

Not Relevant



6 Cabinet Notes

Not Relevant



**605 PROJECT PHOENIX - SOUTH AUSTRALIAN COUNTRY FIRE SERVICE (CFS)
REPORT CONCERNING THE WANGARY FIRE - NOTED**

Not Relevant



TO: CABINET TO NOTE

RE: PROJECT PHOENIX - SOUTH AUSTRALIAN COUNTRY FIRE SERVICE (CFS) REPORT CONCERNING THE WANGARY FIRE

1. PURPOSE

To brief Cabinet on the outcomes from the CFS Project Phoenix following the Wangary fire of 10 and 11 January 2005 and the key messages for the South Australian Country Fire Service (CFS), various stakeholders and for the Government.

2. OTHER REPORTS AND INVESTIGATIONS

A range of other reports and investigations were under way during the preparation of the Project Phoenix report. These include:

- A report on the meteorological conditions by the Bureau of Meteorology.
- A Coroner's Investigation.
- CSIRO research into the fire progression and behaviour.
- CSIRO research into the performance of buildings and structures.
- Bushfire Cooperative Research Centre research into community preparedness.
- Workplace Services – CFS fatality / burnover and serious burn accident investigation.
- The Police Commissioner's (State Coordinator's) investigations into aspects of agency planning and the operation of the Emergency Management Act.
- The Police Commissioner's (State Coordinator's) analysis of Government Radio Network (GRN) performance.
- An Independent Review commissioned by the Minister for Emergency Services and being undertaken by Dr Bob Smith.

3. BACKGROUND

On the 28 February, the Chief Officer, CFS established Project Phoenix, aimed at establishing a framework for identifying issues, developing solutions to problems, and implementing these solutions.

The underlying philosophy has been that the CFS is a learning organisation. The CFS has a well established process of debriefing and after action review which, in conjunction with the CFS Centre For Lessons Learned, their risk management and business planning frameworks and various other inter agency committees, helps identify things it wants to do differently. These actions are usually identified in the CFS Annual Business Plan.

Project Phoenix adopted the principles of:

- “No blame” The lessons learned process is not about apportioning blame to organisations or individuals.
- Identify all lessons The intent is to identify what was done well and what was not. It includes, understanding systemic issues that might not be readily apparent.
- The future The aim of the process is to enhance the performance of the organisation for the future.
- Observations are not necessarily lessons Regardless of how passionately views are held by individuals, a single observation does not necessarily translate into a widely applicable lesson.
- Consult widely Engaging with as many people involved in the incident as possible and stakeholders, ensures a balanced outcome
- Lessons are not learnt until something is done The development of lessons must be accompanied by the allocation of responsibilities, resources and milestones to ensure that steps are taken to implement change.

4. METHODOLOGY

Following a tender process, the CFS engaged an external contractor (Noetic Solutions Pty Ltd) to assist in the conduct of this process.

Information was collected from records, site visits and from people (both directly and indirectly). A key part of the Project Phoenix process included a two-day workshop. Other organisations involved in Project Phoenix included:

- South Australian Farmers Federation
- District Council of Lower Eyre Peninsula
- South Australian Fire and Emergency Services Commission (SAFECOM)
- South Australian Metropolitan Fire Service (MFS)
- Department for Environment and Heritage (DEH)
- ForestrySA
- Local Government Association (LGA)
- South Australia Police (SAPOL)
- State Emergency Service (SES)
- SA Volunteer Fire Brigades Association
- SA Bushfire Prevention Advisory Committee
- CFS volunteers from every CFS Region.

Over 396 observations were collected. Through a process of aggregation and removal of duplication, this reduced to 107 observations. Thirty eight (38) recommendations have been made with many further actions identified.

Recommendations are made in eight thematic areas:

- Prevention
- Community information and awareness
- Planning
- Training
- Information and intelligence

- Command, control, coordination, leadership and management
- Assurance
- Miscellaneous.

5. STRATEGIC ISSUES

At the outset it must be reinforced that **South Australia** has a history of major impact bushfires. Fires such as the **Wangary** fire have happened in the past and will occur again in the future. Any bushfire has many variables in fuel, weather and topography. With the range of actions and reactions of firefighters, emergency services and the community, there are many factors and outcomes possible from any bushfire event. The Wangary fire on the 11 January was one of the most extreme bushfire events ever recorded in Australia.

There are a number of strategic issues from the Project Phoenix report that Cabinet should note:

Firstly, it is proposed that there be a **review** of the bushfire fire prevention section of the **Fire and Emergency Services Act 2005**. The intent is to include changes that reflect contemporary consultation and community involvement, transcend local government boundaries and focus on mitigation, preparedness and response as well as prevention.

Secondly, it is proposed that the operational chain of command be reviewed so as to allow for **key volunteer leaders** to be elected from a "pool" of suitably "competent" persons. This proposal will need to be managed carefully and sensitively to maximise acceptance by all volunteers.

Thirdly, it is of concern that there is a perception in some elements of the **Lower Eyre Peninsula** community that the **CFS** alone will always have the capacity to protect them from harm from all bushfires. We must continue to reinforce the need for self-reliance for bushfire (and other emergencies) within the community. As the recent Council of Australian Governments (COAG) Inquiry into Bushfire Mitigation and Management found, all Australians need to develop a culture of "living with fire" and developing whole of community resilience to bushfire. An ongoing challenge for all agencies and for government is to reinforce the need for a sense of mutual obligation amongst community members in emergency preparedness. By achieving this, agencies such as the **CFS** will not be seen as "doing it to" the community, rather, to be "doing it with" them.

Finally, it should be reinforced that the **CFS** is a predominantly volunteer organisation. The ability of the **CFS** to achieve its community safety objectives relies primarily on the competence, support, motivation and sacrifice of our volunteers. A second, but just as important resource, is the support to the **CFS** demonstrated by the community and the support and resources provided by government.

The impact of negative media, and of the various investigations and a Coronial Inquest, coupled with the talk of civil legal action (including class action)

against the CFS, may result in far reaching consequences for the CFS, the community and for the South Australian Government. Legal and investigative processes act as a strong disincentive to CFS volunteers generally, but particularly for the CFS leaders (both volunteer and paid). Many volunteers are carefully watching as the Coronial and legal process unfolds and are questioning: "Is it worth the effort?"

