC by December 2009.
11. The Department of Health will inquire whether further research is required into the need for dedicated arson treatment programs through the National Health and Medical Research Council or through academic programs, such as the Victorian Institute of Forensic Mental Health.
12. DEC and FESA will collaborate to define bushfire research priorities to maximise the application and sharing of research findings in all bushfire management applications.
13. DEC and FESA will analyse and provide further advice to the Minister for Environment on maintaining (or enhancing) the current level of "within Government" fire research capacity in Western Australia.
14. FESA, DEC and the Bureau of Meteorology (BoM) will prepare a joint report for SEMC on decision making tools to identify areas at risk during 'elevated extreme Fire Danger Index conditions' prior to 1 October 2009.

15. FESA will give consideration to the outcomes of the Victorian Bushfire Royal Commission, in particular, the extent to which any change is required to the 'Prepare to Stay and Defend or Leave Early' strategy and will report the findings to SEMC.
16. FESA and DEC will consider options and funding issues for the provision of BoM forecasters to ensure more effective interpretation of forecasts by fire agencies, and report to their Ministers before 1 October 2009.
17. SEMC will oversee implementation of its resolution regarding adoption of a Crisis Information Management System as a priority prior to 1 October 2009.
18. The Emergency Services Communication Strategy, which has the endorsement of emergency services agencies, will be submitted in the near future to Cabinet.
19. Cabinet will consider, in a separate submission, the proposal being submitted to COAG for the development of a national community emergency warning capability.
20. DPC will make representations to the Commonwealth to progress work on National Transport Capability for Mass Casualty Incidents arrangements and plans including utilising Defence assets.
21. DPC will make representations to the Australian Health Protection Committee to progress work on revision of the National Burns Plan.
22. The State arrangements for emergency welfare that would apply in the event of bushfire, supported by the current level of human and other resources, provide an effective emergency welfare capability.
23. The outcomes of the Victorian Royal Commission as they relate to noninsurance and underinsurance of property may be constructive in informing the work of SEMC and its Recovery Services sub-committee to improve community resilience in Western Australia.

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## **INTRODUCTION**

On 12 February 2009, in light of the Victorian event, the Premier requested the Director General, Department of the Premier and Cabinet, to undertake a review of Western Australia's bushfire preparedness and report back to Cabinet within the month.

A Review Committee comprising the Director General, Department of the Premier and Cabinet, the Director General, Department of Environment and Conservation and the membership of the State Emergency Management Committee was convened to undertake the review.

The Review Committee was asked to:

- Assess the measures currently available to manage and respond to bushfire risk within the State;
- Identify those risk treatment options on which relevant agencies and organisations are in agreement, as well as points of difference;
- Propose a process to address issues on which there is not agreement;
- Report on any other matter considered relevant to the Review.

Details of the Review Committee's membership and terms of reference are attached at **Annex A**.

The Review Committee first met on 20 February 2009 and agreed a number of priority areas for consideration as identified within the report. Due to the complex nature of the issues, additional time to complete the review was necessary.

## ***Other reviews and reports***

### **Previous reports**

There are a number of reports that have relevance to bushfire preparedness in Western Australia. The most significant recent reports that have led to reforms include:

- 1994, West Australian Government Ministerial Review Panel enquiring into CALM's prescribed burning policy and practices and wildfire threat analysis.
- 2003, House of Representatives Select Committee report on the inquiry into bushfires – A Nation Charred
- 2004, Tenterden Coronial Inquiry
- 2004, Ocean Farm Fires Coronial Inquiry,
- 2004, Auditor General for Western Australia Performance Examination - Responding to Major Bushfires
- 2004, COAG National Inquiry on Bushfire Mitigation and Management
- 2006 Community Development and Justice Standing Committee Report into Fire and Emergency Services Legislation
- 2008 Report on a Bushfire Threat Analysis for Western Australia, C Muller Consulting

Implementation of the findings from the Auditor General's Report and the Coronial Inquiries is provided at **Annex B – F**.

In preparing this report, issues raised by community and lobby groups such as the Bushfire Front and the Western Australian Forest Alliance were also considered. Those issues predominately centre around prescribed burning.

## **2009 Victorian Bushfires Royal Commission**

The Victorian Bushfires Royal Commission was established on 16 February to investigate the causes and responses to the bushfires which swept through parts of Victoria in late January and February 2009. The Commission has been granted broad terms of reference, which will allow it to investigate and report on every aspect of the disaster. An interim report is due to be handed down on 17 August 2009, with the final report due by 31 July 2010.

## **COAG consideration of Natural Disaster Arrangements**

In light of the devastation caused by the Victorian bushfires, and noting that States and Territories have primary responsibility for the management of emergencies within their jurisdictions, the Acting Prime Minister, the Hon Julia Gillard MP, wrote to Premiers and Chief Ministers on 26 March 2009, asking that they consider an audit of their fire risk and readiness, with a view to determining their ability to respond to similar catastrophic events.

The Acting Prime Minister has also invited Premiers and Chief Ministers to agree at the April 2009 meeting of COAG to conduct such an audit within their own jurisdiction, and to report back to COAG at the third quarter meeting of 2009.

## ***Outline of Existing Arrangements***

### **Relevant Legislation<sup>1</sup>**

#### ***Bush Fires Act 1954***

The *Bush Fires Act 1954* was enacted to make better provision for diminishing the dangers that result from bushfires, and for the prevention, control and extinguishment of bushfires. It is administered by the Fire and Emergency Services Authority of Western Australia (FESA). The *Bush Fires Act* applies throughout the State, including urban areas and fire districts gazetted under the *Fire Brigades Act 1942*. However the provisions of the *Bush Fires Act* do not affect the provisions of the *Fire Brigades Act 1942* or the *Conservation and Land Management Act 1984*. The *Bush Fires Act* outlines the obligations with respect to fire, and the powers that may be exercised by the combating authorities, local government, FESA and the Department of Environment and Conservation (DEC).

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<sup>1</sup> The *Bush Fires Act*, the *Fire and Emergency Services Act* and *Bush Fire Brigades Act* are to be repealed and replaced with one comprehensive Emergency Services Act. Refer to discussion of the Community Development and Justice Standing Committee Report p13.



### Fire and Emergency Services Authority Act 1998

The *Fire and Emergency Services Authority Act 1998* establishes FESA with functions relating to the provision and management of emergency services.

FESA activities are defined as:

- (a) the prevention, control and extinguishment of fires;
- (b) the prevention and control of other incidents;
- (c) the provision of emergency services in relation to incidents;
- (d) the protection and saving of life and property endangered by incidents;
- (e) the promotion of the safety of life and property from incidents;
- (f) the rendering safe of the sites of incidents;
- (g) the carrying out of —
  - (i) rescue operations;
  - (ii) search and rescue operations;
  - (iii) marine search and rescue operations;
  - (iv) assistance operations;
  - (v) monitoring activities.

### Fire Brigades Act 1942

The *Fire Brigades Act 1942* consolidates and amends the law relating to the prevention and extinguishing of fires, the confining and ending of hazardous material incidents and the protection of life and property from fire, hazardous material incidents and accidents.

### Conservation and Land Management Act 1984

The purpose of the *Conservation and Land Management Act 1984 (CALM Act)* is to make better provision for the use, protection and management of certain public lands and waters and the flora and fauna thereof. It establishes the authorities to be responsible for conservation and land management including the Conservation Commission which develops policies and provides independent advice to the Minister for Environment with respect to conservation, the management of ecological biodiversity and the application of ecologically sustainable forest management.

The relevant land (for the purposes of this Report) to which the *CALM Act* applies comprises state forest; timber reserves; national parks; conservation parks; nature reserves; and any other land reserved under the *Land Act 1933* and vested by order under that Act in the Conservation Commission

### Emergency Management Act 2005

The *Emergency Management Act 2005* provides for the prompt and coordinated organisation of emergency management in the State. The Act establishes the State Emergency Management Committee (SEMC) (refer **Annex A** for SEMC membership).

SEMC has a number of functions, including advising the Minister for Emergency Services on the preparedness of the State to combat emergencies, and providing direction, advice and support to the public and private sectors and the community on

emergency planning, preparation, and management. The Act also provides for the establishment of the State Disaster Council and State Emergency Coordination Group when required.

The Act provides a range of emergency powers which may be exercised upon declaration by the Minister, of a State of Emergency, or declaration by a Hazard Management Agency (HMA) of an Emergency Situation.

The Act also provides for the preparation of State emergency management plans (WESTPLANS). These are prepared by HMAs or Support Organisations to provide strategic, state-level arrangements for managing particular hazards for which they are responsible.

## **Agency Roles and Responsibilities**

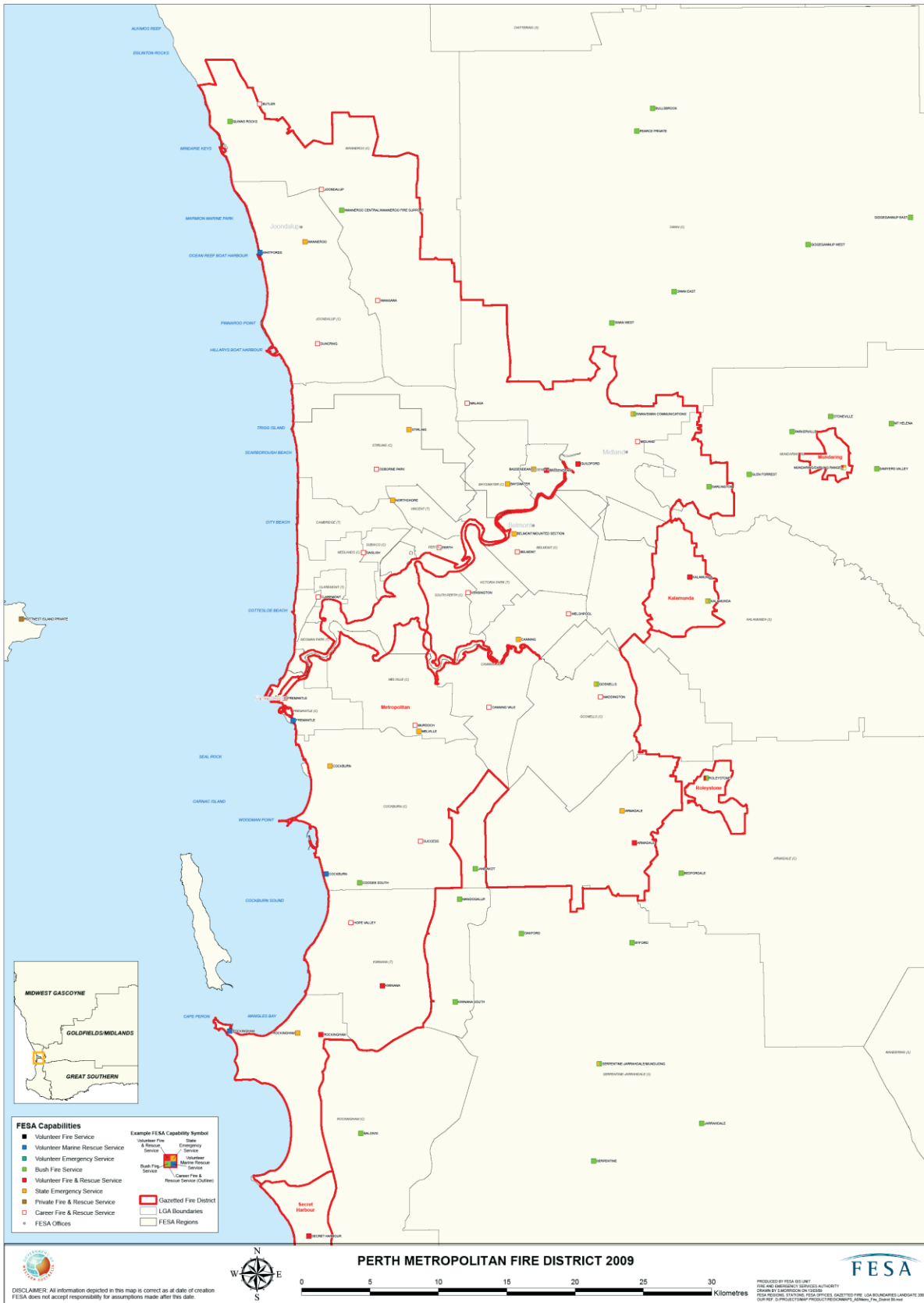
Under the existing legislative arrangements, bushfire fighting responsibilities are shared between FESA, DEC, and local governments. Each of these organisations has the authority and responsibility to manage bushfires and to command resources within its own jurisdiction.

### *Fire and Emergency Services Authority of Western Australia (FESA)*

In accordance with Part II 5(2) of the *Fire Brigades Act 1942*, FESA has operational responsibility for bushfires inside gazetted fire districts. These districts include most rural townships, regional centres and the greater portion of the Perth metropolitan area (refer Map 1). FESA also supports local governments by providing advice on technical and operational matters and training volunteers.

FESA may assume control of fires on local government controlled land if requested to do so by the relevant local authority. FESA may also assume control of fires if the Minister for Emergency Services declares a bushfire emergency or if a bushfire emergency period is declared in the designated area.

**Map 1: Perth Metropolitan Gazetted Fire District**



Department of Environment and Conservation (DEC)

At present, in accordance with the Section 39(2)(a) of the *Bush Fires Act 1954* an authorised CALM officer has the power to take control of bushfires burning in or near forest land or Crown land including State forests, timber reserves, national parks, conservation parks, and nature reserves except where they exist within gazetted fire districts or town sites area.

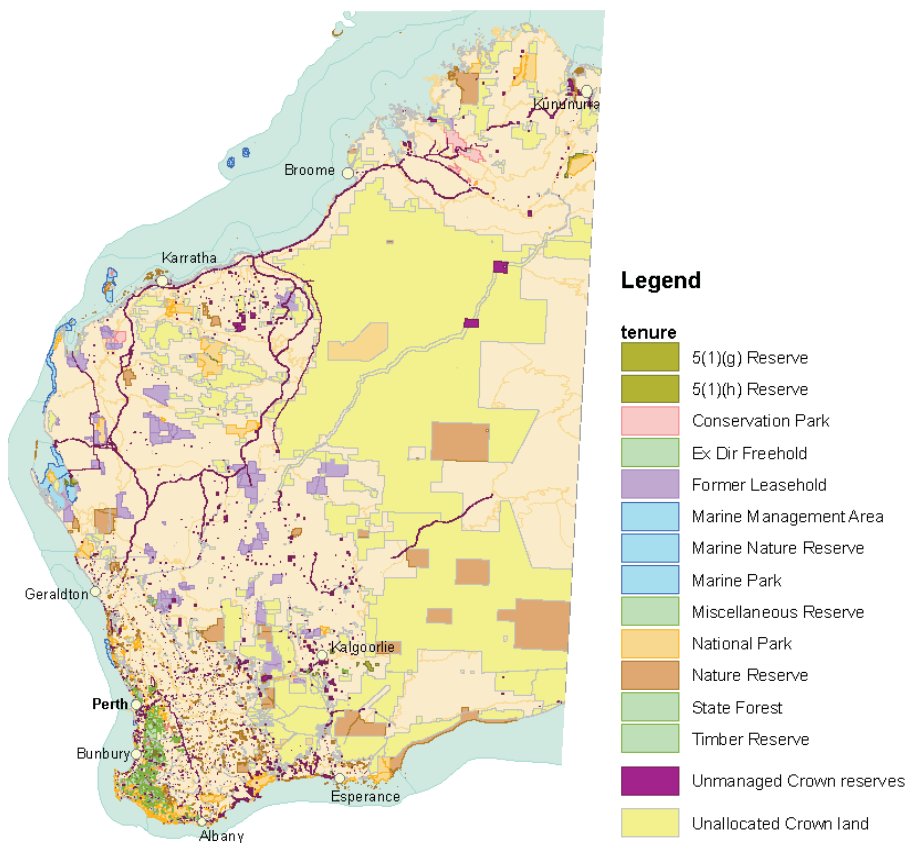
DEC is responsible for fire prevention on Unallocated Crown Land and Unmanaged Reserves (outside of gazetted fire districts and town sites) but not for fire suppression.

Map 2 shows the variety of land tenure for which DEC is responsible. The South West in particular has a high concentration of national parks, reserves and State forests.

DEC supports local governments and their brigades in the detection (through spotter planes and fire tower networks) and suppression of fires adjacent to and on DEC-managed lands within these local government areas. Local Government and FESA capability in rural Western Australia is also used in support of DEC.

Currently, authorised *CALM Act* officers do have legal power to take control of fires that are near forest or crown lands if that is the case. Each year DEC takes charge of 200 to 400 bushfires that occur outside of DEC-managed lands.

Map 2 Land Tenure Responsibilities of DEC



### Local Government

Local Governments are responsible for the establishment and management of Bush Fire Brigades and for extinguishing fires on areas outside the Gazetted Fire District, with the exception of DEC managed lands. Bush Fire Brigades also respond to fires burning on Unallocated Crown Land (UCL) outside of Gazetted Fire Districts.

Under section 13(4) of the *Bush Fires Act 1954*, a local government is able to request FESA to take control of a bushfire. Of the local governments with bushfire responsibilities, 76 have initiated formal handover agreements with FESA for this eventuality. An example of Operational Response Agreement between FESA and a local government authority is attached at **Annex H**.

### Map 3 Unmanaged Reserves and Unallocated Crown Land for which Local Government is responsible for fire suppression



Map 4 Fire Suppression Responsibilities



Key: FESA (Gazetted Fire Districts - pink), DEC (DEC-managed land – green) and Local Government (unallocated crown land and unmanaged reserves – yellow)

Private Land Owners

Section 28 of the *Bush Fires Act 1954* describes the responsibilities of land occupiers in the control and extinguishment of fire on private land and describes the authority of FESA, local government and DEC should the owner fail to extinguish the fire.