Key issues for the CFS

Some things went well (notably, many of these things were weaknesses following the 1983 "Ash Wednesday" fires):

- performance of teams on the fireground
- safety procedures and Personal Protective Clothing (PPC)
- safety equipment
- firefighting equipment
- relationships with external agencies was generally positive and beneficial.

Some things were found wanting. These include:

- community preparedness for and understanding of the bushfire risk
- aspects of command, control and coordination
- understanding of fire behaviour
- basic firefighting skills.

Grouped findings from the Project Phoenix Lessons Learned report are presented below.

Prevention

In some areas of the State, particularly on the West Coast, local government appear to be increasingly unwilling or unable to continue a primary role in fire prevention. The result can be an under commitment to fire prevention in some areas.

There is concern about restrictions on burning in native vegetation. There is a lack of understanding about the exemptions for fire prevention in the *Native Vegetation Act 1991*.

Changed farm management practices including complete cropping, "no-till" and maximum tillage have significantly increased the amount of fuel available for a fire in cropping farms. At the same time, the number and standard of firebreaks has declined.

The fire prevention planning framework does not reflect contemporary fire management thinking. The current framework does not embrace a broad "community safety" and "mitigation" approach and does not engage specific groups in the community sufficiently well. Current legislation focuses on local government boundaries, which are not always appropriate (eg. Lower Eyre Peninsula and City of Port Lincoln).

Recommendations:

1. *Enhance CFS prevention activity*
2. *Implement actions identified in annual plan*

Community awareness and information

Many in the community were complacent and ill prepared. There is a perception amongst some in the community that fire protection and fire management is the role of the CFS "alone", rather than as a multi-layered community obligation.

Key bushfire safety messages were not understood. Examples include: confusion about the "Stay or Go" message; and misunderstanding of the bushfire "Phased Warning" system.

The information expectations of the community for this "peak" event were not met.

Recommendations:

3. *Review and redevelop Phase Warning system*
4. *Review and redevelop community warning systems*
5. *Understand and enhance community awareness programs and outcomes*
6. *Implement actions identified in annual plan*

Planning

The planning framework in the CFS is being inconsistently implemented.

Planning needs to incorporate local knowledge and use geospatial information systems to improve information flow and intelligence capability.

The scale of communications traffic overwhelmed the capacity of communications systems. This severely impacted information flow. The CFS needs to train to operate within the technical limitations of existing communications systems.

The CFS media plan was overwhelmed by the scale of media interest.

Recommendations:

7. *Develop and implement GIS capability*
8. *Enhance media capability*
9. *Review operations communication system*
10. *Enhance operational planning capability*
11. *Build a comprehensive lessons learned capability*
12. *Implement actions identified in annual plan*

Training

High quality training programs exist, but greater emphasis needs to be put on: safety; radio communications; farm fire units; incident management; fire behaviour and fire prediction; basic rural fire suppression tactics; and the provisions of the *Emergency Management Act 2004*.

Some volunteers serve for many years without skills training being updated.

Recommendations:

13. *Develop a training continuum*
14. *Develop communications training*
15. *Implement an annual training cycle*
16. *Review basic rural firefighting training*

17. *Develop a framework for emergency management training for CFS personnel*
18. *Implement actions identified in annual plan*

Safety

Safety procedures and equipment generally worked well. However the "safety culture" being promoted in the CFS is not endemic.

Recommendations:

19. *Continue introduction of improved safety equipment*
20. *Enhance operational safety awareness*
21. *Implement actions identified in annual plan*

Information and intelligence

Communication of important information and warnings in the lead up to and during the course of the fire remains a significant challenge.

There is not an operational culture of sharing information at all levels in the CFS.

There is scope to improve the systems for information and intelligence processing and capability, including greater use of technology.

Recommendations:

22. *Develop a culture of reporting and sharing of information*
23. *Enhance the information sharing capability*
24. *Develop an intelligence capability, including threat analysis*
25. *Review Australian Inter-Service Incident Management System¹ (AIIMS) framework for the intelligence function*
26. *Implement actions identified in annual plan*

Command, control, coordination, leadership and management

Agency interaction went well.

There is scope to improve the understanding of command, control and coordination and enhance systems for implementation and their understanding across the CFS.

There is potential for the State Emergency Management Committee to adopt a common "whole of government" system of incident management.

The application of incident management structures can be improved through more training and regular exercises.

Recommendations:

27. *Review role, procedures, relationships between State Coordination Centre (SCC) and Regional Coordination Centre (RCC)*

¹ AIIMS is a system of incident management that has been developed by the Australasian Fire Authorities Council (AFAC) and has been adopted by all fire agencies in Australia. AIIMS was adapted from a similar system that was developed in North America in the late 1970's. The North American system has recently been mandated by the United States Department of Homeland Security for all U.S. Federal agencies. Following a review of AIIMS in 2003, many South Australian Government agencies, as well as emergency services, have adopted the system. AIIMS is based on a structure that recognises four functions of incident management: control, operations, planning and logistics.

28. *Review command, control and coordination system in conjunction with the chain of command*
29. *Enhance relationships and active interaction with partner agencies*
30. *Enhance application of Australian Inter-Service Incident Management System (AIIMS)*
31. *Enhance CFS leadership development and support*
32. *Implement actions identified in annual plan*

Assurance

The system of annual assurance of bushfire readiness and effectiveness needs to be enhanced so that the Chief Officer is aware of the strategic strengths and weaknesses across the State.

Recommendations:

33. *Develop a comprehensive operational assurance capability*
34. *Implement actions identified in annual plan*

Miscellaneous

The management of farmer firefighters and their resources can be improved by reinforcing "best practice" across the State.

Local aircraft need to be formally included in aerial firefighting arrangements and plans.

The appointment of CFS volunteer leaders is based on election, with competence being the perception of the group. Greater emphasis needs to be placed on a structured system for incident management based on assessed competence.

Recommendations:

35. *Develop the tools and practice to work better with private units and other local resources*
36. *Review the process of election of officers to volunteer positions*
37. *Develop a program to train personnel in and promote the role of, prevention in brigades*
38. *Implement actions identified in annual plan.*

Actions being taken by the CFS

The key message is that the CFS has quickly analysed important issues from the Wangary fire and has identified immediate actions. These actions are built into the 2005/06 CFS Annual Business Plan, developed in May and June 2005. Actions in this plan are found at Appendix A.