# ***Community Development and Justice Standing Committee Report***

In its 2006 *Inquiry into Fire and Emergency Services Legislation* (“the Committee Report”) the Community Development and Justice Standing Committee (CDJSC) examined fire and emergency services legislation in Western Australia, with particular reference to:

1. The means by which legislation puts in place effective and efficient measures to prevent, prepare for, respond to and ensure recovery from fire and emergencies;
2. The means by which legislation puts in place appropriate risk management strategies on land owned/managed by local governments or by State Government departments or agencies;
3. The effectiveness of incident command and control systems in fire and emergency services including interoperability in multi agency incidents;
4. The means by which State legislation establishes regulatory responsibility to ensure that appropriate prevention, preparedness and response measures are established for emergency services;
5. The means by which legislation provides an appropriate balance between centralised control and community centered emergency management; and
6. Any major issues that emerge that the Committee considers should be included within the inquiry.

## **Legislative Reforms Arising from the Report**

The Committee presented 88 recommendations intended to improve Western Australia’s capacity to combat the threat of bushfires. The Government supported the majority of the recommendations.

This included a recommendation to significantly restructure the emergency services legislative framework by repealing the *Bush Fires Act 1954*, *Fire Brigades Act 1942* and *Fire and Emergency Services Authority Act 1998* and to replace it with a single Emergency Services Act.

Due to the time required to progress a new Emergency Services Bill, a number of urgent amendments to the *Bush Fires Act 1954* are being drafted to give effect to other key Committee recommendations. These relate to:

- Changing FESA’s status from an Authority to a Department
- FESA assuming control of a fire in specific circumstances
- expanding the definition of property to include Crown Land and the flora and fauna on that land (in respect of penalties for arson causing damage to property)
- providing FESA with the authority to declare a total fire ban.

There are complexities associated with the first of these urgent amendments which will require time to resolve. The other three amendments that relate to fire management are not contingent upon the restructure of FESA, and will be able to be progressed more expeditiously if they are dealt with separately.

## ***Procedural Issues Arising from the the Community Development and Justice Standing Committee Report***

The Review Committee notes that a number of procedural matters that had arisen in implementing the CDJSC's Report recommendations are now being resolved through interagency consultation.

### **FESA Control of Fire in Specific circumstances**

The CDJSC determined that whilst control arrangements of multi-agency incidents would continue to be contentious, it would be appropriate for FESA to be declared as the agency with authority to take control of major fires throughout the State.

The CDJSC observed that this recommendation was based on a number of factors, including the following:<sup>2</sup>

- In 1998, FESA was established as the statutory authority responsible for fire in the State of Western Australia.
- Following two emergency services coronial investigations, the State Coroner concluded that the current fire control arrangements are inappropriate and increase the risk to life and property. The Coroner recommended the emergency services legislation be reviewed with a view to providing FESA with the power to take control of a bushfire in appropriate circumstances.
- The 2004 Auditor General's report into Western Australia's bushfire preparedness is critical of current arrangements in relation to state wide control of major fire incidents. The Auditor General believes that dispersing the authority to control bushfire across 124 organisations (local governments, CALM and FESA) poses inherent risks when multiple bushfires demand a coordinated response, or when major bushfires cross organisational boundaries.
- The COAG Report, *National Inquiry on Bushfire Mitigation and Management (2004)* stated that "regardless of the structures in place, there must be a single, unified command system for bushfire events and integrated operational planning and response." (Note that there is currently a single command system used in WA – the Australasian Inter-Service Incident Management System or AIIMS)
- It is clear that the "non-legislative" fire control arrangements negotiated by local government, FESA and CALM, and used to clarify the grey areas of the legislation, are extremely effective in some parts of the State. However, these arrangements:

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<sup>2</sup> Community Development and Justice Standing Committee (CDJSC) *Inquiry into Fire and Emergency Services Legislation* 2006 p116-117



- do not work in every instance;
  - leave liability issues unclear and uncertain;
  - are dependent upon “goodwill”; and
  - are dependent upon the personalities of the day.
- The number and size of housing developments abutting or located near DEC managed land has increased significantly since 1954 and continues to mount. FESA is the only agency which has significant capability for structural fire-fighting. Local Government volunteer fire and rescue brigades are also trained to deal with structural fires.

As a result, amendments to the *Bush Fires Act 1954* and the *Emergency Management Regulations 2006* are being drafted to provide legislative authority for FESA to take control of fire on local government or DEC managed lands when:

1. A bushfire has assumed or is likely to assume such proportions as to be incapable of control or suppression by the fire fighting authority or agency in whose area or locality it is burning; or
2. The prevailing conditions are conducive to the outbreak of a bushfire likely to assume such proportions; or
3. A bushfire is not being effectively controlled or suppressed by the fire fighting authority or authorities in whose area or locality it is burning; or
4. A fire requires or may require the coordination of resources

Once this amendment is passed into law, FESA will no longer need to rely on a Section 21 declaration by a Minister to assume control where an incident has escalated to a major incident. It is envisaged that FESA will take responsibility for the coordination of all response organisations involved in accordance with the needs of the situation.

### Procedural Issues

As part of the process to assume control, FESA must seek to consult with the Minister for Emergency Services, Minister for Environment and/or the Minister for Local Government, however must have consulted with at least one of the Ministers prior to the assumption of control.

Officers from DPC, FESA, DEC, State Solicitor’s Office and Parliamentary Counsel met on the 13 March 2009 and agreed that the State emergency management plan WESTPLAN - BUSHFIRE is the appropriate instrument to detail the procedures relating to the implementation of a declaration or a decision to take control.

The targeted timeframe to progress the critical amendments is 30 June 2009. Therefore, urgent drafting of a WESTPLAN to take account of the changes has commenced.

## **Recommendations / Notes**

The Review Committee recommends:

1. The prioritising of the critical amendments to the *Bush Fires Act 1954* recommended by the Community Development and Justice Standing Committee that relate to fire management, ie:
  - a. FESA's ability to assume control of a fire in specific circumstances
  - b. Amendments to the definition of property
  - c. Providing FESA with the authority to declare a total fire ban
2. The prioritisation, by the State Emergency Management Committee, of bushfire preparedness activities including updating WESTPLAN BUSHFIRE and coordinating bushfire exercises prior to the 2009/10 bushfire season.

The Review Committee notes that:

- If required, DPC will facilitate an officer level working group comprised of representatives from FESA, DEC, Local Government and other relevant agencies to finalise a draft of the WESTPLAN BUSHFIRE incorporating procedures relating to FESA taking control of a fire in specific circumstances.

## **Fires "in or near" DEC (Forest or Crown) Land**

As a general principle, it is clearly desirable that if a fire occurs and the responsible agency is not present, and another agency with the capability to respond to the fire is present, then that agency should have the necessary authority and statutory protection to respond until such time as the responsible agency is able to attend and take control.

Section 45 of the *Bush Fires Act 1954* currently provides DEC with the authority to take control of a bushfire when it is "in or near" DEC (Forest or Crown) land. However, the Act does not define "near". The CDJSC found that 'near' was confusing and that the number and size of housing developments abutting or located near CALM managed land has increased significantly since 1954 and continues to mount. FESA is the only agency with structural fire-fighting capability. As a consequence, the CDJSC recommended that the reference to DEC have the authority to take control of a bushfire 'near' DEC land should be deleted.

A new statutory provision is necessary which gives effect to the general principle outlined above while avoiding the problems and uncertainties the CDJSC identified as being associated with section 45 of the *Bush Fires Act 1954*. This would provide DEC, FESA or local government officers with the necessary authorisation and statutory protection to respond to a fire outside of their jurisdiction if required. This could be achieved through amending the *Bush Fires Act 1954*.

### **Recommendations / Notes**

The Review Committee recommends:

3. Further amendments to the *Bush Fires Act 1954* to provide fire response agencies with the necessary authorisation and statutory protection to respond to a fire on private property, or land that Local Government, Department of Environment and Conservation (DEC) or FESA is responsible for, until such time as the responsible agency is able to attend and take control. The amendments to be drafted, in conjunction with the urgent progression of critical amendments as agreed by Cabinet in November 2008.

### **Binding the Crown**

The CDJSC Report recommends that the new Emergency Services legislation bind the Crown. This means that the State would be required to comply with all the provisions of the legislation, including those relating to the mandatory creation of fire breaks. DEC and Main Roads WA are concerned that these requirements could impose unnecessary costs on State agencies.

The impact of this requirement is at least partially mitigated by recommendation 38 of the CDJSC Report, which states that the establishment of fire management plans would obviate the need for fire breaks in circumstances where it is financially or practically inappropriate to install a fire-break on the land, and where a fire management plan will mitigate the impact of a fire.

Careful consideration should be given to the appropriateness of the entirety of the proposed legislation binding the Crown. Each section of the new legislation needs to be carefully examined with a view to determining whether, from both legal and political perspectives, it is appropriate that the Crown be bound. These concerns can be addressed through consultation with the Parliamentary Counsel's Office during the Bill drafting process.

Officers from DPC, FESA, DEC, State Solicitor's Office and Parliamentary Counsel met on 13 March 2009 and agreed that to inform the drafting of the Emergency Services Bill it will be necessary for FESA to commence early discussion and consultation on the format of Fire Management Plans and to resolve issues regarding the scope of fire management plans and the authority and process for their approval.

Further, once an early draft of the Emergency Services Bill is completed by Parliamentary Counsel, DPC will organise meetings as appropriate between FESA, DEC and relevant agencies to facilitate the consultation and resolution of any specific concerns identified through the drafting process including the issue of binding the Crown.

## **Recommendations / Notes**

The Review Committee notes that:

- If required, DPC will facilitate meetings between FESA, DEC and other relevant agencies to resolve any specific concerns identified through the drafting process of the critical amendments, the Emergency Services Bill and the format of Fire Management Plans.

## **Hazard Management Agency**

As the *Emergency Management Act* prevails over the *Bush Fires Act 1954*, it is necessary to amend sections of the *Bush Fires Act* to ensure the powers available to FESA to assume control of a fire from Local Government or DEC under specified circumstances is not limited by, or incompatible with, the HMA powers prescribed under the *Emergency Management Act*. The powers or responsibilities for fire control are defined in the *Bush Fires Act*.

A HMA for bushfire has not yet been prescribed by regulation under the *Emergency Management Act*. The existing powers provided within the *Bush Fires Act* are deemed sufficient until the inconsistency is resolved which will occur with the amendments to the Act outlined above. The absence of a designated HMA impacts upon the ability to declare an Emergency Situation under the *Emergency Management Act* and subsequent use of powers under Part 6 of that Act.<sup>3</sup> Notwithstanding this, there are substantial powers contained within the *Bush Fires Act 1954* such as the ability for the Minister to declare a bushfire emergency period.

Once the amendments to the *Bush Fires Act* are enacted, 'bushfire' will be able to be prescribed as a hazard under the *Emergency Management Act* with FESA, DEC and the local government authorities being prescribed as the HMA for fire on their respective land.

- FESA will be the HMA for fire in gazetted fire districts.
- Local Government Authorities will be the HMA for fire within their respective Local government area but outside of the gazetted fire districts. Local Government will also be the HMA for fire on Unallocated Crown Land.
- DEC will be the HMA for fire when it is on DEC-managed land (outside a gazetted fire district).

Local Governments will be given the legislative option to handover their HMA role to FESA. This is consistent with the current arrangements under which 76 Local Governments have requested FESA to assume this responsibility. **Annex H** sets out an example of a Local Government Operational Response Agreement.

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<sup>3</sup> Part 6 Division 1 enables authorised officers to exercise a number of powers, including ordering road closures and evacuations, using and controlling any property, including vehicles, and breaking and entering into premises.

## ***Membership of the State Emergency Management Committee***

The membership of the State Emergency Management Committee (SEMC) is prescribed by legislation. Members of the SEMC are appointed by the Minister for Emergency Services (section 13 *Emergency Management Act 2005* and the *Emergency Management Regulations 2006*). Membership of SEMC is set out in **Annex A**.

It is DEC's view that the SEMC's capacity to discharge its responsibilities in relation to bushfire would be greatly enhanced if its membership were expanded to include DEC's Chief Executive Officer.

DEC has put forward a number of arguments in support of expanding the SEMC membership to include DEC's CEO, namely:

- DEC is the only state agency with direct links to the inter-agency management groups servicing the Ministerial Councils for Primary Industry and Natural Resource Management. As such DEC has direct input into and influence over national and Australian Government fire and land management policies and strategies.
- DEC has a large regionalised staff and equipment capacity capable of dealing and assisting with major incident management.
- DEC has a significant bushfire research program which is not replicated in any other organisation in WA.
- DEC is also a support agency for a number of hazards, including, Floods, Urban Fire, HAZMAT, Cyclone and Traffic.

DEC further notes that SEMC's capacity to implement some of the recommendations of this report, such as "SEMC continue to monitor effectiveness of arrangements for protection of essential services from bushfire", would benefit from DEC's membership on the Committee.

FESA has indicated its view that the current membership arrangements are appropriate, in particular because DEC is represented on the Emergency Services Sub-committee (ESS). The ESS is a Sub-committee of SEMC which provides HMA representation and has the key role of developing policies and emergency management protocols to assist HMA and Support Agencies to meet their emergency management responsibilities.

Given the profile and complexities of issues at the current time, the Department of the Premier and Cabinet supports the proposal to expand the SEMC membership to include DEC for at least 12 months or until the conclusion of the next bushfire season. This would mean that all three bushfire hazard management agencies (FESA, Local Government and DEC) are represented on SEMC during that period when a new Plan and procedures are considered and approved.

It is recommended that the Minister for Emergency Services consider the merits of expanding the membership to include DEC.

### **Recommendations / Notes**

The Review Committee recommends that:

4. the Minister for Emergency Services consider the appointment of the Chief Executive Officer, Department of Environment and Conservation as a member of the State Emergency Management Committee.

## **PRIORITY AREAS IDENTIFIED BY THE REVIEW COMMITTEE**

The Review Committee identified a number of priority areas under the emergency management elements of:

1. Prevention
2. Preparedness
3. Response
4. Recovery

Each element was reviewed in terms of legislation, policy, incident management, processes, information & communication technology (and research and development), resources & equipment and training.

### ***1 Prevention***

*The mitigation or prevention of the probability of the occurrence of, and the potential adverse effects of, an emergency*

#### **1.1 Prescribed burning**

Prescribed burning is the controlled application of fire under specified environmental conditions to a predetermined area and at the time, intensity, and rate of spread required to attain planned resource management objectives. It is undertaken in specified environmental conditions.

Current prescribed burning programs are based on a risk assessment process known as Bushfire Threat Analysis (used by both DEC and FESA). This has proved very effective in mitigating the impact of a large number of destructive bushfires throughout the past 48 years of prescribed burning in Western Australia and should continue.

There are a variety of practical and political challenges that an organisation conducting a prescribed burn needs to address:

- Prescribed burning can only be conducted under certain weather conditions. The appropriate combination of air temperature, relative humidity, wind speed and direction, and fuel moisture content must exist to conduct prescribed burning safely.
- Strategies for using planned fire must consider the relevant social, economic and environmental values. Consideration must be given to life and property protection, biodiversity, water, and economic values, tourism and carbon emission and other needs. Sometimes priorities given to these values within a community can create conflicts.
- Smoke from prescribed burns that drifts over populated areas can cause respiratory problems for some people and this needs to be a consideration during the planning and conduct of prescribed burns.

- Smoke from prescribed burning may affect industries such as grape growing.
- High fuel level areas require additional resources to complete burns which can only be conducted during a narrower range of prescribed conditions.

The Review Committee is of the view that notwithstanding existing environmental, economic and political complexities, the current approach to, and level of, prescribed burning undertaken by DEC in Western Australia's South-West provides an appropriate level of protection against the occurrence of major destructive fires in the State.

### **Recommendations / Notes**

- The Review Committee notes that:
  - a. Prescribed burning is an inherently complex and contentious issue because it impacts on a wide range of environmental and economic values.
  - b. There is general agreement that the current 200,000ha prescribed burning target in the South-West administered by DEC provides an appropriate level of protection against the risk of major destructive bush fires occurring on DEC managed land.

### **Responsibility for Prescribed Burning**

FESA is responsible for the management of fuel loads on behalf of the Department for Planning and Infrastructure on Unallocated Crown Land (UCL) and Unmanaged Reserves (UMR), within gazetted town sites throughout the State and in the metropolitan area.

Local government, via the *Bush Fires Act 1954*, is responsible for establishing minimum standards of fire prevention for all other non-government lands. Local government may direct a private property owner to conduct burning or other works as it deems appropriate to further reduce the fuel load. The local government approach to directing private property owners in such matters is ad hoc.

DEC is responsible for the management of fuel loads on DEC managed estate and non-Townsite UCL and UMR.

### **Capability Assessment**

DEC Policy on fire management including prescribed burning is set out in Policy Statement 19 (**Annex G**).

DEC has over 400 permanent incident management staff and about 300 front line fire fighters (of which approximately 100 are contracted on a seasonal basis) throughout the State who are trained and experienced in major bushfire control. These staff are responsible for carrying out much of DEC's prescribed burning regime. They do this with



the aid of DEC's specialist equipment, which includes a large fleet of fire tankers, light fire units, and heavy machinery.

### Governance/Coordination Processes

DEC consults widely on a rolling three year (six season) master burning plan to assess fuel reduction priorities. The consultation occurs at local level and then is managed at the 9 Regional levels (3 of which are in the south-west). This has been effective to date. DEC presents its indicative and annual and six season burn programs to local Chief Bush Fire Control Officers and/or Shire Bushfire Advisory Committees for comment at the start of each fire season and its indicative burn programs are publicly available from local offices and the DEC website.

FESA indicated at the Review Committee meetings that they have concern about the priority of prescribed burning programmes at a strategic level, particularly where communities and critical infrastructure may be under threat.

In addition to the regional level consultation, there would therefore be benefit in establishing strategic level discussions with DEC, FESA and local government on prescribed burning priorities prior to DEC approving the overall program for the land it manages.

Further there is merit in developing a State level Prescribed Burning Policy that sets out principles, aims and objectives for prescribed burning in Western Australia. This would provide the overarching guidance for the annual prescribed burning planning.

### **Recommendations / Notes**

The Review Committee notes that:

- FESA, DEC and Local Government will consult at the start of each fire season on fuel reduction priorities in high risk areas, prior to the respective agencies approving the overall annual master prescribed burning program.
- FESA, DEC and Local Government will prepare a state level strategic prescribed burning policy for consideration by Cabinet.

### Community views on prescribed burning

There are strongly held views in the community on the issue of prescribed burning. There is generally strong community support for DEC's burning program as a means of protecting community assets and natural values from wildfires. Since 1961 there have been relatively few major forest fires, and very few houses and lives lost.

Key arguments that have been put forward against current prescribed burning practices, predominantly by environmental non-government organisations, include that prescribed burning threatens biodiversity, is not effective in preventing bushfires, makes forests and bush more flammable, and increases greenhouse gas emissions, thereby contributing to climate change. There is also criticism of the annual target of 200,000

hectares per annum as promoting burning in less necessary areas to reach the target and complacency if the target has been reached.<sup>4</sup>

The Bushfire Front Inc, a group which describes itself as dedicated to best practice in bushfire management in Western Australia, wrote to the Premier in February 2009 raising four issues relating to perceived inadequacy of DEC's prescribed burning program in South West forests:

1. Bushfire management is not seen as a core function of DEC and there is not appropriately senior accountability for the program.
2. Overly bureaucratic processes and environmental constraints significantly hinder the program
3. Fear of criticism or legal action from smoke drift in urban and viticultural areas has resulted in burns not going ahead
4. There is no independent external monitoring or reporting on DEC's burning program

While the management of fire is often controversial and debate is polarised, it should be noted that DEC's fire management program is highly regarded, both nationally and internationally. The program of prescribed burning is an integral component of a wider fire management program designed to meet a number of objectives, including the protection and maintenance of biodiversity values while protecting community values and assets from the impact of destructive bushfires. DEC applies a high level of environmental diligence to the prescribed burning program which is managed as part of their integrated land management practice.

Prescribed burns that are aimed at providing protection to natural values and community assets are identified through a risk assessment model called the Bushfire Threat Analysis which considers four risk components: the location and fire vulnerability of the full range of values; the ignition potential; the fire behaviour potential; and the fire suppression capacity. Values such as rural and residential property, threatened ecological communities and species, recreation sites and plantations are given highest priority for protection measures including prescribed burning.

Amendments to the *Conservation and Land Management Act 1984* in November 2000 established the Conservation Commission. One of the Conservation Commission's roles is to conduct performance assessments for all DEC activities, including fire management, on DEC-managed lands. The Conservation Commission supports the use of prescribed burning as a biodiversity, silvicultural and fire management tool, complemented by other approaches such as planning controls. The Commission notes the importance of community consultation and public communication with a sound scientific basis to improve levels of community input and understanding of prescribed burning.<sup>5</sup>

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<sup>4</sup> Schultz, B. (Vice-president of the Conservation Council of WA) *Fire debate generates more heat than light*, the *West Australian*, 13 November 2008

<sup>5</sup> Conservation Commission of Western Australia, Submission to Environmental Protection Authority Review of the fire policies and management practices of the Department of Conservation and Land Management, 2004. <http://www.conservation.wa.gov.au/media/905/FireManagement.pdf> accessed 13 March 2009

The Review Committee notes that DEC will recommend that the Minister for Environment seek to progress amendments to the *Conservation and Land Management Act*, to provide for fire management (including prescribed burning) as a designated land management function under the Act. Ideally, these amendments to the *CALM Act* would be made in concert with the proposed amendments to the *Bush Fires Act 1954* and the *Emergency Management Regulations 2006* to prescribe HMAs. The amendments are not intended to replicate or supersede any provisions of the proposed Emergency Services Act.

#### Exposure of DEC to litigation

Under current law DEC has a duty as occupier of land to take all reasonable care to minimise or eliminate foreseeable risks of harm. DEC could be held liable for injury or loss caused by a fire that a departmental employee had negligently lit or negligently failed to control.

The Review Committee notes that DEC will recommend to the Minister for Environment to seek to extend immunity to the State for direct and/or vicarious liability arising from damage and negligence caused by the acts and omissions of DEC staff.

#### Constraint of air quality targets

To reduce the risk of smoke causing detrimental impacts on population centres and other sensitive areas, prescribed burns are managed through the application of smoke management guidelines. Potential impacts of smoke and ash on water catchments, road traffic, neighbours and visitors are all considered when planning and implementing prescribed burns.

There are currently 3 Supreme Court actions against DEC regarding the effect of smoke on vineyards and smoke management issues in relation to the Perth metropolitan area are well documented.

In accordance with section 14 of the *National Environment Protection Council (Western Australia) Act 1996*, the National Environment Protection (Ambient Air Quality) Measure (NEPM), allows up to five exceedances of a specific particulate matter measurement (PM10) per year. The DEC burning program has over the past decade operated with between zero and one exceedance per year for the Perth metropolitan area at all monitoring stations except South Lake, which recorded three exceedances in 2005 and two in 2002.

The Review Committee notes that DEC will recommend to the Minister for Environment that DEC be able to exercise greater flexibility in the application of smoke management guidelines and the risk of smoke haze over Perth to maximise the safe achievement of the annual prescribed burning program while staying within the existing NEPM limits.

## **Recommendations / Notes**

The Review Committee notes that:

- DEC will recommend that the Minister for Environment seek to:
  - a. progress proposed amendments to the *Conservation and Land Management Act 1984*, to provide for fire management (including prescribed burning) as a designated land management function under the Act, noting that the amendments are not intended to replicate or supersede any provisions of the proposed Emergency Services Act;
  - b. extend immunity to the State and the CALM Executive Body for direct and/or vicarious liability for death, injury, loss or damage caused by the tortious acts or omissions of DEC staff performing fire management functions (including prescribed burning);
  - c. exercise greater flexibility in the application of smoke management guidelines.

## **1.2 Power line maintenance**

By their very nature, electricity networks present inherent public safety risks from events such as storms, lightning strikes, acts of vandalism, vehicle accidents, plant failure and inadvertent contact with live electrical conductors.

In 2003, clashing conductors sparked a bushfire near Tenterden that claimed the lives of two women. The coronial inquest into the deaths raised a number of serious concerns relating to Western Power's performance. These concerns related primarily to deficiencies in Western Power's line maintenance practices that resulted in tensioning problems – which are a major factor in conductor clashes – going undetected. The Coroner's report was also critical of Western Power's incident reporting and data management systems. **Annex D** outlines Western Power's response to the Inquiry findings.

### **Clashing Conductors**

High voltage overhead power lines typically contain two or more wires. If the wires come into contact with each other, an electrical arc can develop near to, or at the point of, contact. This can result in molten hot globules of metal falling to earth, potentially igniting vegetation below.

Factors that contribute to conductor clashes include:

- Extreme weather conditions (particularly heat and strong winds)
- Long bay length - ie, the gap between power poles.
- Incorrect tensioning. If the earth wire is too tight, or the live conductor too loose, the proximity between the two wires will decrease, thus increasing the likelihood of a clash.

### Maintenance Issues

Western Power's network covers an area of 322,000 square kilometres and is one of the largest in the world. It traverses remote and high risk environments and, like most electricity utilities in Australia, much of Western Power's network was built many years ago, over a relatively short timeframe and to similar design and construction standards. This means that as specific asset-related risks emerge, they tend to affect large numbers of assets and be geographically widespread. This has been compounded by many years of under-investment in the maintenance and replacement of existing network assets.

As a consequence, Western Power is now faced with a number of asset related safety risks and significant backlogs of unsafe asset conditions, such as condemned poles and 'long bays'. Given current resourcing levels, it is not possible to rectify all of these risks easily or quickly. Remedial programs that can be delivered with available funds and resources often extend over many years.

To ensure that the most critical problems are addressed first, Western Power uses extensive risk based prioritisation within and across these remedial programs. However, regardless of the effectiveness of the risk assessment criteria, the potential always exists for an incident to occur.

### Resource requirements

Western Power plans to spend \$280 million on bushfire mitigation strategies over the next three years aimed at reducing the likelihood of Western Power equipment starting a fire. This figure represents a significant advance on the \$123 million that was allocated for bushfire mitigation in the current three-year cycle. The money would be invested in projects aimed at reducing the likelihood of Western Power equipment starting a fire. Some examples include:

- Vegetation management (approx \$33m)
- Bushfire mitigation (wires down project – \$45m)
- Pole top replacement in high fire risk areas (\$26 m)
- Covered conductor in the Hills area (\$15m)
- Clearing at the base of fuse poles (\$10m)
- Silicon coating pole top equipment (\$12m)
- Fire safe fuse (\$14m)
- Conductor clashing mitigation programs (\$31m)
- Low voltage powerline spreaders (\$8m)
- Wildlife proofing (\$4m)

The funding is subject to an increase in network tariffs to be approved by the Economic Regulatory Authority (ERA) as part of the review of Western Power's access arrangement. At the start of the review process, the ERA was intending to make a final decision in May 2009, to allow the new network tariffs to be introduced from 1 July 2009. However, the assessment process has been delayed somewhat and Western Power is likely to receive a final decision sometime during the third quarter of 2009.

## **Recommendations / Notes**

The Review Committee notes that:

- The Economic Regulation Authority (ERA) is currently reviewing Western Power's access arrangement and associated network tariffs. If the ERA deems the expenditure is prudent and efficient then Western Power will invest the funds over the next three years in projects and mitigation strategies aimed at reducing the likelihood of Western Power equipment starting a fire.

### **Maintenance backlog – pole inspections**

Western Power's asset management system is reporting a total of 13,504 (2.18%) distribution poles outside of their inspection timescale period from a total pole population of 618,777 poles.

As at January 2009, Western Power has inspected 129,000 poles against the financial year target of 200,000. A total of approximately 160,000 poles will be inspected in the 2009/10 financial year of which the remaining backlog of poles (13,504) that have yet to be inspected within the 4 year period will be completed in the first half of the financial year.

### **Maintenance backlog - pole replacement**

The pole replacement programme is an annual capital program that achieved the replacement of 5,100 poles in the financial year 2007/08. For the 2008/09 financial year, the target is 7000 poles, which Western Power is currently on track to achieve.

Western Power inspects the integrity of its overhead lines on a 4 yearly cycle. Part of this inspection is a physical test of the pole to ascertain its condition. Currently, the test method used is a dig and drill "good wood test", though two other methods are currently under appraisal. Depending upon the results of the condition assessment, the pole is given a 'Severity Rating'. The 'Severity Rating' provides an order and an advisory timescale for the corrective action.

The current condemned pole backlog is recorded as being 4,554 distribution poles.

The replacement of distribution poles will be a significant ongoing requirement for the business and Western Power has requested significantly increased funding to match the anticipated pole replacement volumes in its Access Arrangement 2.

### **Vegetation**

Left unattended, vegetation in the vicinity of power lines can pose a significant bushfire threat. Under the existing legislative arrangements, responsibility for clearing land around power lines lies with landowners. However, Western Power has agreed to adopt the Department of Commerce "Guidelines for the management of vegetation near power lines", which confers responsibility for the removal of naturally occurring vegetation onto Western Power.

### Responsibility for clearing of land

Western Power is responsible for managing the clearing of vegetation in close proximity to its assets if it is deemed a risk to public safety or to network reliability. However, there are circumstances where the ownership of the vegetation is not clear. Often these circumstances relate to disputes over whether the vegetation is naturally occurring or cultivated, particularly near road reserves.

The Review Committee notes that Western Power has formed a Vegetation Near Power Lines Committee comprising local governments, the Office of Energy Safety and other stakeholders in the vegetation management industry to address these issues.

This Committee has met three times and are currently overseeing the development of a Code of Practice and Guidelines, training and an MOU.

#### **Recommendations / Notes**

The Review Committee notes that:

- Western Power has formed a Vegetation Near Power Lines Committee comprising local governments, the Office of Energy Safety and other stakeholders in the vegetation management industry to address risk of vegetation below power lines.

## **1.3 Land use planning policies – declaration of bushfire prone areas**

### National Standards

The Building Code of Australia (BCA) recognises that houses located near bushland require additional protection from flame contact, radiant heat and ember attack. The BCA references an Australian Standard (AS 3959-1999) – ‘Construction of Buildings in Bushfire Prone Areas’, which requires all residential buildings in areas designated as bushfire prone to be assessed against this standard. Additional bushfire protection measures will be mandated where appropriate.

The standard has recently been reviewed and an updated version (AS 3959-2009) was published on 10 March 2009. This standard notes that there is contention around the issue of construction in the highest risk areas, as evidenced by the statement that:

*"Whilst the majority of the Committee support the full Standard, unanimity was not reached on aspects related to BAL-FZ, Flame Zone. The Committee will be asked to review this Standard, including Flame Zone construction, in light of relevant outcomes of the Victorian Royal Commission into the February 2009 bushfires."*

### Declaration of Bushfire Prone Areas

In Western Australia, it is currently up to individual local governments, not FESA, to designate bushfire prone areas. There are currently less than 10 specific localities

designated as bushfire prone where AS 3959–1999 construction standard assessments are completed.

In 2004, the Department of Housing and Works facilitated extensive consultation with all stakeholders to implement a more consistent application of the designation of bushfire prone areas. The proposals were not progressed because the building industry objected to the additional costs and the necessity to complete individual assessments. The additional construction costs of complying with the AS 3959-1999 requirements for a typical 200sqm house were estimated as:

- Low fire attack category: Nil (as no construction requirement);
- Medium fire attack category: a 3 to 5% increase on the average construction cost;
- High fire attack category: a 6 to 8% increase on the average construction cost; and
- Extreme fire attack category<sup>6</sup>: an 8 to 10% increase on the average cost.

The Western Australian Planning Commission is responsible for land use planning and regulation. Issues relating to the role of land use planning in Western Australia as it relates to natural hazard (including bushfire) mitigation are being progressed through the Land Use Planning Working Group established by the State Mitigation Committee of the State Emergency Management Committee.

### Reform Proposals

With increasing residential development in locations adjacent to bushland areas combined with higher temperatures predicted in the future due to climate change, the need for uniform application of these increased construction standards in new developments in the State's high bushfire risk areas should be considered. The low number of bushfire prone area declarations made to date indicates that the current system has not been effective and is unlikely to achieve a consistent State-wide approach based on risk. The need for the State Government to adopt a more directive role in designating bushfire prone areas needs to be strongly considered.

FESA recommends the whole of the State should be declared as Bushfire Prone. This may be considered excessive; however, the bushfire prone standard would only impact in areas of the State which have a bushfire risk. Those locations with no potential exposure to bushfire risk would be rated low and buildings would not require any additional bushfire protection measures. This option would require the developer to complete an assessment of potential for bushfire attack for every building. Even the metropolitan area has a number of suburbs at risk where they are adjacent to natural bushland.

Extensive consultation will be required to progress this issue and to develop assessment and audit processes. Local government have cited potential for increased

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<sup>6</sup> FESA strongly advocates no construction in the 'Extreme' category. It should be noted that within this 'extreme' category could be significant areas within the Perth Hills, the Leeuwin-Naturaliste ridge, south coast and west coast communities.



liabilities, lowering property prices, insurance issues and potential developers viewing the imposition of additional construction standards as a disincentive to invest.

It is not considered feasible to make AS 3959-1999 retrospective on existing buildings in high bushfire risk areas. FESA will need to work collaboratively with local government and communities to identify treatment options for existing buildings in areas likely to be impacted by bushfire.

### Legislative Issues

Existing legislation would need to be amended to enable the whole state to be declared bushfire prone.

### **Recommendations / Notes**

Review Committee recommends that:

5. FESA assess the cost and other implications of proposed changes to bushfire prone zone declarations which would allow the whole State to be declared bushfire prone.

The Review Committee notes that:

- Issues relating to land use planning in Western Australia as it relates to natural hazard mitigation (including bushfire) continue to be progressed through the State Mitigation Committee's Land Use Planning Working Group reporting to SEMC by December 2009.

## **1.4 Adequacy of preventative measures and penalties for arson**

### Incidence of Pyromania

Worldwide data has examined the psychopathologic influence on firesetters. In a study of 283 arsonists, mostly sourced through FBI files, Ritchie and Huff (1999) found 90% had recorded mental health histories of which 36% had a major mental illness of schizophrenia or bipolar disorder. *Only three of the 283 arsonists (1%) were diagnosed with pyromania.* Similar results were obtained by examining arsonists who appeared in a NSW court charged with arson or starting a bushfire over a 5-yr period.

The incidence of diagnosed pyromaniacs in Australia is less than one percent, as detection of cases is possible only through self-identification or offence detection by appropriate law enforcement authorities. WA Mental Health Services and WA State Forensic Mental Health Services lack appropriate data, specific capability and treatment programs for arsonists/pyromaniacs.

Dismissing all firesetters as pyromaniacs can discourage efforts towards applying the right intervention programs for arson offenders. Unlike true pyromaniacs, most arsonists are in control of the decision to light a fire and, with the right influences, can decide not to. The aetiology of arsonists is multi-factorial and psychiatric illness is just one of those

factors. Hence, it is impossible to definitively determine what percentage of psychiatric illness is directly responsible for arson.

### **Recommendations / Notes**

The Review Committee notes:

- The Department of Health will inquire whether further research is required into the need for dedicated arson treatment programs through the National Health and Medical Research Council or through academic programs, such as the Victorian Institute of Forensic Mental Health.

### **Arson Reduction Strategy**

FESA's Fire Investigation and Analysis Unit, DEC's Fire Management Services Branch and the Police Arson Squad have an extremely close working relationship based on information sharing and actively encouraging fire-fighters and the community to report information on deliberately lit fires. Agencies consider this strategy to be highly effective with numerous persons being charged with arson offences. As a result of this, Western Australia's arson clearance rate leads the nation.