The CFS has already commenced implementation of many of these actions. The 2005/06 Annual Business Plan will need to be flexible. The plan will have to be reviewed and updated after the report of the Independent Reviewer, Dr Bob Smith, and after the Coroner's recommendations are handed down.

Possible issues for South Australia Police (SAPOL)

- Roadblocks and the denial of access to properties by local landowners returning to their properties during the fire.

- Timing of and triggers for “**D**eclaration” under the *Emergency Management Act 2004*.
- Pre fire season exercises at Zone Emergency Operations Centre (ZEOC) should be considered.
- With the CFS, continue to develop an enhanced intelligence capability in bushfire situations.

Possible issues for Department for Environment and Heritage and Department of Water, Land and Biodiversity Conservation

- Roadside vegetation controls.
- Controls over burning off in native vegetation.

Possible issues for Local Government

- In many areas, Local Government do not really want to take the lead in bushfire prevention.
- Local Government do not adequately resource fire prevention, mitigation and management.
- City of Port Lincoln not covered by a Fire Prevention Committee.
- Confusion as to role of Local Government on the day and their integration with CFS resources.

Possible issues for State Emergency Management Committee (SEMC)

- SEMC need to consider whether South Australia should adopt a common incident management system.
- SEMC need to consider whether South Australia should adopt a common policy and procedure on community warnings.
- SEMC need to consider whether South Australia should adopt a common policy on evacuation.
- SEMC need to consider whether South Australia should adopt a common policy on safe refuge areas.
- In some areas there may be uncertainty about Zone Emergency Coordination arrangements and triggers.

Possible issues for Government

- Resourcing for the CFS (particularly in relation to numbers of staff to volunteers compared to other states).
- New programs and extension to some existing programs, will be the subject of budget bids through the bilateral process.
- Need for review of the *Fire and Emergency Services Act 2005* in respect of bushfire prevention and mitigation.
- Long term consequences for emergency services volunteers from Coronial and legal processes.
- Potential civil action (including “Class Action”) against the CFS.

Financial implications

The cost of the independent contractor used for Project Phoenix was \$120,000. The contractor was selected after a tender process.

Research by the Bushfire Cooperative Research Centre (Bushfire CRC) and the CSIRO is subject to a Memorandum of Understanding between the CFS, the Coroner and the Bushfire CRC. The CSIRO investigation has cost \$100,000 so far. It is expected that the final cost will be up to an additional \$50,000. This will be a cost pressure at the mid year budget review.

The CFS will need to deploy key staff to assist in the preparation for the Coronial Inquest. Also, there will be additional costs associated with the appearance of witnesses. This will be a cost pressure at the mid year budget review.

There will be a number of projects, arising from Project Phoenix (and possibly from Dr Bob Smith's report and the Coroner's recommendations) that will form the basis of budget bids over the next 12 months.

There may be further significant costs associated with any civil action against the CFS or the Government.

Legal / liability implications

The Crown Solicitor has been briefed. A senior solicitor has been appointed to act for the CFS, SAPOL and the Government for the Coronial Inquest. The Crown Solicitor has also appointed a senior solicitor to lead a team in preparation for civil litigation against CFS.

CFS advice is that charges that have been laid against a person in relation to the cause of the fire are likely to be heard before the Coronial Inquest commences.

The South Australian Government Captive Insurance Corporation (SAICORP) has also been briefed. We have been advised that SAICORP has also briefed their re-insurers.

Both the Crown Solicitor and SAICORP have been provided with a copy of the Project Phoenix report. They are accepting of the fact that the report needs to be made available.

Release of the Project Phoenix report – key talking points

Release of the Project Phoenix report is subject to a separate communications strategy. The key points are:

- The Project Phoenix Lessons Learned Report will be available to those who want it.
- CFS will commence a series of briefings of its volunteers and staff and other stakeholders at various locations around the state.
- In "roadshow" presentations to CFS personnel, the focus will be "forward looking" (to future actions and changes), rather "backward looking" (what happened).
- The CFS is prepared to discuss those aspects of the report that focus on looking forwards. It is not prepared to discuss aspects of the report that look backwards. This is because the Project Phoenix report was never intended to be a comprehensive analysis of what happened at the Wangary fire. Rather, the project aimed to establish a framework for identifying the issues, developing solutions and then implementing them.

- The report had limited resources to gather information. Neither the project team or the CFS has had access to the CSIRO and Bushfire CRC reports, the Police Investigation or the report by the Independent Reviewer. Because of this, it is not appropriate for the CFS to make further public comment on the fire or the circumstances around the management of it. Those matters are rightly for the Coroner, who will have access to all the information available, including the report of Project Phoenix.
- The Project Phoenix report has been sent to the Coroner. The CFS will continue to fully cooperate with the Coroner and his investigators.
- Should there be any civil action, then CFS and the Government will meet their legal responsibilities.
- Should there be any media enquiries, the CFS Chief Officer will be the sole CFS spokesperson on the issue.

Who has been consulted in preparing this briefing?

The following individuals and parties have been consulted in the preparation of this briefing:

- Minister for Emergency Services
- Minister for State/Local Government Relations
- Chief Executive and Deputy Chief Executive, Department of Justice
- Chief Executive, Department for Environment and Heritage
- Chief Executive, Department for Water, Land and Biodiversity Conservation
- Executive Director, Security and Emergency Management Office (Department of the Premier and Cabinet)
- Crown Solicitor
- South Australian Government Captive Insurance Corporation (SAICORP)
- Commissioner of Police
- Chief Officer, South Australian Metropolitan Fire Service
- South Australian Country Fire Service Management Team
- Country Fire Service Centre for Lessons Learned Steering Committee

6. RECOMMENDATION

6.1 It is recommended that Cabinet note this report.

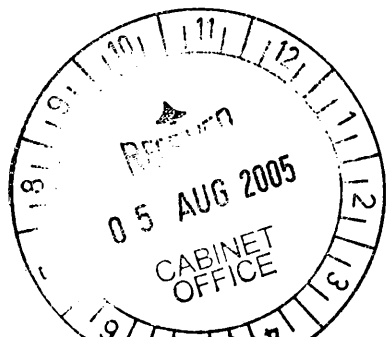
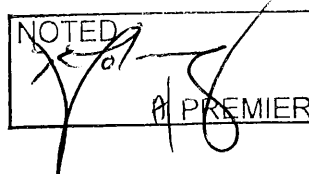


Hon Carmel Zollo MLC
Minister for Emergency Services

7 August 2005

In Cabinet

- 8 AUG 2005



APPENDIX A

CFS PROPOSED ACTION PLAN

Note: Reference should also be made to the approved CFS Annual Business Plan for 2005/06.