A number of locations around the metropolitan region have been identified as arson 'Hot Spots'. In the summer of 2008/09, these areas were the subject of targeted arson reduction programs involving key stakeholders such as local police, fire-fighters, local government and, where appropriate, indigenous leaders. Some of these locations include Perth hills, Kings Park, Munster, Seville Grove (Armadale), Beeliar and Greenfields (Mandurah).

These activities typically involve a dedicated local media focus, signs encouraging community information at past fires, and an increased local presence of police, and fire and local government security patrols. The recent Australian Institute of Criminology report, 'Using crime prevention to reduce deliberate bushfires in Australia', highlighted this strategy and cited it as a potential model for other jurisdictions to follow.

### **Juvenile Arsonist Treatment Program**

FESA conducts the JAFFA (Juvenile and Family Fire Awareness) Program for children aged 4 – 16 yrs. The program is designed along the principles of secondary crime prevention and targets young people who have demonstrated they are at risk of more serious offending by their inappropriate use of fire.

The program is operated by specially trained FESA fire personnel and involves a combination of education and cognitive behaviour therapy. Sessions are conducted in the juvenile's home and engage both the juvenile and his or her parents/guardians. Although a home-grown program, JAFFA is broadly similar to programs run in other jurisdictions. In 2003 the program was revised to reflect information gathered on trips to the USA.

FESA currently has a total of 23 JAFFA Support Officers trained and operating within the State. Of these 14 are within the metropolitan region with three located in the Pilbara, one in the Mid West Gascoyne, two in the Midlands Goldfield region, two in the Southwest and one in the Kimberley. Over the last six months FESA has had over 40 referrals into this program.

The Adult Burn Injury Unit also supports an education program for 'fire lighters' who are not eligible for the JAFFA Program. The program is conducted in the Burns Injury Unit at Royal Perth Hospital where program participants are given information on the consequences for people with burn injury and targets the 10-17 years age group. The program is also conducted in schools.

### Treatment for Adult Arsonists

Arsonists are detected in the forensic mental health services, but usually in association with a major mental health illness. Similarly, referrals are also received from courts for assessment of psychotic people who have committed arson. The reason for referral is more focused on their mental health illness and not specifically on arsonist behaviour. This is broadly consistent with the approach in other states.

### Appropriateness of Existing Arrangements

Given the extremely low figures of diagnosed "pyromaniacs", the WA Mental Health Service and the State Forensic Mental Health Service is presently appropriately equipped and staffed to treat known arson offenders, within the realm of currently existing resources and without specialist programs.

There needs to be further research of arson offenders, looking at those both with and without mental health illness, before the further feasibility and benefits of dedicated arsonist treatment programs can be established. One specific sub-group of these offenders, volunteer fire-fighters, needs to be further researched and strategies developed, such as induction psychological screening, to further reduce offences, if this group is identified to be of significant concern.

### Penalties

Amendments have been agreed by Government to the definition of property in the Bush Fires Act 1954 to include in that definition direct reference to Crown land and the flora and fauna on that land. This is likely to make it easier to prosecute a person for wilfully damaging property even where no 'property' (that which someone owns) is damaged.

The *Bush Fires Act* and the Criminal Code both create offences relating to arson. Section 32 of the *Bush Fires Act* states that a person who lights or attempts to light a fire in circumstances likely to cause injury or damage to a person or property is guilty of a crime and is liable for a \$250,000 fine, 14 years imprisonment, or both. Section 444 of the Criminal Code holds that a person who wilfully and unlawfully destroys any property by fire is guilty of a crime and is liable for 14 years imprisonment.

Under these provisions, liability for damage or injury caused by a deliberately lit fire is confined to instances where the resulting damage or injury is 'likely' or wilful. The existence of these fault elements makes it more difficult to hold arsonists accountable

for the consequences of their unlawful actions. This problem was illustrated when, in 1995, an arsonist responsible for a factory fire avoided liability for an injury a fire-fighter suffered while combating the blaze.

One option for reform is the creation of a new offence modelled on the 'Unlawful Assault Causing Death' provision of the Criminal Code. Under this provision, a person who commits an unlawful assault that directly or indirectly results in death is liable for 10 years imprisonment, regardless of whether the death was intended or reasonably foreseeable. A similar offence dealing with damage, injury or death caused by arson would ensure that arsonists can be held responsible for all consequences arising from their criminal behaviour.

### **Recommendations / Notes**

The Review Committee recommends that:

6. The Department of the Attorney General, in consultation with FESA and WAPOL, consider options for legislative amendments to extend criminal liability to all damage, injury or death directly caused by arson.

## **1.5 Science and Research**

### **Current Research Activities**

DEC has benefited from a comprehensive research program over 50 years that has included bushfire behaviour, prescribed burning guides, fire ecology, fire information and decision support systems. For example, DEC in collaboration with the CSIRO developed the national forest fire behaviour prediction system under the Project Vesta study.

Since 2001 FESA has undertaken bushfire research focussed on community protection, measures to enhance community engagement in embracing fire preparedness and understanding arson trends.

Having this research experience and competence has been a critical factor in Western Australia being at the forefront of bushfire management and prescribed burning within both Australia and internationally.

Fire management practices and public information programs are shaped by experience and evidence based research. FESA and DEC are research partners in the national Bushfire Cooperative Research Centre (CRC) which was established in 2003 following a range of significant fires across Australia. This research has provided valuable knowledge to guide operational practices and policy for bushfire management.

The Bushfire CRC is scheduled to conclude in 2010 and is now heavily involved in working with agencies promoting adoption of the research. There is general agreement within the emergency management industry that the Bushfire CRC has been integral to increasing the knowledge required to meet the increasing challenges in bushfire management.

### Proposed Fire and Society CRC

To build upon the achievements of the Bushfire CRC, the Australasian Fire and Emergency Service Authorities Council (AFAC) has assembled a consortium of research institutions and end users to pool funds and resources to continue research to support effective emergency management service delivery. Titled *Fire and Society*, this proposed CRC research program will focus on providing the knowledge base and tools to underpin the evolution of the emergency services sector to meet the challenges of the future in a sustainable manner. While bushfire research remains the central focus, the proposed *Fire and Society CRC* will also include research into broader emergency management subjects.

The proposed CRC is comprised of four interrelated themes:

- Risk Assessment;
- Living with the Threat of Fire;
- Sustainable Ecosystems; and
- People, Systems and Technologies

These themes will be supported by two cross-cutting activities: Education and Research Utilisation. It is anticipated if Commonwealth funding is provided, the total combined research funding will be in the vicinity of \$50-60M across an eight year lifecycle.

FESA and DEC are key partners in the proposed *Fire and Society CRC* research having committed to cash and in-kind contributions which are to be sustained throughout the program. FESA is also associated with the National Climate Change Adaptation Research Facility (NCCARF) Disaster Management and Emergency Services node.

### Capability assessment

With bushfire and emergency management in general facing challenges from our changing climate, demographic change and managing increasing risks from natural and human kind hazards, an ongoing research program to provide knowledge to reduce the uncertainties of the future is essential.

There is a continuing need for further research into smoke management associated with fuel reduction burns to alleviate the threat of damage caused by smoke on air quality and on wine grapes.

Additional research is required in the areas of fire ecology, fire behaviour in shrub-lands and rangelands vegetation and improved remote sensing technology.

## **Recommendations / Notes**

The Review Committee notes that:

- DEC and FESA will collaborate to define bushfire research priorities to maximise the application and sharing of research findings in all bushfire management applications.
- DEC and FESA will analyse and provide further advice to the Minister for Environment on maintaining (or enhancing) the current level of “within Government” fire research capacity in Western Australia.

## ***2. Preparedness***

*Preparation for response to an emergency*

### **2.1 Public awareness – “Prepare to Stay and Defend or Leave Early” strategy**

There are a significant number of bushfire public awareness activities being undertaken by FESA, DEC and WAPOL. **Annex I** provides a summary of current programmes.

In the light of the Victorian fires there has been considerable interest in the appropriateness of the ‘Prepare to Stay and Defend or Leave Early’ strategy.

This strategy is the central element of Australia’s community safety during bushfires and is based on research, experience and history. All residents in bushfire risk areas are encouraged to prepare their properties. Well before the fire arrives, residents should have made a decision to either stay and defend their property, taking refuge in their house when conditions become unbearable, or alternatively leave the area well before the fire. Evidence from numerous significant fires has clearly indicated that people who leave a fire area too late face a high risk of death or serious injury. Sadly, this appears to be the case with many of the deaths in the Victorian fires.

Following the Victorian bushfires there has been a significant increase in community concern at the bushfire risk facing Western Australia. A number of public meetings in high bushfire risk areas across the State have been held since the Victorian fires and FESA has reaffirmed the “Prepare to Stay and Defend or Leave Early” messages.

In particular, an emphasis has been placed on residents physically preparing their property for potential bushfire impact along with their emotional preparedness for the challenges they could face during the passage of the fire. Emphasis has also been placed on the need for those that choose to leave to do so well before the fire arrives.

#### **Further Research**

The Bushfire Cooperative Research Centre is collecting data with a view to analysing the actions of residents in fire affected areas. This information will provide further insight into the efficacy of the “Prepare to Stay and Defend or Leave Early” strategy, and enable FESA to assess the appropriateness of their community information practices.

#### **Refinement of “Prepare to Stay and Defend or Leave Early” strategy – Extreme Conditions**

Currently, the highest rating for fire danger is extreme. The ratings from the recent Victorian fires indicated that the fire danger exceeded the threshold for an ‘Extreme’ rating by five or six times. In light of this, it has been suggested that there is scope for a fire danger level beyond extreme and that policies should be amended accordingly.

The fire intensity experienced in some areas of the Victorian fires was among the most severe ever seen in Australia. As a means of comparison, fire danger is measured as an index (Fire Danger Index – FDI), which combines predicted wind speed, relative

humidity, ambient temperature and dryness of the fuel. An FDI measurement of 50 is classified as Extreme and fires in these weather conditions are classified as difficult to manage and contain. Fire burning on days with an FDI of 100 (still classified as Extreme) are characterised as virtually uncontrollable if they are not extinguished quickly.

The highest recorded FDI in Western Australia was at Esperance in January 1994, when the index reached 186. The FDI at the peak of the recent Victorian fires was estimated to be over 300. There is a strong correlation between instances of 'Elevated Extreme' FDI and the destruction of life and property resulting from bushfires.

#### *Relationship to "Prepare to Stay and Defend or Leave Early" Strategy*

There is broad consensus that the "Prepare to Stay and Defend or Leave Early" strategy is an effective tool in the vast majority of bushfires. In normal bushfire events, properly prepared houses can provide a safe refuge from those who elect to stay and defend their property. However, the ability of houses to provide occupant protection in high risk locations during 'Elevated Extreme' FDI conditions is being actively reviewed by FESA.

A decision making tool to identify areas where there is increased chance of property loss during a fire in these 'Super Extreme' FDI conditions is now being developed. Housing areas within 100 metres of forest/woodland/tall shrubs with fuel loads greater than 8 tonnes/ha are at greatest risk from radiant heat or direct flame contact.

In areas more than 100 metres from these hazards, the threat will come from ember attack and residents should be encouraged to stay and defend their prepared property. Evidence suggests houses in grassland areas would not be subjected to fires of the same intensity and protection thresholds can still be maintained by residents psychologically ready to remain and protect their prepared property.

In the event of bushfire, this model could be applied for all days when the FDI predicted by the Bureau of Meteorology is above a designated level (initially thought to be 80+). Inputs being considered for the model will include fuel load data, vegetation type, distance of buildings from vegetation, slope, accessibility of buildings, time of day and spotting potential. This analysis would be used to assess locations of potential severe impact where resident re-location would be the best option to guarantee community safety.

It should also be noted this compulsory re-location would have management complications and require designation of local safe refuge areas.



## **Recommendations / Notes**

The Review Committee notes that:

- FESA, DEC and the Bureau of Meteorology will prepare a joint report for SEMC on decision making tools to identify areas at risk during 'elevated extreme' FDI conditions' prior to 1 October 2009.
- FESA will give consideration to the outcomes of the Victorian Bushfire Royal Commission, in particular, the extent to which any change is required to the "Prepare to Stay and Defend or Leave Early" strategy and will report the findings to SEMC.

## **2.2 Protection of Essential Services**

### **Capability Assessment**

Support infrastructure for essential services, such as powerlines, pipelines, dams and pumping stations, may be vulnerable to bushfire.

Local Emergency Management Committees are required by SEMC to identify the risks that may occur in a local government district. These risks are identified through an emergency risk management process that is supported by guidelines published by FESA. The emergency risk management process should identify essential services for the local government district and access to vulnerability of those services to bushfire, and then identify relevant treatment options to mitigate the risk.

Similarly, all public sector bodies must practise risk management, regularly undertake a structured assessment process to identify the risks facing their organisations, be able to demonstrate the management of those risks, and where appropriate, have continuity plans to ensure they can respond to and recover from any business disruption. Details of the policy, assessment process and continuity plan must be submitted to RiskCover and must be maintained and reviewed on a regular basis.

Western Power has developed a comprehensive *Bushfire Management Plan* as bushland on private property or public reserves can contain fuel loads that increase the potential of bushfires to impact on Western Power assets. Western Power currently sponsors FESA's existing fuel reduction programme in the Perth Hills and supports expanding these fuel-reduction programmes to limit the spread and intensity of future bushfires.

Water Corporation also undertakes detailed preparation for seasonal emergencies, including bushfires, at both the district and strategic levels and has specific plans for major assets identified as 'at risk'. While pipelines are generally resilient in bushfire incidents, pump stations, tanks, critical valves, telemetry facilities and chemical storage can be at risk. 'Environmental' restrictions and local government by-laws can prevent the development and maintenance of appropriate *asset protection zones* in accordance with AS3959 around some of these facilities. The proactive warning of an impending emergency is also often an issue.

Local governments (through State Emergency Management Policy 25 “Emergency Management in local Government Districts”), and State public sector agencies through Premier’s Circular 2006/03) are required to undertake a risk assessment process that deals with risks affecting essential services. The Western Australian Emergency Risk Management Guide – July 2005 published by FESA provides guidance for this process. SEMC can monitor the local government process through the annual reports of Local Government Management Committees

### 2.3 Local Government Requirements

The *Emergency Management Act 2005* places considerable emergency management responsibilities on local government. Under the Act, local governments are required to:

- ensure effective local emergency management arrangements are prepared and maintained – including, implementing policies for emergency management; the roles and responsibilities of public authorities and other persons in emergency management and a recovery plan and the nomination of a local recovery co-ordinator;
- manage recovery following an emergency affecting the community in their district; and
- establish one or more local emergency management committees.

WALGA contends that this legislation means that local governments can no longer make their own judgements concerning the level of support and involvement with emergency management in their communities and adds considerable cost (estimated in 2006 at \$7.2M) and complexity to the tasks of local government. The Act also provides a new role for local government in providing emergency management functions on Crown Land including 236 remote indigenous communities.

Under the *Bush Fires Act 1954*, local government volunteer Bush Fire Brigades are responsible for extinguishing bushfires outside gazetted fire districts. This represents the majority of land in Western Australia including unallocated Crown land, Crown reserves, pastoral leases and private property. FESA works cooperatively with local governments, providing support on technical and operational matters, and delivering training of volunteers. From 113 with bushfire responsibilities, there are presently 76 local governments who have initiated formal handover agreements for FESA to take control of bushfires occurring in their district.

For the past two years WALGA has, as part of its budget submission requested a one off capital funding injection of \$11 million over four years to accelerate the replacement of current local government volunteer infrastructure and to provide additional resources in the most critical high risk locations. Details of the funding submission are at **Annex J**.

### Capability assessment

The expanse of Western Australia makes the transport of fire fighting resources costly and time consuming. This can also result in losing the effective opportunity to control bushfire at the earliest opportunity and hence minimise damage costs to the community. Consequently there is a need to be able to maintain critical emergency management capacity in high risk regional locations.

To meet new legislative requirements local governments require training and planning support and funding assistance to employ staff and to develop plans.

### Legislation and governance

WALGA reports that numerous Local Governments are finding it impossible to devote appropriate staff and resources to the emergency management responsibilities required under the *Emergency Management Act 2005* at the same time as delivering their current services and meeting existing regulatory conditions.

Stakeholder feedback to WALGA indicates that the network of seven Community Emergency Management Officers (CEMOs), established jointly by FESA to assist Local Governments to develop Bushfire Response plans, has provided a good foundation to build capacity within Local Government for planning and implementing the *Emergency Management Act* requirements. The initial focus of the CEMO's is to ensure fire management plans are in place. The overall role is to work with Local Governments on PPRR arrangements. FESA is now expanding this programme by the appointment of Community Fire Managers, co-funded with Local Government, with similar roles to CEMOs with additional incident command responsibilities.

### Equipment and Facilities

The 2006 report by the Community Development and Justice Standing Committee highlighted many needs and areas of improvement in local government's capacity to reduce injury and damage during bushfire and other emergencies.

The Emergency Services Levy provided \$13m in 2007/08 to equip and train volunteer fire fighters in Western Australia. However, given the age of equipment and growth in Western Australia there is a serious need for capital funding to accelerate replacement of the very oldest volunteer Bush Fire Brigade fleet (as at November 2007 97 appliances were over-age), provide additional tankers, build 17 new stations in high risk locations, and establish brigades in high risk remote indigenous communities. The cost is estimated at \$11.25 million over 4 years.

The COAG consideration of Australia's natural disaster arrangements is likely to be an opportunity to pursue Bush Fire Brigade funding requirements.

### **Recommendation / Notes**

The Review Committee notes:

- That in the context of the proposed COAG consideration of Australia's natural disaster arrangements (expected to report by the third quarter meeting 2009), opportunities to raise Bush Fire Brigade funding be pursued.

### **3. Response**

*The combating of the effects of an emergency, provision of emergency assistance for casualties, reduction of further damage, and help to speed recovery.*

#### **3.1 Australasian Interagency Incident Management System**

The adoption of the Australasian Interagency Incident Management System (AIIMS) by lead emergency response agencies contributes to a cohesive planning and response mechanism. AIIMS is now well embedded across brigades and emergency services.

Discussions have also commenced with the Defence Reserve about the provision of AIIMS training for Defence Reservists to improve integration between FESA, DEC, Bush Fire Brigades and Reservists in the event they are called out under these arrangements. Defence Reservists are made available by the Department of Defence under formal, well established arrangements for the provision of Defence assistance to the State if requested in an emergency.

FESA has developed a high level incident managers course with the support of WAPOL and is inviting all agencies to attend. Funding of the course will assist with an accelerated acceptance and training of other agency staff such as DEC, Health and local Government.

#### **3.2 Bureau of Meteorology advice to response agencies**

Bureau of Meteorology (BoM) forecasts provide essential data in support of bushfire incident management. Effective use of this intelligence requires the most effective interpretation of BoM forecasts by fire agencies. Enhanced interpretative services between BoM and agencies would ensure that the best possible intelligence supports response efforts.

It should be noted that the BoM has been reviewing its services to fire agencies nationally and is developing a proposal to seek State support for the provision of fuel reduction forecasting services at the level required by State agencies.

##### Capability assessment

This enhanced interpretative service is beyond that able to be provided by the Bureau and would significantly enhance bushfire incident management as well as enhancing the effectiveness of fuel reduction burning programs. Such a service could entail a BoM data expert being based in either DEC or FESA during the bushfire season along similar lines to what occurs in Victoria, where the fire agencies fund the provision of a forecaster to provide an interpretative service to incident managers

### **Recommendations / Notes**

The Review Committee notes that:

- FESA and DEC will consider options and funding issues for the provision of BoM forecasters to ensure more effective interpretation of BoM forecasts by fire agencies and report to their Ministers before 1 October 2009.

## **3.3 Information, Communications and Technology**

### **Crisis Information Management System**

A Crisis Information Management System (CIMS) is primarily a strategic information sharing platform operating in the multi agency environment which allows the Hazard Management Agency and Combat and Support Agencies to share critical information at the strategic level.

SEMC has endorsed the concept that agencies adopt a common State Crisis Information Management System (CIMS) and that WebEOC is the preferred system. Agencies that have a requirement for an agency specific system can choose to purchase, develop and manage their own system ensuring that there is interoperability with WebEOC.

Agencies if they wish, can use it as their internal operational management system (as WAPOL are doing), however is not intended to compel agencies to use WebEOC as their internal information management system, nor for it to be migrated down to the tactical level.

### **Radio Communications Interoperability**

Two major recent initiatives have sought to enhance the quality and interoperability of emergency services communications. FESA is in the process of implementing the WA Emergency Radio Network (WAERN) which is using innovative dual-band analogue radios. Concurrently, FESA is using Commonwealth funding through the *Emergency Connect WA* project to implement Radio Over Internet Protocol technology to provide better internal radio communications which, in the long term, should enhance interoperability with DEC, WAPOL and other emergency service organisations, particularly in regional areas. WAPOL has meanwhile completed the rollout of the digital Police Metropolitan Radio Network (PMRN) and are currently extending the same technology into regional Western Australia.

### **Emergency Services Communications Strategy for Western Australia**

The WAERN and PMRN projects have significantly improved emergency services communications, however, they do not in themselves provide a whole-of-sector strategic, long-term direction for emergency services communications. The Public Sector Commission, working with emergency services agencies, has developed an Emergency Services Communications Strategy for Western Australia (ESCS), which

seeks to set the future direction for the effective management and use of information and communications technology to support integrated service delivery across emergency services organisations.

Under the approach taken in the ESCS, agencies would continue to manage and upgrade their own networks, but align their planning and implementation with the strategy. This will promote collaborative solutions and improved interoperability and information sharing between emergency services agencies. An Emergency Services Communications Strategy Committee, consisting of the CEOs of the key emergency services organisations, is proposed to oversee implementation of the ESCS.

The Review Committee notes that the ESCS, which has the endorsement of emergency services agencies, will be submitted in the near future to Cabinet.

### Capability Assessment

It is desirable that there is agreement on the communications equipment and systems compatibility and standards used by agencies, however, the SEMC resolution on the State CIMS has not yet been implemented by all agencies. FESA and DEC have their own operational management systems. Using WebEOC or compatible systems as their CIMS would allow information sharing at the strategic level between these two key agencies.

#### **Recommendations / Notes**

The Review Committee notes that:

- SEMC will oversee implementation of its resolution regarding adoption of an interoperable crisis information system as a priority before 1 October 2009.
- The Emergency Services Communications Strategy, which has the endorsement of emergency services agencies, will be submitted in the near future to Cabinet.

### **3.4 State Alert**

The ability to deliver potentially life-saving information to a community under threat in an emergency is a valuable tool for emergency service organisations.

FESA and WAPOL have been working with a number of agencies in developing a new system for sending warnings and alerts direct to affected communities to warn of imminent danger as a result of an emergency. Known as StateAlert, the system is capable of sending voice and/or SMS messages via landline and mobile telephones, email, fax and RSS news feed subscriptions.

StateAlert is one of suite of public information tools that include website information, recorded information lines, call centres, emergency broadcasts on ABC local radio and media.

WESTPLAN - PUBLIC INFORMATION provides the framework for Hazard Management Agencies in the provision of public information and outlines their roles and responsibilities. The Plan also details additional resources that would be made available during a large scale or protracted event. These include a call centre, media monitoring services, access to additional media or public affairs staff and overall coordination of the public information response at a State level where required.

### Legislation

To enable the development of telephone-based emergency warning capability, the Commonwealth indicated that it would pursue legislative amendments to the *Telecommunications Act 1997* in order to enable emergency warnings to be deemed a permitted use of the Integrated Public Number Database (IPND). Legislation is required to impose appropriate ongoing controls against potential misuse of sensitive personal information taken from the IPND and to protect the integrity of the data and the telecommunications network. Policy agreement has been reached on the model for access to the IPND.

The *Telecommunications Amendment (Integrated Public Number Database) Bill 2009* was passed on 11 March 2009. As an interim arrangement pending passage and commencement of the legislation, and to operate until the establishment of the central database, on 23 February 2009, the Commonwealth made a regulation to enable data contained in the IPND to be accessed immediately by the States and Territories. This will allow the implementation, albeit of a limited system, by a State or Territory to commence as soon as possible.

### National Emergency Warning Capability

The development of a national emergency warning capability has been the subject of continued consideration by COAG Senior Officials.

There is national agreement to the elements that should comprise a national telephony-based emergency warning capability:

- a. a Location Based Number Store (LBNS) to provide a common interface between the Integrated Public Number Database and emergency warning systems,
- b. jurisdictional emergency warning systems to send emergency warnings to landline telephones and mobile telephones by billing address within a selected geographic area,
- c. a national capability which builds on the jurisdictional emergency warning systems, to enable emergency warnings to be delivered to mobile telephones located within a selected geographic area

COAG will be considering the issue on 30 April 2009 including the question of cost sharing arrangements between the Commonwealth, State and Territory Governments and timelines for implementation of the national capability.



### **Notes / Recommendations**

The Review Committee notes that:

- Cabinet will consider, in a separate submission, the proposal being submitted to COAG for the development of a national community emergency warning capability.

## **3.5 Air evacuations**

The Bali bombings in 2002 and 2005 and subsequent incidents in Western Australia, including Cyclone George in 2007, the Qantas emergency landing at Learmonth 2008 and the Ashmore Reef Incident 2009, have highlighted the need for a coordinated State and national aeromedical capability and response.

The capability required is two-fold. Firstly, the capability is needed to transport mass casualties, including trauma and burns patients, from regional areas to the capital cities. Secondly, if the system is overwhelmed, particularly in mass casualty burn disasters, the capability to transfer burns and trauma patients from Perth to other major interstate treatment centres is needed. However, this capability requirement remains a significant challenge, both within Western Australia and nationally.

### **Capability Assessment**

Within Western Australia, aeromedical capability principally rests with Royal Flying Doctor Service, with some limited private aeromedical capability from Careflight and Aspen (in Karratha). This may be supplemented by private general aviation capability, which can be used for low acuity cases, but the high acuity/intensive care aeromedical capability remains limited. Nationally, while there is a national medical retrieval network which can assist co-ordination, the group has no direct access to aircraft, although States and Territories may provide access to their assets, and relies on Emergency Management Australia for its tasking authority.

It is clear that the Australian Defence Force (ADF) resources will be required to play a key role in any mass casualty aeromedical response to a disaster within Australia. However, none of the ADF aircraft most suited to aeromedical response (C-130s and C-17s) is based within Western Australia, with the majority of this capacity based in New South Wales and Queensland.

This is likely to produce substantial delays in response to an evacuation need in Western Australia, depending on type and availability of aircraft. Any substantial delay in providing specialist treatment for mass casualty victims, particularly in regional areas with limited local medical capacity and with burns patients, increases the likelihood of health complications and adverse health outcomes. In addition, there may be issues with the ability of the ADF to land aero-medical aircraft on rural and remote strips, which will require an integrated State and National response involving a range of aero-medical and other patient transport options.

### **Notes / Recommendations**

The Review Committee notes that:

- DPC will make representations to the Commonwealth to progress work on National Transport Capability for Mass Casualty Incidents arrangements and plans including utilising Defence assets.

## **3.6 Burns Treatment Capacity**

Western Australia (WA) has limited adult and paediatric burns hospital beds to deal with burn injuries resulting from large scale disasters. Contingency plans are in place through the development of the WA State Burns Plan, WA Health Surge Capacity Plan, WA Burn Injury Model of Care policy and the National Burns Plan. The National Burns Plan is currently being rewritten.

All of Western Australia's major burns and trauma capacity is located in Perth. Therefore, critically injured patients in regional areas must be transported to Perth in order to receive the appropriate level of care.

### **Recommendations / Notes**

The Review Committee notes that:

- DPC will make representations to the Australian Health Protection Committee to progress work on revision of the National Burns Plan.

## **3.7 Emergency Welfare**

Responsibility for management of emergency welfare functions during emergencies rests with the Department for Child Protection (DCP). Six emergency welfare functional areas are identified in the State Welfare Emergency Management Support Plan (WESTPLAN – WELFARE): emergency accommodation, emergency catering for evacuees, emergency clothing and personal requisites, personal services (including advice and counselling), registration and inquiry, and financial assistance.

- Local Government have responsibility for identifying local municipal facilities that could be used as evacuation and/or welfare centres. DCP is responsible for managing those facilities in emergencies.
- Where Local Government facilities are inadequate or inappropriate, DCP District Emergency Services Officers assist the Local Emergency Management Committee in identifying appropriate alternative facilities.
- DCP also has agreements in place to use non-Local Government facilities.
- In the event of an emergency necessitating wide-scale evacuation, State level arrangements may be used, or assistance sought from the Commonwealth Government.

- DCP also manages the provision of personal services and coordinates access to financial assistance.
- Under WESTPLAN – WELFARE, the Salvation Army manages emergency catering and provision of emergency clothing and personal requisites on behalf of DCP.
- Red Cross WA manages registration and inquiry arrangements on behalf of DCP for people affected or displaced by an emergency. Registration of seriously injured and deceased is undertaken by WAPOL and the Department of Health.

### Capability Assessment

These arrangements form part of the emergency management framework established under the *Emergency Management Act 2005* and associated policies and plans. They are based on the principle that the provision of emergency welfare services should be based on a local response followed by State support if needed and have proved effective when activated to date. WESTPLAN - WELFARE has recently been reviewed and was endorsed by the State Emergency Management Committee at its meeting on 10 March 2009.

### Governance / coordination

The State Registration and Inquiry System links, when necessary, with the National Registration and Inquiry System (NRIS), which is managed in Western Australia on behalf of DCP by the Australian Red Cross, Western Australia, in liaison with Emergency Management Australia. Some jurisdictions have expressed concern that the operation of the NRIS is unwieldy and needs review. The Australian Emergency Management Committee has requested Emergency Management Australia to review it as a matter of priority. The issue may also be raised for consideration by COAG in their review of emergency management arrangements.

### Human resources

DCP's statewide welfare service delivery role and capacity, together with the dedicated representation in Local and District Emergency Management Committees support coordination of emergency welfare functions in all regions of the State. DCP District Emergency Services Officers play a key role in ensuring the capability and capacity to provide and coordinate welfare support services at the local level.

### **Recommendations / Notes**

Review Committee notes that:

- the State arrangements for emergency welfare that would apply in the event of bushfire, supported by the current level of human and other resources, provide an effective emergency welfare capability.

## **4 Recovery**

*The support of emergency affected communities in the reconstruction and restoration of physical infrastructure, the environment and community, psychosocial and economic wellbeing*

### **4.1 Insurance**

The Insurance Council of Australia (ICA) has worked closely with the Victorian Government and local government authorities in the affected regions to ensure efficient handling of insurance claims following the Victorian bushfires.

It is estimated that around 23% of Australian households do not have a building or contents insurance policy<sup>7</sup>. The rates of non-insurance are higher for contents insurance than for building insurance for a number of reasons, including that some households do not have personal cover (eg renters) but may have indirect building insurance. Further, underinsurance is a significant issue: a report after the 2003 Canberra bushfires found that homeowners affected by the fires were underinsured by between 27 per cent and 40 per cent on average<sup>8</sup>.

The ICA has reported that while 2,029 homes were totally lost in the Victorian bushfires, as at 4 March 2009, only 1,468 claims for total loss had been lodged. The ICA has called for the Royal Commission to consider the issue of non-insurance in the context of consideration of community ability to recover from disaster.

The Victorian government has announced that relief payments of \$50,000 will be made from Bushfire Appeal funds to all homeowners who lost their principle place of residence, whether they were insured or not insured.

#### Capability Assessment

Under Western Australia's arrangements for State-level recovery coordination, the ICA is a member of the Recovery Services Sub Committee and would work with State and local government in support of recovery after an emergency.

ICA research indicates that the proportion of non-insured households has fallen in Western Australia following the phasing out in 2003 of the Fire Services Levy on insurance premiums, however, noninsurance or underinsurance could be a significant issue in the event of an emergency causing widespread loss and damage to property.

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<sup>7</sup> Tooth, R. and Barker, G. *The non-insured: who, why and trends*. Insurance Council of Australia May 2007 p3

<sup>8</sup> Australian Securities and Investment Commission Report 54 *Getting home insurance right: A report on home building underinsurance* September 2005 p12  
[http://www.fido.gov.au/asic/pdflib.nsf/LookupByFileName/underinsurance\\_report.pdf/\\$file/underinsurance\\_report.pdf](http://www.fido.gov.au/asic/pdflib.nsf/LookupByFileName/underinsurance_report.pdf/$file/underinsurance_report.pdf) accessed 12 March 2009

### **Recommendations / Notes**

The Review Committee notes that:

- The outcomes of the Victorian Royal Commission as they relate to noninsurance and underinsurance of property may be constructive in informing the work of SEMC and its Recovery Services sub-committee to improve community resilience in Western Australia.

## ANNEXES

### *Annex A: Terms of Reference*

#### REVIEW OF BUSHFIRE PREPAREDNESS IN WESTERN AUSTRALIA

##### Membership of the Review Committee:

Mr Peter Conran, Director General, Department of the Premier Cabinet  
Mr Keiran McNamara, Department of Environment and Conservation

##### State Emergency Management Committee members:

Commissioner Karl O'Callaghan, WA Police (State Emergency Coordinator) –  
Chair

Ms Jo Harrison-Ward, CEO, FESA, Deputy Chair

Assistant Commissioner John McRoberts, WA Police – Chair of Emergency  
Services Sub-Committee

Dr Andy Robertson, Health – Chair of Health Services Sub-Committee

Mr Geoff Hay, Department of the Premier and Cabinet – Chair of Recovery  
Services Sub-Committee

Mr Mark Fitzhardinge, Water Corporation – Chair of Lifeline Services Sub-  
Committee

Mr Mike Bergin, Bureau of Meteorology – Chair of Public Information Group

Ms Ricky Burges, WA Local Government Association – Representative of local  
government

Mr Terry Murphy, Department for Child Protection – Welfare coordination

Mr John Butcher, Executive Officer, State Emergency Management Committee

##### Terms of Reference

On 12 February 2009, in light of the Victorian bushfires, the Premier requested that the Director General of the Department of the Premier and Cabinet undertake a review of Western Australia's bushfire preparedness (memo attached) and finalise the assessment of the arrangements in a report for consideration by Cabinet within a month.

To assist in preparing a report for consideration by Cabinet, the Review Committee is asked to:

- Assess the measures currently available to manage and respond to bushfire risk within the State;
- Identify those risk treatment options on which relevant agencies and organisations are in agreement, as well as points of difference;
- Propose a process to address issues on which there is not agreement;
- Report on any other matter considered relevant to the Review.

## Scope

The Review is to assess prevention/mitigation, preparedness, response, consequence management and recovery elements relevant to bushfire emergency management. This should be reviewed in terms of legislation, policy, incident management, processes, information & communication technology (and research and development, resources & equipment and training.

The Review should take account of the Community Development & Justice Standing Committee review, any relevant coronial inquiry findings such as from the Tenterden and Ocean Farm Fires, the Auditor General's Report into Major Fires Response in WA and any other relevant reports.

The Scope is to be agreed by the Review Committee.

## Meeting Frequency

As agreed by the Committee.

## Secretariat

The Committee is supported by FESA with the assistance of the Office of State Security and Emergency Coordination, Department of the Premier and Cabinet.

The report on the Review of Bushfire Preparedness in Western Australia will be coordinated by the Office of State Security and Emergency Coordination, Department of the Premier and Cabinet.