[Listed actions are subject to budget, operational workload and other priorities]

Prevention

- The CFS intends to develop a Terms of Reference for a review of the prevention sections of the *Fire and Emergency Services Act 2005*.
- The CFS and Planning SA are in the final stage of consultation for a review of Bushfire Planning Amendment Review (PAR). This PAR will extend the number of "bushfire prone" areas to include parts of the West Coast, Yorke Peninsula, Mid North, Kangaroo Island and the South East.

Community awareness and information

- The CFS, in conjunction with the Bushfire Cooperative Research Centre, intends to analyse community behaviours and needs during a bushfire.
- The CFS, in conjunction with the national review of community warning systems, intends to review, then develop and implement a revised community bushfire warning system.
- The CFS intends to review and develop a revised policy for the use of CFS sirens for community warnings during emergencies.
- The CFS intends to, prior to the next bushfire season, coordinate an exercise on the revised bushfire warning system.
- The CFS intends to, in conjunction with other agencies and jurisdictions, investigate alternative systems and technologies for delivering public warnings.
- The CFS intends to develop a revised system for providing information to the community for all aspects of bushfire management and mitigation.
- The CFS intends to seek to extend and expand the Community Fire Safe and Bushfire Blitz community bushfire awareness initiatives.
- The CFS intends to, in conjunction with the Department of Education and Children's Services (DECS), develop a bushfire education program that links with DECS curriculum.
- The CFS intends to, in conjunction with DECS, assist with bushfire planning in identified high risk schools.

Planning

- The CFS intends to review and re-issue operational planning documents at all levels prior to 31 October 2005.

- The CFS intends to review and document the role and relationships of various incident control and coordination centres.
- The CFS intends to develop an intra-state deployment plan.
- The CFS intends to prepare a strategy for an aviation plan that includes the criteria for resource allocation.
- The CFS intends to review and re-issue the state communications plan in light of lessons from the Wangary fire.
- The CFS intends to audit the number of active firefighters against the current database.
- The CFS intends to develop draft position papers for the State Emergency Management Committee on evacuation, refuge areas and use of the standard emergency warning signal.

Training

- The CFS intends to audit training and skills deficiencies on a brigade by brigade basis.
- The CFS intends to prepare and deliver an "Operations Update" program for all brigades prior to the end of 2005. The Operations Update will contain key safety and management messages to address issues identified in the Lessons Learned process.
- The CFS intends to implement a brigade based framework for maintaining competencies.
- The CFS intends to develop a training continuum that includes an annual training cycle, based on operational needs.

Safety

- The CFS intends to reinforce the Safety First culture by including key firefighter safety messages in the Operations update program prior to the fire season.
- The CFS intends to audit the fire safety features on fire appliances and protective equipment.
- The CFS intends to seek additional funding to retro-fit appliances with safety features such as vehicle sprays, drop down curtains and remote pump controls.
- The CFS intends to audit current levels of protective clothing and equipment.

Information and intelligence

- The CFS intends to conduct exercises at a number of levels up to State level to test facilities, plans and information management.
- The CFS intends to investigate future Geospatial Information System (GIS) system requirements.
- The CFS intends to review current technology and report on possible systems for resource and asset tracking
- The CFS intends to document and enhance its information and intelligence capability for bushfire.
- The CFS, in conjunction with Australasian Fire Authorities Council (AFAC), intends to review the intelligence function within Australian Inter-Service Incident Management System (AIIMS).
- The CFS intends to include a segment on efficient communications in the pre-fire season Operations update program.

Command, control, coordination, leadership and management

- The CFS, with key bushfire agencies, intends to implement one pre-planned Level 3 Incident Management Team for the coming bushfire season. Further teams will be developed in conjunction with other agencies.
- The CFS intends to conduct pre bushfire season exercises to test local, regional and state bushfire preparedness for the next bushfire season.
- The CFS intends to implement a mentor program for staff and volunteers who have specialist skill requirements.
- The CFS intends to introduce retrospective basic training for incident management (AIIMS).
- The CFS intends to train key personnel in incident management (AIIMS).
- The CFS intends to, in conjunction with the State Emergency Management Committee develop training and exercise materials for aspects of the *Emergency Management Act 2004*.
- The CFS intends to initiate, via the Strategy 2020 consultation process, a review of volunteer leaders and the operational chain of command.

Assurance

- The CFS intends to develop a comprehensive capability for assurance for the Chief Officer.

- The CFS intends to initiate an independent audit and report on the preparedness of Regional Coordination and Incident Control Centres prior to the 2005/06 fire season.

Miscellaneous

- The CFS intends to investigate systems to assist in assessing the operational competence of volunteer leaders.
- The CFS intends to, in conjunction with SA Farmers Federation, develop best practice farmer firefighter guidelines.
- The CFS, with the Department for Environment and Heritage and ForestrySA, intends to develop remote (dry) firefighting teams and training materials.
- The CFS intends to, as part of the extended contract with firebombing contractor Australian Maritime Resources, use additional funding from the State Government to position two fixed wing fire bombers on the Lower Eyre Peninsula for a fixed 12 week period next fire danger season.
- The CFS intends to provide a resource to support the CFS Centre for Lessons Learned Steering Committee and to monitor the implementation of the post Phoenix operational aspects of the CFS Annual Plan.

Outcomes from the South Australian Country Fire Service

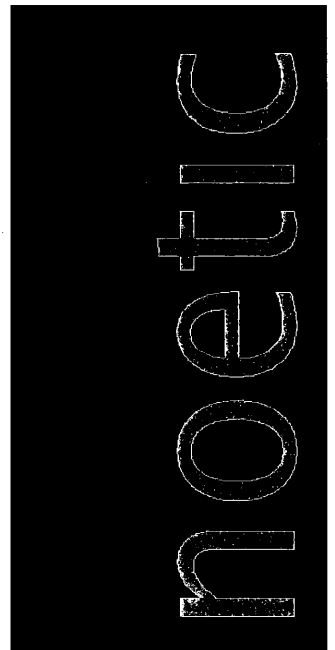
Project Phoenix

Lessons Learnt Activity

From the

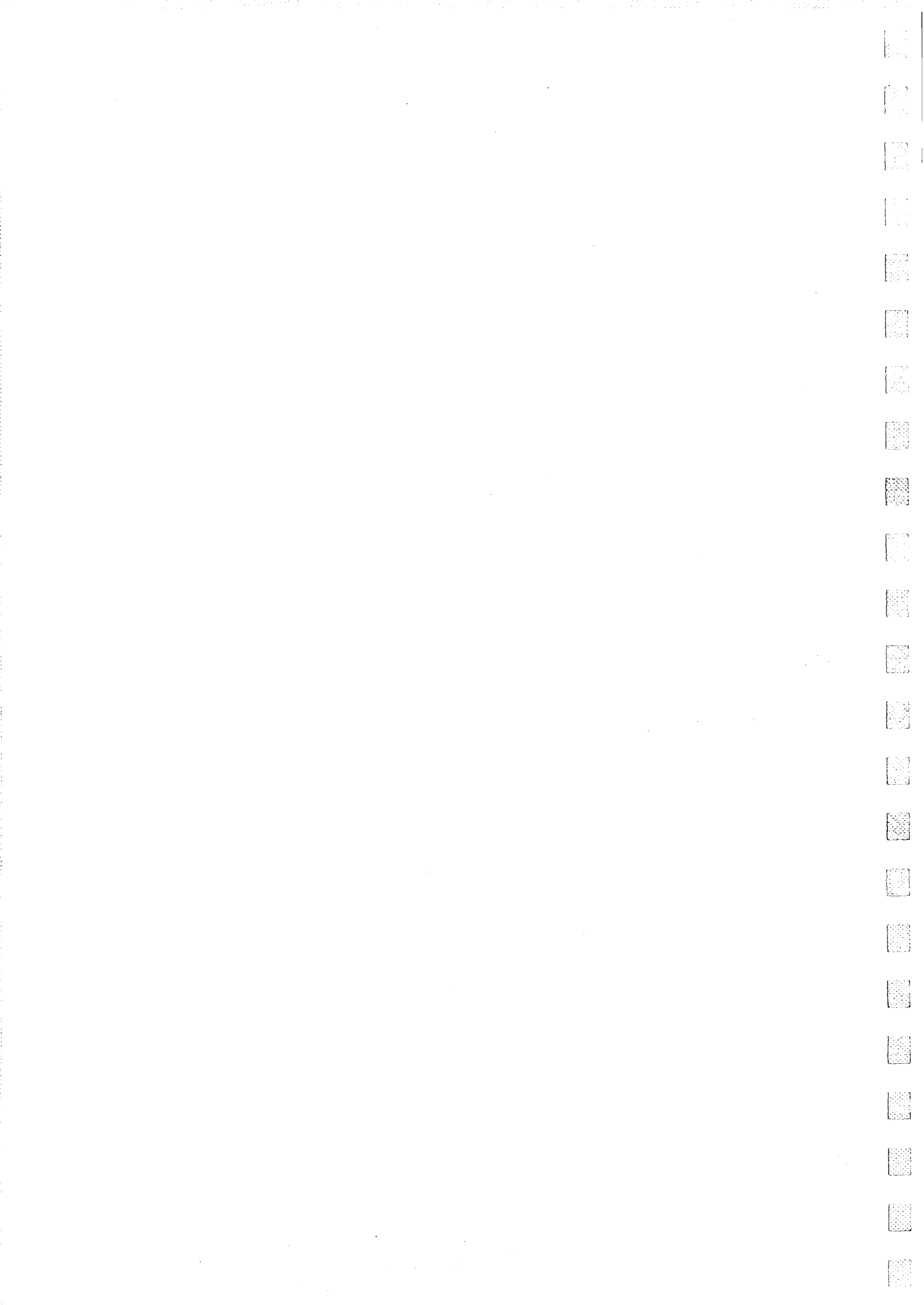
January 2005 Bushfires

May 2005



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Distribution

April 2005

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2	Project Phoenix Steering Committee		

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PREAMBLE

The events of 11 January 2005 were difficult and traumatic for the South Australian community and the Country Fire Service (CFS) with the loss of two of our own people, seven other community members and the destruction of much property and livestock. In responding to these events, the CFS established Project Phoenix in order to learn and implement the lessons from a major and devastating fire event.

The objective of the project is to work out what worked well and not so well, and to identify opportunities for improvement. We are mindful that a number of significant things could be improved – unfortunately some aspects of our command, control and coordination, our understanding of fire behaviour, as well as some basic fire fighting skills were found wanting. However, many aspects of the Service performed outstandingly - in particular, small team performance and commitment at the fire ground were excellent, and our equipment performed very well (a lesson learnt from the Ash Wednesday fires). Regardless, it would be remiss of us and contrary to our ethos, if we did not seek to learn the hard won lessons from that day.

As this report points out, identifying the lesson is comparatively easy. It is taking the actions to implement the lesson that will be difficult as the number of the lessons identified in the report are wide ranging. It will require a significant change in the way that we approach and do the business of rural fire fighting. We owe it to ourselves, and the people of South Australia, to look closely at these lessons and make sure that we implement them as quickly as possible. Inevitably, in the not too distant future, there will be another major fire event and we must be seen to have learnt from the past.