## *Annex B: Auditor General for Western Australia Performance Examination*

Rec No.	Recommendation	Accept Yes/No	FESA Actions	Comments	Status/Date
25 a	<p>FESA should, in addition to its current initiatives, develop and implement structured programs (with clearly defined objectives, target groups and time lines for achievement) aimed at:</p> <ul style="list-style-type: none"> <li>• Increasing the level of adoption of the Australian Interagency Management System by local governments and volunteer Bush Fire Brigades: and</li> <li>• Improving Local Government bushfire emergency response planning.</li> </ul>	<p style="text-align: center;">Yes</p>	<ol style="list-style-type: none"> <li>1. FESA has written to Local Governments outlining the need to adopt structured emergency programs.</li> <li>2. FESA Managers to reinforce importance of adopting programs during contact with Local Government and through other forums</li> <li>3. These matters have been placed on agendas for District Operations Advisory Committees and Bush Fire Advisory Committees.</li> <li>4. The placement of additional Community Fire Managers and Community Emergency Service Managers within Local Government in high risk areas who actively support emergency planning.</li> <li>5. Community Emergency Management Officers engaged to assist Local Government with bushfire response planning.</li> </ol>	<p>The issues have been addressed at all Bushfire Advisory Committees and District Operations Advisory Committees across WA.</p>	<p>Completed</p>
		Yes		<p>15 Community Fire Managers have been appointed. An additional 3 appointments are pending.</p>	Completed
				<p>A manager plus 4 Community Emergency Management Officers appointed. An additional 3 appointments pending. The initial focus of the CEMO's is to ensure fire management plans are in place. The overall role is to work with Local Governments on PRRR arrangements.</p>	Completed



Rec No.	Recommendation	Accept Yes/No	FESA Actions	Comments	Status/Date
			<p>6. Through established forums, FESA is seeking ongoing feedback on ways to continually improve training.</p> <p>7. Bushfire Brigade profile documentation updated and FESA to communicate with Local Government and Regional Directors on renewed profiling targets</p> <p>8. Training for Country Chief Bushfire Control Officers and Deputy Chief Bushfire Control Officers and Fire Control Officers on Australian Interagency Incident Management System and Emergency Mgt.</p> <p>9. Memorandum of Understanding with Local Governments on handover arrangements completed and circulated. So far 76 Local Governments have signed out of 122.</p>	<p>Volunteer Training Advisory Group established. Training matters addressed and courses piloted/completed.</p> <p>Brigade profiling adopted. Resource to Risk analysis completed and matched to Emergency Services Levy funding.</p> <p>Incident management courses conducted. Chief Bushfire Control Officers course has also been developed and conducted.</p> <p>Training Resource Kit developed and training conducted</p>	<p>Completed</p> <p>Completed</p> <p>Ongoing</p> <p>Ongoing</p>
25b	Fire fighting organisations should address their training and development issues	Yes	<p>1. Training plan implemented for upskilling of all FESA Managers.</p> <p>2. Major Emergency Teams developed and bi annual training completed</p> <p>3. FESA Level 2 and 3 Incident Managers have completed computer simulated training (Vector Incident Command skills).</p> <p>4. Audits and reviews to be conducted on real time responses to emergencies.</p>	<p>4 Major Emergency Teams consist of approx 25 trained personnel who have met national standards.</p> <p>Annual training occurring. Volunteers participate in Vector Command training</p> <p>Profiling completed and implemented</p>	<p>Completed</p> <p>Ongoing</p> <p>Ongoing</p> <p>Completed</p>

Rec No.	Recommendation	Accept Yes/No	FESA Actions	Comments	Status/Date
			<p>5. Training for Country Chief Bushfire Control Officers and Deputy Chief Fire Control Officers.</p> <p>6. Profile documentation on Brigade's capabilities circulated to Regions for discussion with Brigades</p>	<p>Training package for Chief Bushfire Control Officers developed and implemented</p> <p>Brigade profiling adopted</p>	<p>Completed</p> <p>Completed</p>
25c	Fire fighting organisations should resolve telecommunications problems and work with other emergency service organisations to establish compatible telecommunication systems.	Yes	<p>1. The WA Emergency Radio Network project to address these issues.</p>	<p>Installation of emergency radio network program in Great Southern is completed. This radio network provides interoperability and is being progressively implemented across WA with completion by 2011.</p> <p>The Emergency Services Communication Strategy addresses the requirements of interoperability across emergency services and Local Government.</p>	Commenced
25d	FESA should continue to identify and remedy any under-resourcing of Brigade appliances and equipment while the risk based model for allocating resources is being finalised.	Yes	<p>1. The "Resource to Risk model" is being applied and assessed. Ongoing review of model which is adjusted when deemed necessary.</p>	<p>Summer fire fleet allocation process implemented with resources provided to high risk areas across the State.</p>	Completed

## *Annex C: Ocean Farm Fires Coronial Inquiry*

Rec No.	Recommendation	Accept Yes/No	Actions	Comments	Status/Date
1	I am supportive of the conducting of such incident reviews, particularly in cases such as this where a fire has burnt out of control and caused loss of life.	Yes	<p>FESA to undertake three levels of incident analysis in accordance with FESA Policy No 54 to ensure that incident management capability is better understood, controlled and enhanced. They are:</p> <ul style="list-style-type: none"> <li>• Debriefs;</li> <li>• Post Incident Analyses</li> <li>• Major Incident Reviews.</li> </ul>	Incident reviews are now conducted for all significant incidents.	Completed
2	I recommend that use of a log of events or running sheet should be encouraged in fire fighting in Western Australia and I suggest that a running sheet or log form or booklet should be printed and provided to all incident controllers in Western Australia through arrangements made involving Local Government and FESA. This would facilitate the maintenance of such a document and minimise the amount of effort required	Yes	<ul style="list-style-type: none"> <li>• Brigade circular issued 1/7/04.</li> <li>• New Standard Operating Procedures issued for all FESA operational personnel 27/7/04</li> <li>• Letter recommending that Local Government adopt the same was posted on 15/7/04</li> </ul>	Incident logs are now in widespread operational use	All completed
3	I recommend that FESA liaise with Local Government with a view to preparation of an appropriate pack which could contain the materials necessary to perform the role of Incident Controller as detailed in the Operations Checklist (Australian Interagency Incident Management System).	Yes	Incident management kits distributed including to local government.	Kits available through stationary supplier. The national Interagency Incident Management System "toolbox" which comprises forms for all hazards was distributed to all operational personnel. This is now available on the FESA intranet enabling personnel to utilise electronic copies of AIMS documentation in the field.	Completed. Kits to be updated annually

Rec No.	Recommendation	Accept Yes/No	Actions	Comments	Status/Date
	<ul style="list-style-type: none"> <li>• included in such a pack would be a clipboard, paper and pens, log forms as well as a resource register - simplified version of the Operations Checklists</li> <li>• Checklists – to provide guidance as to when consideration might be given to the appointment of Operations Officer, Sector Commander and Planning Officer...</li> </ul>				
4	<p>I recommend that the provisions of the <i>Bush Fires Act 1954</i> be reviewed and that FESA and local government work together with a view to determining with some precision how and when a change in control should take place in the circumstances where a relatively small fire develops into a larger fire requiring increased resources, particularly when lives and property are threatened, and there is an increasing need for control by a full-time professional officer and one is available.</p>	Yes	<p>Legislation currently under review. WESTPLAN - BUSHFIRE reviewed 2005 and 2007.</p> <p>Memorandum of Understanding on handover arrangements completed and circulated to all Local Governments for signing – so far 72 of 122 signed.</p> <p>Urgent amendments approved to provide FESA with control of major fires in prescribed circumstances.</p> <p>Community Development Justice Standing Committee Recommendations approved.</p> <p>FESA maintenance system in place. Letter sent to local government 14/7/04 recommending review of local government owned repeater stations and to adopt maintenance program to FESA prescribed standard.</p>	<p>See also 25 a (10). OAG report above.</p> <p>Training Resource Kit developed and training conducted</p>	Ongoing
5	<p>I recommend that FESA, if it has not already done so, puts in place a maintenance program which would involve the checking of the effectiveness and reliability of the batteries for radio communication repeater stations.</p>	Yes		<p>Coincides with Western Australian Emergency Radio Network and FESA maintenance schedule.</p>	Completed

Rec No.	Recommendation	Accept Yes/No	Actions	Comments	Status/Date
6	I recommend that in order to assist Local Government with communication plans, CALM and FESA to provide information as to any alternative channels which can be used at various locations in the event of an emergency. If there is an alternative repeater channel which would be available throughout a shire, then this fact needs to be known and communicated to all of those charged with responsibility at the fire scene.	Yes	<ul style="list-style-type: none"> <li>• Letter sent to local government 15/7/04 recommending adoption of same.</li> <li>• Follow up visits to Local Government undertaken by FESA staff.</li> <li>• DEC teaches communications planning and was instrumental in the AIMS revision of establishing a communications planner role in the Planning section</li> <li>• Dec has mapped its repeater coverage and is prepared to make these available</li> </ul>	This process has been incorporated in the Western Australian Radio Network Program.	Completed
7	This case has highlighted the importance of ensuring that slip-on water tanks are well secured to the trays of the vehicles on which they are secured. Such tanks must be secured by more than just bolts attached to the tray of the vehicle. There needs to be a substantial skid frame welded to the tray or a similar strong and reliable mechanism to prevent movement of the water tanks.	Yes	<ul style="list-style-type: none"> <li>• Reviewed the standards / specifications associated with appliance manufacture.</li> <li>• Reviewed slip –on concept.</li> <li>• Engaged engineer to advise on design and specifications.</li> <li>• Circular developed for local government distributed, re: risks associated with inadequate restraining of fire fighting slip on units.</li> <li>• Safety Circular prepared and issued 2/8/04 regarding securing slip on units.</li> </ul>	Endorsement by FESA that no further slip-on appliances be provided. Note Pastoralist type units exception	All completed
8	Recommend that the practice of firefighters travelling in the rear of a vehicle when not directly involved in fire suppression be reviewed and the importance of firefighters staying within a vehicle cab when being transported on a fire scene and not	Yes	<ul style="list-style-type: none"> <li>• Standard Operating Procedures issued 16/2/04 and alert issued to local government 24/2/04</li> <li>• Standard Operating Procedures reviewed and changes made to riding on rear of appliances, Information circulated 24/2/04.</li> </ul>	The recommendations also included into training programs	All completed

Rec No.	Recommendation	Accept Yes/No	Actions	Comments	Status/Date
	actually involved in fighting the fire be emphasised in the training provided by FESA.		<ul style="list-style-type: none"> <li>• Safety circular sent to Local Government informing them of the change</li> </ul> <p>Following new Standard Operating Procedures Introduced</p> <ul style="list-style-type: none"> <li>• 61- Wildfire Operational Management</li> <li>• 62- Appliance and crew protection at wildfires</li> <li>• 64- Grassland firefighting from moving vehicles</li> </ul>		

## Annex D: Tenterden Coronial Inquiry

Rec No.	Recommendation	Accept Yes/No	Actions	Comments	Status/Date
1	I recommend that in consultation with FESA, all Local Governments in bushfire prone areas to regularly upgrade and maintain their radio communication infrastructures, including back up batteries, to ensure their reliability and their ability to perform for a significant period of time in the absence of mains power.	Yes	All Local Governments notified of recommendation by FESA staff.  The implementation of the Western Australian Emergency Radio Network will improve the reliability of the communication system by upgrading and replacing the entire network equipment. Following the implementation FESA will take over the responsibility for maintaining the network ensuring compliance to standards and a formal maintenance program	See also Recommendation 5. Coronial Inquest into the death of Craig Sandy	Completed
2	I recommend that all local governments ensure that they develop adequate communication plans which include contingency plans in the event of repeater failure.	Yes	Regional personnel have discussed contingency radio planning within their respective regions and at Bushfire Advisory Committees and District Operations Advisory Committees	See also recommendation 6 above	Completed
3	I recommend that steps be taken by all of the relevant authorities to ensure that a compatible system of radio communication can be established.	Yes	Western Australian Emergency Radio Network program is implemented	This is one of the fundamental aims of the emergency radio network proposal.  The shift of FESA operational radio from VHF Mid band to VHF High band in regional Western Australia and the use of dual band (VHF High-UHF) radios will enable FESA Operational personnel to have direct radio communications with all Emergency Service Organisations.	Installation program commenced and due to be completed 2011

Rec No.	Recommendation	Accept Yes/No	Actions	Comments	Status/Date
4	<p>I recommend that Local Governments adopt and implement the State Wildfire Emergency Management Plan, especially those aspects of it referring to Australian Interagency Incident Management System – Incident Control System, as the management plan for bushfire control and that they liaise with FESA to obtain the relevant training.</p>	Yes	<ul style="list-style-type: none"> <li>• FESA Operations personnel conveyed Coroner's finding directly to all Local Governments through the established consultative mechanisms. FESA also informed key stakeholders, such as District Operations Advisory Committees and Consultative Committees.</li> <li>• WA Local Government Association, Department of Environment and Conservation and Bush Fire Service Consultative Committee as well as FESA Operations reviewed the State Bushfire Emergency Management Plan (WESTPLAN - BUSHFIRE).</li> <li>• FESA Operations conduct rural based seminars, and make available additional Australian Interagency Incident Management System – Incident Control System training to Local Government.</li> <li>• Greater access to advanced Australian Interagency Incident Management System – incident Control System programs is made available to Local Governments as developed by FESA.</li> </ul>	<p>Volunteers included in computer simulated training opportunities (Vector Command training).</p>	<p>Completed</p> <p>Completed</p> <p>Completed / continuing program</p> <p>Completed</p>



Rec No.	Recommendation	Accept Yes/No	Actions	Comments	Status/Date
5	I recommend that consideration be given to the enacting of supporting legislation to ensure statewide implementation of the State Wildfire Emergency Management Plan.		Document reviewed	Now known as WESTPLAN - BUSHFIRE. See also recommendation 4, Coronial Inquest into the death of Craig Sandy	Completed
6	In order to ensure a seamless transfer of control from local personnel to more experienced personnel, particularly FESA personnel with relevant experience, I recommend that <i>the Bush Fires Act 1954</i> be reviewed with a view to amending section 13(4) to provide FESA with the power to take control of a bushfire in appropriate circumstances.		<ul style="list-style-type: none"> <li>Memorandum of Understanding on handover arrangements with Local Government completed and circulated to all local governments for signing. So far 72 Local Governments out of 122 have signed.</li> <li>Training package for local governments developed and delivered.</li> <li>The placement of additional Community Fire Managers and Community Emergency Service Managers within Local Government in high risk areas who actively support emergency planning.</li> <li>Urgent legislative amendments to provide FESA with control of major fires in prescribed circumstances.</li> </ul>	Training Resource Kit has been developed and training delivered.	Completed  Completed  Ongoing  In progress

## ***Annex E: Auditor General Performance Examination 2004 – Department of Environment and Conservation response***

### **Executive Summary**

*Finding* CALM faces challenges in maintaining its current level of trained Staff

*Recommendation* Address key training and development issues

*Action* DEC has increased its commitment to training commensurate with its task

### **Fire Fighting organisations need to be better prepared**

*Finding* CALM faces challenges in maintaining its current level of trained staff

*Recommendation* Fire fighting organisations should address their training and development issues.

*Action* DEC has increased its staffing of dedicated fire officers significantly in past 5 years.

*Finding* CALM relies on heavy machinery contractors to support its fire fighting capability and while past shortfalls in availability have been rectified, consistent monitoring is needed to avoid this happening again.

*Recommendation* CALM should systematically evaluate its heavy machinery capability, and in particular the ability of heavy machinery contractors to provide a timely response to bushfire incidents on an ongoing basis.

*Action* DEC has obtained significant increases in funding for acquisition and hiring of dedicated fire equipment including heavy machinery, tankers, and specialized communications and fire control point facilities. DEC continues to monitor the availability of adequate fire suppression machinery.

## ***Annex F: Western Power's Response to Tenterden Coronial Inquiry***

The Tenterden Coronial Inquiry raised a number of serious concerns relating to Western Power's performance. The following is an outline of the steps Western Power has taken to address these concerns.

### Linesmen using inappropriate construction practises

To address this problem, Western Power has established A "Field Operations Review and Development" (FORD) Group. Its role includes ensuring that procedures are being consistently followed (such as the procedures for tensioning conductors). The FORD Group comprises Western Power staff who are responsible for ensuring that any changes to work practices and methods are communicated to linesmen in the field. Having a body such as the FORD Group is also intended to ensure that problems in the field are communicated to the Overhead Line Engineers for resolution.

To further support field staff, Western Power has appointed 3 new members of staff whose specific role is to provide technical support to linesmen in regional areas: one in Picton, Albany and Bridgetown Depots.

### Overhead line maintenance procedures review

Western Power has improved its documentation and procedures relating to sag and tensioning of overhead powerlines. Western Power's System Services Branch continually reviews its "Overhead Line Maintenance procedures" (July 2005, April 2007). During the most recent review, the Overhead Standards Engineer developed new 'Sag & Tension tables' that will chart the temperature compensation to be applied for stringing conditions.

### Infrastructure inspections

Western Power conducts a 4 yearly inspection regime of the 75,444 km High and Low Voltage overhead powerlines. This inspection considers the whole of the asset base, poles, lines plant and equipment connected to these lines. As well as a visual inspection of the assets, a condition assessment is made of the pole structure, utilising a 'dig and drill, good wood test'

Western Power's Asset Management system has also identified the risk presented by vegetation around its overhead line assets and has instituted a specific vegetation inspection and remedial action to respond to the fire risk rating:

#### Fire Risk Categorisation - Vegetation Inspection Timescale

Extreme Fire Risk	Annual Inspection
High Fire Risk	Annual Inspection
Urban Fire Risk	Annual Inspection
Moderate Fire Risk	Inspected every 2 years
Low Fire Risk	Inspected every 3 years

Western Power has reviewed and integrated its line inspection processes, bundling both pole top and pole base inspections, in accordance with revised technical standards that should identify obvious deficiencies in conductor tension. Western Power has also ensured that only suitably qualified inspectors are engaged to conduct the required inspections

#### Contractor accreditation and authorisation

As part of the revisions to its maintenance regimes, Western Power has implemented a process training program to ensure that its linesmen are increasingly multi-skilled. All overhead line contractors who are engaged to working on the Western Power network are assessed by the Western Power Training School (Jandakot), to ensure they can carry out the work they have been engaged to do. Contractors are assessed according to the same standards as Western Power staff.