The Project Phoenix Steering Group and Project Team

**OUTCOMES FROM THE SOUTH AUSTRALIAN COUNTRY FIRE
SERVICE PROJECT PHOENIX
LESSONS LEARNT ACTIVITY
APRIL - MAY 2005**

*The future is not about future decisions, rather it is
about the future of present decisions.*

Peter Drucker

References:

- A. Memo *Project Phoenix Wangary Fire Lessons Learnt Project* dated 28 February 2005

INTRODUCTION

Background

1. During the period 10 and 11 January 2005, South Australia was affected by a number of fires. The South Australian Country Fire Service (CFS), as lead combatant authority, responded to these fires with the assistance of a number of other agencies. The fires resulted in nine deaths and a substantial loss of property and livestock.
2. The CFS is a learning organisation. In order to best leverage the existing process of debriefing and after action review, a lessons learnt project, entitled Project Phoenix, was initiated by the Chief Officer (reference A). This report outlines the findings of the project and includes a description of the approach and methodology employed.
3. This project does not purport to provide a forensic analysis of the events nor provide an understanding of the details of individual and collective actions. Rather, it is an analysis of observations of the operational performance of the CFS in order to determine how the CFS needs to operate in the future and what needs to be done to make that a reality. Many of the issues raised are not issues for CFS to deal with alone, rather they will require a 'whole of community' response to rectify.

Aim

4. The aim of this report is to detail the lessons and implementation actions from the bushfires of January 2005.

Event Description¹

5. South Australia experiences a fire danger season each year, its start and conclusion, is dependent on the curing of grassland fuels, dryness of forest fuels and commencement of the winter rainfall period. The 2004-05 fire danger period was a typical year for South Australia, with fuels ready to burn in many parts of the State by November.

6. The CFS has established protocols for its preparedness and activation for bushfire response, dependent on forecasted weather conditions. A weather forecast received by the Bureau of Meteorology on 10 January 2005 triggered these preparedness measures, and consequently the CFS State Coordination Centre (SCC) organised a weather teleconference with the CFS Regions, Bureau of Meteorology and Department of Environment and Heritage to discuss the conditions and actions for the following day. The State Emergency Operations Centre (SEOC) located in the Police communications building had been activated for 11 January 2005 due to the forecast conditions.

7. Prior to the teleconference, CFS Region 6 in Port Lincoln reported that a fire had started burning in the vicinity of the settlement of Wangary in the Lower Eyre Peninsula.

8. The teleconference was held at 1630 hours with warnings that extreme fire danger was being forecast throughout the State. The conditions were reported to be worse than that experienced for several years by the entire State. At this time Region 6 reported the fire at Wangary was small, there was confidence the fire would be contained, the resources to be committed overnight were detailed, and no additional State support was required.

9. On 11 January 2005, at 0800 hours, another weather teleconference was conducted, reconfirming the forecast of extreme fire danger conditions. The levels of preparedness of CFS Regions were checked and from this the decision to staff the SCC was made. CFS Region 6 reported at the teleconference that the Wangary fire had burnt 1,800 hectares with the fire contained by dozed breaks all around the fire. There was no request for aircraft and Region 6 had adequate resources for the day. As the day progressed the liaison officers from various Government agencies were sent to the SCC.

10. At 0958 hours the Regional Commander of Region 5 requested a third bomber be dispatched to a fire at Rendelsham in the Lower South East of South Australia. This fire was quickly brought under control. At 1006 hours the SCC received advice that the fire at Wangary had broken containment lines. At 1037 hours Region 6 requested a bomber for the fire at Wangary, with the aircraft being dispatched after its return from Rendelsham at 1126 hours. Extreme fire danger conditions had been reached in many parts of the State by this time.

1. This narrative was sourced from documentary evidence.

11. Bombers had been dispatched to reports of fires in the Mount Lofty Ranges, but nothing was found, until a report at 1300 hours of fires in the Mount Bold area and then the Mount Osmond area near the South Eastern Freeway. When the Mount Bold fire was contained the bombers were deployed to Mount Osmond.

12. During the morning and afternoon of 11 January 2005, a series of emergency community warnings were released by CFS through the media for the Rendelsham, Wangary and Mount Osmond fires.

13. The severity of the developing emergency on the West Coast emerged as reports of deaths and community losses were received. The fire was eventually contained in the following days, burning in excess of 77,000 hectares, causing nine fatalities, destroying 93 homes with substantial losses of stock, and community and farming infrastructure.

14. The fire at Mount Osmond was contained on 11 January and burnt 120 hectares with three buildings destroyed.

15. The fire at Rendelsham burnt 12 hectares with minimal damage.

APPROACH

16. **Steering Group.** A steering group was established by the CFS Chief Officer on 28 February 2005. The terms of reference for the group and its membership are attached as enclosure 1. Membership of the group was designed to include key stakeholders and those with the responsibilities for implementing the project's outcomes.

17. **External Contractors.** In order to utilise broader expertise in the development of lessons, a tendering process was implemented to find a suitable organisation to assist the project. The successful company was Noetic Solutions Pty Ltd (Noetic). The Noetic team worked closely with the steering group to develop the project outcomes.

18. **Conceptual Approach.** The approach taken to the lessons learnt process is summarised as:

- a. **No blame.** The lessons learnt process is not about apportioning blame to organisations or individuals.
- b. **Identify all lessons.** The intent of the process is to identify what was done well and what was not. It includes understanding systemic issues that might not be readily apparent.
- c. **The future.** The aim of the process is to enhance the performance of the organisation for the future in order that mistakes are not repeated and all can learn from hard won lessons.
- d. **Observations are not necessarily lessons.** Regardless of how passionately views are held by individuals, a single observation does not necessarily translate into a widely applicable lesson.
- e. **Consult widely.** Engaging with as many people involved with the incident as possible and stakeholders, ensures a balanced outcome.

- f. **Lessons are not learnt until something is done.** The development of lessons must be accompanied by the allocation of responsibilities, resources and milestones to ensure lessons are in fact learnt.

19. People interviewed by the Noetic team were briefed using the briefing note attached as enclosure 2. Members of the CFS were advised of the intent of Project Phoenix through a fact sheet (enclosure 3) and other media such as the *Volunteer* magazine.

Methodology

20. **Information Gathering.** The initial part of the project dealt with the collection of information. Information sources included:

- a. People – either directly or indirectly involved in the incident, including non-CFS personnel (a schedule is attached as Annex E).
- b. Documentation – a wide range of documentation was considered, which this included:
 - i) Chief Officer Standing Orders and Standing Operating Procedures,
 - ii) Operations Management Guidelines,
 - iii) Documentation related directly to the incident including CFS documentation and media reports.
- c. Visit to the fire ground – members of the Project team visited the fire grounds on the Eyre Peninsula and Mount Osmond.
- d. A brief review of information from previous major fire events over the past 50 years.