#### Possibility that earth wires tighten with age

It has been suggested that earth wires have a tendency to tighten with age, thus increasing the risk of conductor clashing. Western Power's Overhead Standards Engineer has tested this theory with fellow conductor specialists at an Australian Standards meeting during the C(b)1 document review. The consensus view among the experts was that the supposed phenomenon does not exist.

However, it was suggested that earth wires are, on occasion, being over-tensioned after breakage or with initial installation. The establishment of the FORD group and the additional training of lines staff should ensure this does not occur in the future.

#### Inaccuracy of fault records

At the time of the Tenterden bushfire, faults were stored in both the Distribution Fault Reporting system (DFR) and the Trouble Call Management System (TCMS). While both systems were designed and maintained within Western Power, the quality of the fault data in each was found to be unsatisfactory – particularly in the case of the DFR.

A review of Western Power's processes for recording faults was conducted in 2005. The review assessed aspects of data quality and integrity, the collection of fault data, risks associated with the entire fault process (from when a fault call is received by Western Power to when the fault is resolved) and the management of all the activities within the process.

The results of this review led to DFR being decommissioned and TCMS becoming the single source for all fault data on the distribution network. In September 2008, TCMS was decommissioned and replaced with the Trouble Call System (TCS). The key advantages of the new system are:

- Full integration with Western Power's SCADA system, thus providing greater accuracy in fault predictions and reliability statistics;
- The ability to collect asset conditions against the asset;

- Support for a more robust and effective ‘mobile workforce solution’, which will allow fault data to be captured ‘on-line’ rather than on manual forms; and
- More granular and effective collection of information from the public through and improved Interactive Voice Recognition (IVR) system.

### Improvements in the quality and management of asset data

Western Power has committed substantial funds to the improvement of the systems and processes it uses to collect store and manage its asset data, as well as the quality of the data itself. As part of its Strategic Program of IT work, there are four specific projects aimed at this area of the business:

- Asset system rationalisation project – The rationalisation of existing systems into a single, best practice, corporate wide, enterprise system (Ellipse), this project is nearing completion;
- Data quality project – The project will provide a step change improvement in the quality and availability of asset data. The project is well underway.
- GIS replacement project – Western Power’s existing GIS system (DFIS) will be replaced with an ‘off the shelf’, ‘best of breed’ GIS system to achieve greater flexibility, tighter integration with the asset management system (Ellipse). This project will commence once the Asset Systems Rationalisation project is complete.
- Workforce management project – This project will improve the “field-to-office” processes that collect information about work completed upon the network. This project has commenced.

### Absence of a Strategic plan

The Network Performance Section of the Customer Service Division is responsible for the preparation of strategies for the network investment. Network Performance is split along functional lines of the Transmission and Distribution Network Sections. Both Network Sections provide a strategic plan for the assets for which they are responsible.

The Distribution Asset Management Plan (DAMP) provides the strategic view of the network and the requirements for investment for the next 20 years. It describes the individual assets that make up the network and the asset management approach taken to achieve the required standards of performance for the good stewardship of the network. It is endorsed by the highest levels of Senior Management within Western Power.

The DAMP also provides the basis for Western Power’s Access Arrangement funding request. The DAMP is the accumulation of the Asset Management knowledge and is supported by the Asset Management documentation library.

## Inadequate reporting and investigation of serious incidents

Western Power conducts a number of workshops for staff on how to conduct investigations and write reports. These workshops are run in conjunction with the Australian Institute of Management.

The investigations function of Western Power's operations is utilised in the event of death or serious injury. It has been centralised in Western Power's Safety Compliance and Investigations section, reflecting the fact that the result of an investigation is typically a report to be provided to the Office of Energy Safety and, if necessary, the Coroner. This is an independently and separately managed branch of Western Power's Customer Services Division. This restructure has increased the independence of Western Power's investigation process by removing responsibility for conducting investigations away from those who are involved in asset specification and maintenance.

## Standards and Guidelines

### *Conductor Spacing*

The 2007 Toodyay fire was the result of conductors clashing due to extreme weather conditions. This incident occurred despite the fact that the lines in question complied with the relevant Australian Standard. In light of this, the Standard is being reviewed and is due to be updated by the end of the year. Western Power staff have been involved in the review process. The new Standard will also propose solutions for the rectification of long bays. When implemented, these solutions will help reduce the incidence of conductor clashes.

### *Vegetation Clearance Zones*

Vegetation Clearance zones are in general, adequate for safely managing vegetation around Western Power assets. However, Western Power has formed a Working Group comprising Councils, Energy Safety and other stakeholders in the Vegetation Management industry to review these clearances. Negotiation with owners of trees outside the vegetation clearance zones is a proven successful strategy for public safety. Additional funding identified within the AA2 will enable WP to better risk manage trees outside the clearance zones through assisting the owners of tree's to prune or remove.

# ***Annex G: DEC Fire Management Policy***



## **POLICY STATEMENT NO. 19**

### **FIRE MANAGEMENT POLICY**

#### **1. OBJECTIVE**

The Department will manage prescribed fire and wildfires on lands managed by the Department to protect and promote the conservation of biodiversity and natural values whilst also providing for protection of human life and community assets. The Department will also promote fire management that protects biodiversity on lands not managed by the Department.

Fire management will be planned and implemented in partnership with other landowners and land managers, fire authorities and the community. The Department will implement an informed and balanced approach to risk management. A variety of fire regimes incorporating different frequency, intensity, season and scale will be applied at the landscape scale on lands for which the Department has a fire management responsibility.

#### **2. BACKGROUND**

The rationale and the principles upon which this policy is based are provided in the Appendix.

#### **3. LEGAL BASE**

- Sections 33(1)(a) and 33(3) of the *Conservation and Land Management Act 1984* (CALM Act) provide for the Department to manage lands to which the Act applies, according to management plans or, in the absence of a management plan, in accordance with the necessary or compatible operations provisions of the Act depending on the land category. Fire management activities are subject to these provisions.
- The *Bush Fires Act 1954* applies to land throughout the State including Department-managed lands. The provisions of the Bush Fires Act do not, however, affect the provisions of the CALM Act and the Department is generally not bound by the Bush Fires Act.

- Section 39 of the Bush Fires Act provides wide-ranging powers for a bushfire control officer to take necessary steps to extinguish a fire. If an authorised CALM Act officer is present at a fire on or near any Crown land, the officer may take supreme control of the fire as if the officer were a bushfire control officer appointed by a local government authority. The Bush Fires Act also provides other powers to designated Departmental officers. Section 56 of the Act imposes a specific duty on an authorised CALM Act officer to take enforcement actions under the Bush Fires Act (eg. to demand the name and address of an offender, to require a person to produce an authorisation to light a fire, and to apprehend an alleged offender without a warrant).
- The *Wildlife Conservation Act 1950* and the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* provide special protection to threatened species (both Acts). The Commonwealth Act also protects threatened ecological communities. These impose an obligation to conduct fire management activities accordingly.
- Under common law, the Department falls under a duty as an occupier to take all reasonable care to eliminate or minimise foreseeable risks of harm. The Department could be held liable for injury or loss caused by fire that a Departmental employee had negligently lit or negligently failed to control.
- In July 2003 the Department was allocated the role of managing fire preparedness on non-metropolitan, non-townsite unallocated Crown land and unmanaged reserves. The responsibility for fire suppression on these lands remains with local government.
- Under the Western Australian Emergency Management Arrangements that are outlined in the State Emergency Management Committee Policy Statement No 7, the Department is recognised as the Hazard Management Agency (HMA) for wildfires on or near CALM-managed lands. Under these arrangements, the HMA “is responsible for ensuring that emergency management activities pertaining to the prevention of, preparedness for, response to and recovery from a wildfire are undertaken”. The HMA’s responsibilities include the preparation of a strategic plan or arrangements (WESTPLAN-WILDFIRES) that is designed to cope with wildfires on or near CALM-managed lands, and that includes details of joint agency operational arrangements.

#### 4. RELATIONSHIP TO OTHER DEPARTMENTAL POLICIES

The Department’s Fire Management Policy is consistent with and recognises the requirements contained in other Departmental policies:

- Policy 3 Management of Phytophthora and Disease caused by it
- Policy 9 Conservation of Threatened Flora in the Wild
- Policy 10 Rehabilitation of Disturbed Land
- Policy 31 Management of Reserves for the Conservation of Nature
- Policy 40 Road Management
- Policy 41 Beekeeping in Public Land
- Policy 49 Radio Communications
- Policy 60 Occupational Health and Safety
- Media Relations Policy
- Public Participation Policy
- Wilderness Policy



## 5. POLICY

### 5.1 Safety and Risk

**Safety** Firefighter and public safety is the first priority in every fire management activity.

**Risk management** The protection of human life and biodiversity, cultural and community assets will be undertaken commensurate with the risk posed by fire to human life and those assets and the consequence of fire impacting on human life and those assets.

### 5.2 Use of Fire

**Objectives for fire management** Fire will be used to achieve a range of land management objectives, including the conservation of biodiversity; maintenance of ecosystem health and productive capacity; conservation of soil, water and catchment values; conservation of natural and cultural heritage; regeneration and protection of native forests and plantations; and protection of human life, community assets, indigenous heritage sites, recreation sites and scenic values. These objectives, and the methods used to achieve them, will be specified in individual burn prescriptions.

**Prescribed burning** Prescribed burning plans will integrate biodiversity conservation and asset protection objectives in order to optimise outcomes. In the planning of prescribed burning programs the assessment of fire requirements for biodiversity outcomes will be given first consideration and any shortcomings from this approach for other objectives will be taken into account subsequently so that prescribed burn plans achieve all priority objectives.

**Manage for diversity** A variety of fire regimes incorporating different frequency, intensity, season and scale will be applied at the landscape scale (tens of thousands of hectares) and other scales. Planned fire regimes will incorporate the incidence of wildfires.

**Fire planning** Planning for prescribed burns will incorporate the need for biodiversity conservation and strategic protection from wildfires, at both the landscape scale and land management unit scale (several hundred to several thousand hectares). Three year indicative prescribed burning plans and annual burning plans will be prepared. The planning and application of fire regimes will require consideration of interacting factors such as invasive species (weeds and feral animals), regeneration of native species, grazing impacts, fire history and the size of the park/reserve/forest. This is of particular concern in fragmented landscapes where Department-managed lands are surrounded by extensive urban and agricultural land uses.

Community consultation	During the planning process for prescribed burning the Department will consult with traditional owners, the community, government agencies and specific stakeholders. In particular a formal process of public consultation and engagement will be implemented during the preparation of the three year indicative prescribed burning plans for the south-west forest regions and annual plans for other regions. Fire management will be considered during public consultation on the content of area management plans prepared for the Conservation Commission. Consultation processes will also be used as an opportunity to develop community understanding and support for fire management programs.
Community awareness and education	The Department will make available to the community information concerning the outcomes of the community consultation process. Information on fire management and the Department's planning and operational processes will also be published and posted on the internet.
Qualified personnel	Prescribed burns will be planned, directed and conducted by qualified and experienced staff. Written prescriptions will be prepared by trained staff, with appropriate input from other Departmental staff and sources external to the Department.
Approvals	Every prescription will be reviewed and approved by the responsible manager prior to implementation. Each year the three year indicative prescribed burning program and the proposed annual burn program for the south-west forest regions will be brought to Corporate Executive by the Director of Regional Services for endorsement.
Monitoring and audit	The extent to which prescribed burn objectives have been achieved will be monitored and recorded in order to continue the process of adaptive management. Fire management plans and prescriptions will contain performance indicators and monitoring criteria against which achievements can be measured. The outcomes of monitoring and performance appraisal will be reported at appropriate intervals to the Executive Director. The achievement of fire management objectives contained in CALM's prescribed burning programs and in area management plans will be subject to periodic audit by the Conservation Commission.
Smoke management	Prescribed burns will be managed to reduce the risk of smoke causing detrimental impacts on population centres and other sensitive areas through application of smoke management guidelines. Potential impacts of smoke and ash on water catchments, road traffic, neighbours and visitors, and firefighters will be considered when planning and implementing prescribed burns.

### 5.3 Fire Suppression

Suppression capacity	The Department will maintain its fire management, suppression and response capability in accordance with sound risk management principles recognising the availability of resources from local government volunteers, fire authorities and other sources. This requires an adequate state of preparedness and standards of fire suppression relative to the values at risk, and to the difficulty of controlling fires in a safe and cost-effective manner.
Readiness	The Department will, in consideration of risk assessment outcomes and the availability of resources from other agencies, maintain an effective and efficient fire-suppression capability of personnel, equipment and aircraft. Resources need to be mobile and personnel must be fit, skilled and well trained.
Detection	The Department will, in high risk or high value areas, maintain fire detection and fire reporting systems that will give timely and accurate warning of fires threatening community or environmental values. Lower level detection and reporting systems will apply in other areas.
Response	The Department will respond to fires occurring on or near Department-managed lands to a degree that is appropriate to the values at risk, the prevailing and forecast weather, the availability of resources, the cost of the suppression operation, and the likelihood of long-term impact or net gains to the environment. In circumstances where impacts of the wildfire are likely to be low or resources are limited, the response may mean observation, rather than active suppression.
Control	The Department will take control of, or provide assistance at fires on or near Department-managed lands in accordance with State and local arrangements between the Department and fire authorities and other agencies;
Access	The Department will maintain an effective system of roads, fire access tracks and helipads to provide access and safety for firefighters.
Environmental harm	The Department will fully consider the protection of environmental and other values in determining strategies for fire suppression. Where appropriate, fires may be contained within management units defined by existing roads rather than by constructing new firelines around the perimeter of the fire. Where firelines are constructed during suppression operations, they will be subsequently rehabilitated to minimise the threat of soil erosion, weeds or spread of dieback disease.
Training	The Department will develop and deliver high quality training and performance assessment programs for Departmental staff for appropriate roles in fire and incident management.

Interagency arrangements The Department will establish interagency agreements and working arrangements with fire authorities and volunteers to provide cooperative and coordinated fire fighting that can deal successfully with the full range of emergencies on or near Department-managed lands.

#### **5.4 Wildfire Prevention**

Prevention The Department will plan and conduct wildfire prevention activities to minimise the incidence of preventable wildfires (ie. unplanned fires of human origin).

Identify fire cause The Department will, where practical, attempt to identify the origin and cause of wildfires on lands under its control and will investigate fires that result in damage to private or community property. Where regulations have been breached, the Department will take appropriate action to identify and, as appropriate, arrange prosecution of offenders.

Arson The Department does not have jurisdictional responsibility to effect initiatives for arson prevention or preparing communities for wildfire events. However, the Department will work closely with the Fire and Emergency Services Authority, the Police Arson Squad and local government authorities in developing and implementing coordinated fire prevention and preparedness programs.

#### **5.5 Liaison**

Interagency arrangements CALM will participate with other State agencies and local government authorities in developing approaches to fire risk mitigation, including in peri-urban areas.

Partnerships The Department will carry out its fire management role in partnership with other relevant agencies, primarily the Fire and Emergency Services Authority, the Forest Products Commission, local government authorities and Volunteer Bush Fire Brigades.

#### **5.6 Research**

Research and knowledge The Department will sponsor and undertake research into fire management and ensure that the resultant knowledge is disseminated to fire managers and the community.

### **6. POLICY IMPLEMENTATION REQUIREMENTS**

- To enable a consistent, reliable and transparent assessment of the risk and consequence of wildfire to biodiversity, cultural and community assets, the Department will utilise the Australasian Standard (AS/NZS 4360 Risk Management) as the basis for its approach to wildfire risk management.

- The Department recognises the importance of science, local knowledge and expertise and indigenous knowledge to underpin fire management. The Department will continue to promote and support research into fire ecology, fire behaviour, fire information systems and fire control systems and to apply adaptive management principles in its fire management operations.
- The Department will work with fire management agencies and research organisations to investigate and implement fire management strategies that mitigate against the impacts of climate change with respect to fire ecology and wildfire management.
- In order to facilitate support and assistance for cooperative and coordinated fire management across jurisdictional boundaries, the Department will implement education and awareness programs for neighbours and the community on best practice fire management.
- In order to promote the safe, efficient, effective and integrated management of fire and fire related activities on lands managed by the Department, a comprehensive set of standards, procedures and prescriptions will be published and maintained.
- Strategies other than prescribed burning, such as mechanical treatments of vegetation (eg. rolling or slashing) and grazing with livestock will be considered and applied where appropriate in meeting management objectives for the land in question.
- The need for effective fire management will be recognised in the policies and plans prepared by the Department. This includes area management plans prepared for the Conservation Commission for regions, State forest, parks and reserves as well as fire protection plans for high value assets, property, plantations etc as required. Every district will annually prepare a Fire Preparedness and Response Plan and a Prescribed Burning Plan.
- All instructions, prescriptions or guidelines developed for fire management activities undertaken by the Department must be consistent with the fire management principles and operational rationale in the Appendix.
- The Department will provide appropriate awareness and training programs for all staff likely to participate in any aspect of fire management to ensure adequate understanding, knowledge and skill levels to implement the fire policy in an environmentally sensitive, safe and cost-effective manner.
- The Department will use its best endeavours to both consult and involve traditional owners in fire management activities where the objective is to replicate traditional burning practices.
- The Department will contribute to State-wide fire management by representation on community based and interagency committees and working groups concerned with fire management at local, regional and State levels.
- The Department will maintain formal liaison with fire management authorities in other countries, States and Territories to ensure the currency of mutual aid arrangements and the transfer of knowledge on best practice fire management.
- Departmental staff must meet their obligations under this Policy through assigned levels of delegation, approved budgets, sourcing and planning as provided for in the Department's table of delegations, Departmental and other instructions.