21. **Analysis.** The information collected was analysed to determine pertinent observations. These were divided between those that were clear lessons with straightforward actions needed and those that were not. The observations were discussed at a follow on workshop (see paragraph 22). The classification of observations was based around Emergency Management Australia's comprehensive approach to emergency management (*Prevention, Preparedness, Response and Recovery [PPRR]*). In addition, observations that had wide systemic implications were grouped in a separate category entitled *Organisation*.

22. **Workshop.** A workshop was conducted on Sunday, 1 May and Monday, 2 May 2005 in Adelaide. The aim of the workshop was to determine which observations were lessons and to develop the plan to implement them. Unfortunately not all observations could be covered in the time available. However, lessons were prioritised prior to the workshop and the highest priority observations from each category were addressed over the two days. The workshop program and list of attendees is attached as enclosures 4 and 5 respectively. Included in the workshop was an examination of lessons learnt from previous events and whether they had been successfully implemented.

23. The key outcome from the workshop was agreement on the lessons to be learnt from the observations and this included the wording of the lesson. Once agreed as a lesson, action to implement the lesson was developed

through group discussion. This information was captured on the day and is included in Annex A.

24. A number of stakeholder agencies and organisations were represented at the workshop. These included:

- a. South Australian Department of Environment and Heritage,
- b. South Australian Farmers Federation,
- c. South Australian Fire and Emergency Services, Commission,
- d. Forestry SA,
- e. South Australian Local Government Association,
- f. South Australian Police,
- g. State Emergency Services,
- h. South Australian Volunteer Fire Brigades Association, and
- i. South Australian Bushfire Prevention Advisory Committee.

25. Finalisation. The outcomes from the workshop were then finalised and the report and way forward developed. During the development of the final report, Project Phoenix personnel were invited to the CFS planning activity on 10 May 2005. Lessons and their associated actions were incorporated into the development of the CFS 2005-2006 Annual Plan. A brief on the report was then presented to the Chief Officer, some members of the CFS Board and other key officials.

Observations from Previous Major Events

26. A review of recommendations and lessons from previous major fire events was undertaken. While not exhaustive a number of useful observations were made from this analysis. The documentation consulted is included in Annex F.²

27. Each year South Australia has a fire danger period from November to April, with its start and conclusion being dependent on the curing of grassland fuels, dryness of forest fuels and commencement of the winter rainfall period. A bushfire can cause a major impact on days when there are very hot, dry and windy conditions followed by a cooler but blustery change of wind direction. Major impact fires on communities, rural infrastructure, forest and bushland areas in South Australia are characterised by their rapid development into uncontrolled fires on such days, with control difficult if not impossible until extreme fire conditions ease. With the exception of large nature reserves, South Australian landscapes typically have multiple land uses with discontinuous fire fuels, and therefore fires are usually contained within 12 hours of ignition. This is unlike the vast forest areas of South-Eastern Australia.

2. It should be noted that documentation relating to a number of incidents could not be found by the project team.

28. South Australia has had a history of major impact fires causing significant loss of life and damage to property and the environment since settlement in the 1800s. The major fires of January 1939, Black Sunday 1955 and the Ash Wednesday fires of 1980 and 1983 are indelibly etched in the minds of many South Australians who suffered the consequences of these disastrous bushfires.

29. Generally after each of these significantly disastrous fires, there has been fundamental change to the way fire is managed within South Australia. An example, is after the Ash Wednesday fires of 1983 when there was a change of the CFS Board, new legislation introduced as the Country Fires Act, 1989, new development and building control measures for bushfire prone areas, and the development of a coordinated state-wide approach for bushfire prevention. Other changes included a CFS plant and equipment³ improvement and replacement strategy that enhanced operational capacity and fire fighter safety. The catalyst for these changes was the outcomes of coronial inquests and civil litigation.

30. It is recognised that major impact fires such as the Wangary fire of January 11 2005 will occur again and therefore CFS and the South Australian community must be better prepared for these significant events. CFS must have the systems of operation to cope with the impacts of managing a major bushfire event, to enhance its capability to control the bushfire and ensure risk to life, property and the environment is minimised.

FINDINGS

31. Approach. The project team developed over 396 observations from the review of interviews, documents and discussion of the events of 10 and 11 January 2005. These observations were then reduced through either aggregation of like items or discarded on further analysis to 107⁴. The majority of these issues were discussed in the workshop.

32. In order to better assist in the understanding of the lessons and implications, individual lessons were grouped into thematic areas. These thematic areas do not sit within the PPRR framework as they were found to cross over more than one element of the framework. The identification of these areas also assisted in developing an action and implementation plan. The following discussion highlights the key issues within each of these lesson areas and the highest priority actions required to implement the lessons. The thematic areas are:

- a. Prevention;
- b. Community information and awareness;
- c. Planning;

3. Both new applications and Personnel Protective Equipment were found to perform very well during the fires of 11 January 2005.

4. Note that annex A has 108 serials however serial 76 was removed due to its similarity to other serials. The serial was retained as blank for administrative simplicity.

- d. Training;
- e. Safety;
- f. Information and intelligence;
- g. Command, control, coordination, leadership & management; and
- h. Assurance.

Prevention

33. Prevention is a part of the CFS application of the Emergency Management Australia's comprehensive approach to emergency management [PPRR framework]. However, it is clearly not the responsibility of CFS alone. It is often a partnership, not necessarily an equal one, between CFS and local or state government (and community) as 6 of the 9 observations in this area confirm. Effectively engaging community stakeholders such as SAFF and LGA, is essential for sharing responsibility and accountability of the necessary actions to reduce community risk.

34. Prevention activity undertaken by local governments and Regional Bushfire Prevention Committees varies considerably. There is often a gap between the vision of CFS and local councils. CFS has an important role to play in influencing their planning. As with all partnerships, much depends on the strength of the relationship, which requires some effort to build and maintain. CFS needs to work closely with these stakeholders to capture and understand local government issues associated with the delivery of bush fire prevention functions. Once the issues are clearly understood, CFS can work with local government and bush fire committees to support the shared vision for bush fire prevention between CFS and local councils.