- The implementation of this Policy will be subject to Departmental audit and periodic audit by the Conservation Commission in assessing the implementation of management plans.

**7. CUSTODIAN**

The Director of Regional Services is the custodian of this Policy.

**8. EXECUTIVE DIRECTOR APPROVAL**

Approved on .....

by .....  
Executive Director

## Appendix to Fire Management Policy

This appendix outlines the rationale for fire management plans and activities implemented by the Department of Conservation and Land Management. A set of principles to guide fire management is also outlined.

### Rationale

- Fires have occurred regularly on most lands managed by the Department. Fires from natural causes (eg. lightning) will inevitably occur. Fires from human activities, either deliberate or accidental, will also occur, but unplanned fires may be minimised by effective public education and awareness, and by enforcement of legislation and compliance management.
- Aboriginal people have inhabited Western Australia for more than 40,000 years and over this period they have used fire as a management tool for hunting, access and spiritual reasons. The landscapes that European settlers and their descendents have come to recognise as being distinctively Australian have been fashioned by fire over many generations.
- Fire is a natural environmental factor that can have both destructive and beneficial effects. It can regenerate, recycle nutrients, create and maintain habitats, but can also kill, injure and destroy. The impact of fire varies with the frequency, intensity, scale, time of year and the fire sensitivity of the community in which it occurs.
- Wildfires do not distinguish between land tenures. Fire protection and fire management regimes must involve all State Government agencies with land management or fire management responsibilities, local government authorities and private land managers working cooperatively to achieve agreed fire management objectives.
- Fire has very different impacts on the biota contained in the twenty-six bioregions represented in Western Australia. Fire regimes must be appropriate to the needs of each bioregion.
- Exclusion of fire from naturally fire prone vegetation over large areas results in the gradual build-up of live and dead vegetation which becomes fuel and increases the risk of large, intense and costly fires. In most vegetated ecosystems, the exclusion of fire for long periods over large areas is difficult to achieve, and may also be undesirable from a biodiversity conservation and community protection point of view.
- A regime of too frequent fires, planned or unplanned, can have adverse impacts on biodiversity for some species and in some ecosystems including riparian zones, granite outcrops, wetland ecosystems and small patches of remnant vegetation.
- Planned fire will be excluded from representative scientific reference areas, including fire sensitive ecosystems, and these will provide an important benchmark against which the effects of other fire regimes can be evaluated. Some biota and ecosystems may also benefit from long periods of fire exclusion. The location and size of fire exclusion areas should take account of firefighter safety and other management influences.
- Planned fires can be used in natural areas to minimise loss of life, property and services, and to achieve biodiversity conservation objectives. This is likely to be a more cost-effective and predictable method of fuel management over large areas than using alternative methods including manual, mechanical, chemical and biological methods.

- Suppression difficulty and damage potential to life and property of a bushfire are proportional to the size of the fire, the conditions under which it is burning, and the rate and amount of heat energy released (fire intensity). The intensity and speed at which fire burns is related to the quantity and structure of accumulated litter, bark and plant material, which is in turn related to the period since last fire. In most vegetated ecosystems, accumulated fuel loads can be reduced by low intensity prescribed fires. This reduces the likelihood of intense fires even under extreme conditions and improves the capacity for firefighters to safely control a fire. Under extreme fire danger conditions, the spread of fire may only be retarded in light fuels.
- Threshold levels of available fuel quantities or fire intervals have been identified in many major vegetation types which represent the upper limits beyond which fire behaviour in summer conditions will be severe and too dangerous to be suppressed by either ground or aerial fire suppression methods. In situations where a number of fires are burning simultaneously and fire fighting resources are fully committed, the existence of strategically-located areas of reduced fuel provides fire managers with greater flexibility in the deployment of available resources. Fires burning into light fuels may be given lower priority for attention because they are less likely to exhibit severe fire behaviour.
- Maintaining air quality is a major challenge in the execution of approved prescribed burning programs. The need for prescribed fire to conserve biodiversity and to protect community values presents a risk to achieving the standards of air quality regulations in high population areas. This risk can be minimised through the use of sophisticated smoke prediction models.
- Public understanding of the role and effects of fire, and application of planned fire and fire suppression operations, is vital. Effective communication and consultation with the community leads to greater understanding and support for fire management programs, and ensures that knowledge within the community is made more readily available to managers.

### **Principles for Fire Management**

- The vegetation and climate across Western Australia make it highly prone to bushfire. Over millions of years fire has contributed to the evolution of the State's ecosystems. Fire is an important disturbance factor that will continue to influence the biotic composition and structure of all natural ecosystems.
- Plant and animal species and communities vary widely in their adaptations to, and reliance on fire. Species and communities require particular fire regimes for their long-term survival. Such requirements may vary within the ecological and geographical range of species.
- There is no single fire regime that is suited for all flora, fauna and ecosystems. Organisms have developed with a great variety of fire regimes, and thrive in different circumstances. A fire regime that enables one organism to gain competitive advantage will disfavour a competitor.
- Diversity and variability in fire regimes at the landscape level help maintain biodiversity. The application of ecologically based fire regimes that provide for an interwoven mosaic of vegetation and habitats representing a range of fire intervals, fire intensities, seasons and scales will help optimise the conservation of biodiversity. Patchiness of burning is an important factor in providing environmental heterogeneity at a local level. In some instances fire exclusion will be planned. On the other hand, widespread, high intensity fires will periodically remove most of this local patchiness from the landscape. Patchiness can be achieved through applying fire during periods of fuel moisture differential, through the lighting pattern used, and by burning adjacent to light fuels.



- Fire management at a very local level may be critical for the survival of some threatened species and ecological communities.
- Following fire, other factors such as climatic events (eg. drought) and insect attacks often drive ecosystems towards a new transient state with respect to species composition and structure. This may preclude the identification of changes specifically attributable to fire.
- Climate has a major influence on fire regimes, and is one of the fundamental factors determining the distribution of vegetation communities at a regional scale. Some regions of the State have experienced significant shifts in climate over the past three decades and there is an expectation amongst the scientific community that the rate of climate change may accelerate in the future. Fire management should therefore be based on an understanding of climatic trends and adapt to meet changing circumstances.
- All available knowledge including life histories, vital attributes of the native flora and fauna and knowledge of indigenous traditional fire regimes will be used to develop ecologically-based fire regimes.
- Fire management policies and practices should adapt to new knowledge gained through strategic long-term and short-term research and monitoring programs. This adaptive approach to fire management should be flexible to any changes to community values and expectations.
- Fire management planning on lands managed by the Department must address the threats and impacts of wildfire, accommodate the use of planned fire and provide for the achievement of specified land management objectives.
- The response to the threat of wildfire on Departmental lands must consider legal requirements, be thoroughly planned, safe, effective, cost-efficient and environmentally sensitive. All fire management activities, including fire suppression and prescribed burning, must be conducted in accordance with clearly defined procedures that provide for safe work practices and have outcomes monitored and recorded.
- Planning an appropriate response to the occurrences of wildfires must include an assessment of the threat to human life, community assets and services, and natural values, and consider these in conjunction with the management objectives of the area.
- Principles of environmental care must guide all preparedness, suppression, recovery and prescribed burning activities.

***Annex H: FESA – LG Operational Response Agreement***

**OPERATIONAL RESPONSE AGREEMENT**

**Between the**

**The Fire and Emergency Services Authority of Western Australia (Authority)**

**And**

**The Shire of ..... (the Shire)**

**For**

**The transfer of control of bushfires within The Shire of .....**

**PURPOSE**

This Operational Response Agreement, documents the formal handover process for transferring Incident Management from the Shire of ..... To the Fire and Emergency Services Authority of Western Australia (*the Authority*)

**LEGAL COMPLIANCE**

This Operational Response Agreement is made pursuant to the responsibilities described in the *Local Government Act 1996*, *Fire Brigades Act 1942*, *FESA Act 1998* and **specifically the Bush Fires Act 1954**

**Section 13. (4)**

*Where a bush fire is burning in the district of a local government the Authority may, at the request of the local government, authorise a bush fire liaison officer to take control of all operations in relation to that fire.*

**Section 13. (5) Of the Bush Fires Act 1954**

*If a bush fire liaison officer takes control of all operations in relation to a fire, all*

*bush fire control officers; and*

*officers and members of a bush fire brigade,*

*who are present at the fire are in all respects subject to, and are to act under, the bush fire liaison officer's orders and directions.*

**TRANSFERRING CONTROL**

- (a) Where an incident is considered by the Incident Controller or the Fire Services Manager to be a bush fire meeting one or more of the agreed handover criteria, the nominated Local Government representative may request FESA, through its nominated officer, to take control of that fire under Section 13(4) of the *Bush Fires Act 1954*.
- (b) Local Governments nominated representative will be the Incident Controller prior to transferring control.  
  
FESA’s nominated representative will be a bush fire liaison officer.
- (c) The handovers will be documented on the Emergency Incident Handover and Stand Down Proformas. The FESA COM centre is to be advised on the day.
- (d) Financial Assistance will be provided as per **WILDFIRE FINANCIAL ASSISTANCE – APPROVAL TO EXPEND SAP12**
- (e) Where incident control has been handed to FESA, at least one (and preferably more) Senior Shire Bushfire Control Officer/s will, be a member of the IMT.
- (f) The Shire bush fire fighting resources, including appliances and volunteers will remain at the incident and assist in suppression activities as determined by the Incident Controller.
- (g) This agreement shall remain until the Incident Controller/Manager determines the bush fire has been contained and stand down procedures can commence.
- (h) This protocol is to be reviewed by FESA and the Shire of .....annually following the fire season.

**PARTIES TO THIS AGREEMENT:**

The Chief Executive Officer  
Shire of

Signed:

Date:

Chief Executive Officer  
of the Fire and Emergency Services Authority of Western Australia, a person duly authorised by the Authority under section 38(5) of the *Fire and Emergency Services Authority of Western Australia Act 1998*.

Signed:

Date:

## ***Annex I: FESA Bushfire Awareness and Education***

FESA has targeted its engagement strategies for the 2008-2009 fire season to priority locations in Western Australia's High Bushfire Risk Areas using our bushfire risk matrix that was developed by key bushfire management stakeholders, including local government and utilises the Risk Management Standard AS/NZS 4360. DEC fire behaviour and risk management capability could be further utilised in determining future engagement strategies.

To target our campaign FESA established a range of community engagement activities that have been undertaken this bushfire season, including; Community awareness display's at Local Markets; Community preparedness informational material; Regional Emergency Services Expo's; Community Meetings; Development of a schools program – Consequences of fire; Media strategy targeting key bushfire awareness and preparedness messages.

In addition FESA is delivering a range of localised media strategies to address a range of issues including, bushfire arson, absentee land owners, 'Stay and Defend or Go Early Policy' and strategies to reassure tourists of the safety of visiting popular towns and to educate local residents in bushfire safety.

This has been achieved through media interviews, media statements and providing support to local firefighters who are undertaking localised community events such as shopping centre displays.

ABC radio has been very supportive in promoting FESA's bushfire safety messages prior to and during the bushfire season. ABC is airing a number of community service announcements across the state encouraging residents to prepare their homes and develop a bushfire action plan. A number of District Managers have been interviewed on ABC radio this week to highlight the fire hazards and the need for community preparation.

### FESA Bushfire Ready Program

The Bushfire Ready program is a community group oriented program. The program has been in existence since 1996.

FESA has worked with local brigades and community members to establish over 20 Bushfire Ready groups in bushfire prone areas to achieve the following:

- Raise awareness of bushfire hazards;
- Provide information on bushfire behaviour and available preparedness strategies;
- Reduce the fire risks around the home, streets and surrounding area; and
- Provide a realistic expectation on what emergency services are capable of during a bushfire.

The Bushfire Ready Program is firmly established in the high bushfire risk locations of Yallingup/Dunsborough, Darlington, Bedforddale, Oakford, Roleystone, Kalamunda and

Bullsbrook. There are a number of other locations that are in varying stages of development of these groups.

Communication with Bushfire Ready facilitators has occurred following the recent Victorian fires. The aim of this is to assist the Bushfire Ready facilitators in re-establishing community confidence in the Stay or Go policy following the significant number of deaths and injuries to community members in Victoria.

### School Based Programs

The following programs have been developed for primary school children from Years 1 to 7.

- Fire Inside Out education packs have been available in West Australian primary schools since 2002. The kits are divided into early, middle and upper primary age groups and contain a CD Rom, story book, hard copy lesson plans and activities sheets. This program became available online in downloadable PDF format in 2008.
- In 2008 a Juvenile Fire Lighting program kit was developed as a program for schools that have experienced juvenile arson activity. This program was delivered in the Pilbara and Kimberley region and can be modified to suit local issues in other areas of Western Australia. The Juvenile Fire Lighting Program has also been modified to suit Indigenous school aged children.

## ***Annex J: Government support for emergency service volunteers***

### 1. Capital Injection Proposal

It should be noted that Western Australian Local Government Association (WALGA) have made successive submissions for additional funding to address capital needs of their respective local government volunteers.

With over 700 units and brigades across the State there remains however a significant number of volunteer appliances and vehicles which still require replacement.

**Table 1: Local Government Bushfire Tankers that are beyond the 16 year and 10 year replacement life**

<b>Region</b>	<b>Number of tankers older than 16 years</b>	<b>Number of Light tankers older than 10 years</b>
Perth Regions	4	5
South West	15	11
Great Southern	33	1
Midlands	15	4
Midwest	7	
Pilbara Kimberley	1	1
<b>Total</b>	<b>75 Tankers</b>	<b>22 Light Tankers</b>

**Table 2: Current requests for additional tankers by local governments against risk modelling in FESA Regions**

Perth Regions	1 Tanker	Increased urban interface developments in Yanchep with no established local brigades
South West	16 Tankers	Some Shires have relied on farmer response however demographic change has resulted in loss of private equipment in response. Others such as Manjimup have semi rural settlements developing but bordered by high risk forest areas and are under resourced.
Great Southern	12 Tankers	Increasing industrial activity and population demographic changes along the south coast is occurring in high risk areas surrounded by natural conservation estate.
Midlands	15 tankers	Many local governments in moderate to low risk locations have not adequately resourced risk in the past.
Midwest	18 Tankers	Many local governments in moderate to low risk locations have not adequately resourced risk in the past.
Pilbara Kimberley	6 tankers	Demand for additional resources in population centres
<b>Total</b>	<b>68 Tankers</b>	

**Table 3: Number of requests for new fire stations (1, 2 and 3 bay) still outstanding.** Table does not include requests for modifications and extensions.

Perth Regions	5
South West	11
Great Southern	14
Midlands	9
Midwest	3
Pilbara Kimberley	2
<b>Total</b>	<b>44 New Fire Stations</b>

Consequently, requests from local government for new and upgrades to volunteer buildings greatly exceed the funding capacity of the ESL Grant Scheme.

The current levels of resourcing required but not met include 87 tankers over the operational life, 68 tankers proposed in locations that are currently under resourced and ongoing requests for 44 fire stations.

Additionally FESA is currently reviewing the risk to remote indigenous communities from fire and has established an understanding of resource requirements to mitigate this risk. These requirements centre on 5 key communities where the record of fire events and the complexity of the community, as well as its isolation, require the formation of a brigade.

**Program Objective: To provide additional capital funding to accelerate the replacement of current local government volunteer bushfire brigade fleets and provide additional tankers and stations in high risk locations, and to establish bushfire brigades in high risk remote indigenous communities .**

This proposal is focused on the following additional fire fighting resources:

Risk Profile	Region	Consideration	Resources this bid	Cost
Very High	Perth	Increased length of urban bush land interface with no increase in resources. Currently there are requests for replacement of 9 aged vehicles and provision of 1 additional tanker with 5 fire stations.	2 Tankers 2 Stations	\$250,000 X2 \$300,000 X2  -1.1 million dollars  -\$40,000 recurrent (operating)
Very High	South West	Some Shires have relied on farmer response however demographic change has resulted in loss of private equipment in response. Others such as Manjimup have semi rural settlements developing but bordered by high risk forest areas and are under resourced. Currently there are requests for replacement of 26 aged vehicles and provision of 16 additional tankers with 11 fire stations.	10 tankers 5 light tankers 5 Stations	\$250,000 X2 \$85,000 X5 \$200,000 X5  -1.925 Million dollars  - \$90,000 recurrent (operating)
Very High/High	Great Southern	Increasing industrial activity and population demographic changes along the south coast is occurring in high risk areas surrounded by	10 tankers 5 Stations	\$250,000 X10 \$200,000 X5  -3.5 Million dollars

Risk Profile	Region	Consideration	Resources this bid	Cost
		natural conservation estate. Currently there are requests for replacement of 34 aged vehicles and provision of 12 additional tankers with 14 fire stations.		-\$200,000 recurrent (operating)
Midlands/ Goldfields/ Midwest/ Pilbara/ Kimberley	Moderate to Low	Currently there are requests for replacement of 28 aged vehicles and provision of 39 additional tankers 14 fire stations.	10 tankers 5 stations	\$250,000 X10 \$200,000 X5  -3.5 Million dollars  -\$200,000 recurrent (operating)
Remote Indigenous Community Program		Establishing and equipping 5 RICs volunteer bushfire brigades.	5 Tankers 5 Operating Budgets	\$250,000 x5 \$25,000 X5 1.1 million dollars \$100,000 recurrent
Total			<b>37 Tankers 5 Light Tankers 17 stations</b>	<b>\$11.125 million dollars \$650,000 recurrent</b>