35. The reality is that funding and other pressure will impact upon the fire prevention activities of local councils. An example is the application and enforcement of Section 40 clearance notices, which takes up resources and budget, resulting in inconsistent application across councils. CFS must work with local councils through a redeveloped audit process so that council efforts are concentrated where community and environmental assets are most vulnerable.

36. The role of local government in relation to native vegetation is not well established. Local government and the community are uninformed about what they can do. There is a perception that the native vegetation legislation – the *Native Vegetation Act 1991* (the Act) limits prevention activities through onerous safeguards designed to protect native Australian plants. It appears that there is a lack of accurate interpretation of the Act regarding what is allowed and how to go about getting approvals. This can mean that no action is taken to control native vegetation (for fear of flouting the law) or that control takes place with no regard for the legislation. CFS can assist by providing guidance to local Fire Prevention Officers regarding powers and responsibilities under the legislation. CFS with Department of Environment and Heritage's Native Vegetation Management Branch should facilitate a partnership with local government to establish clear guidelines for fire

prevention in native vegetation. CFS should also support the South Australian Farmers Federation (SAFF) and other stakeholders to develop ways of communicating and sharing knowledge about allowable fire prevention activities.

37. The lessons identified an unfulfilled opportunity for CFS to provide a critical function for Regional Bushfire Prevention Committees. CFS should be developing a more integrated approach to regional bushfire prevention. It could do this by developing regional bushfire plans which provide a strategic overview of the region and which thereby inform regional plans. Bushfire plans could be a part of the Chief Officer's audit process (see *Assurance* section).

38. Within CFS, it is perceived that operational personnel do not want to get involved with prevention. This perception is most accurate in rural areas where, due to other commitments (such as being a full time farmer), volunteers are willing and able to respond to emergencies but little else. Certainly, recruitment focuses more on the operational side of CFS than the prevention/planning aspects. CFS needs to turn this around by recognising and promoting prevention activities as an integral core function of CFS.

Recommendation:

It is recommended that CFS:

- a. Enhance CFS prevention activity; and
- b. Implement the actions identified in Annex D (Remarks) prior to the 2005-06 FDS.

Community Awareness and Information

39. This group of observations - 13 in total - looks at community education programs, community preparedness and community information systems during the fires.

40. In general the bush fire educational programs are well received by those who attend, which is something to consolidate and build upon. However, many people within the community remained complacent and ill prepared for bush fire – even after recent experiences such as the Tulka fire (of 2001). In the Adelaide hills, people live in an area with extremely high fuel loads and inaccessible terrain and yet some will not accept that they have a responsibility to prepare their property for bush fire. This suggests that the programs may not be reaching those who need it most.

41. These observations also reveal how, for many people, the incentive to learn from experience (perhaps of others) and be better prepared for next time after a traumatic event dissipates relatively quickly as life returns to normal. These observations touch upon some deep-seated cultural and psychological issues which will not be easily fixed. Only considered, long term action will make a difference and it may not bear real fruit for some time.

42. These observations are not unique to South Australia but are of national interest. Consequently, research such as that being undertaken by the

Cooperative Research Council should be taken into account when drawing up the relevant actions.

43. The community is unclear where it should go for advice on preparedness, including advice on land management, what equipment to buy and how to operate it. A number of observations indicate that CFS is no longer seen as an authoritative source of information and advice, which clearly leaves a gap in the needs of the community. CFS needs to better understand and enhance community awareness programs and outcomes. It is well known that 'one size does not fit all' with education and training. Community programs must be designed and targeted to suit the different groups within communities, taking into account for example, age, location and culture. As noted previously, this is a long-term issue which requires a sustained approach by developing external relationships through consultation and engagement.

44. A key element of public preparedness is the 'plan to stay or go early' message. An important observation from the Project is that some residents expressed confusion about the 'stay – go early' message, misunderstanding the imperative to decide early in the day, not later when access to and from their property may no longer be possible⁵. Addressing this confusion will need to be a key element of CFS preparedness efforts.

45. The most critical observations concerned how information was relayed to the community during the fires. In particular, there was wide scale misunderstanding of the Phase Warning system. It is recognised that fast moving fires are a particular challenge to keeping the community informed. The Wangary fire in particular exposed the deficiencies of Phase Warnings, as the system did not meet community expectations for information during the crisis. The use of a numbering system did not aid understanding by the community. This needs to be changed as a priority. In reviewing the phased warning system, should the underlying messages be found to be appropriate, then the warnings need to be in 'plain language'. As well as this, the systems that CFS rely on, for communication to the community on real time basis, such as the CFS regional offices and call in 'hotlines', did not cope with the demands of the day. Consequently, CFS must review and develop the Phase Warning system – this is a high profile, high risk issue which must be carefully managed. However, it is also a potential quick win for CFS as it is something within the control of the Service which, if done well, will yield immediate, tangible results.

5. See Recommendation 8.7 of Council of Australian Governments, **National Inquiry on Bushfire Mitigation and Management**, 31 March 2004.

Recommendation:

It is recommended that CFS:

- a. Review and develop the Phase Warning System;
- b. Review and develop community information systems;
- c. Understand and enhance community awareness programs and outcomes; and
- d. Implement the actions identified in annex D (Remarks) prior to the 2005-06 FDS.

Planning

46. The analysis of the events of 10-11 January revealed a total of 17 lessons related to CFS operational planning.

47. Prior to, and during the events of 10-11 January there was inconsistent operational planning, which was found at all levels of the CFS. Comprehensive planning regimes will markedly assist CFS during large and complex events. While a number of planning activities were thorough and well conducted, achieving this across the organisation is one of the key lessons. In particular, the preparedness system is not well understood and is not effectively implemented. CFS also needs to better incorporate local knowledge into its planning processes, both in prevention and on operations. Enhancing the CFS planning capability is not a short-term activity and will require a regular and critical review of the effectiveness of its ongoing planning activities.

48. Good mapping and geospatial data can significantly enhance planning efforts for bushfire events. The analysis of the events of 10-11 January highlighted that CFS has limited Geospatial Information Systems (GIS) to support its planning and operations. CFS has made progress with the development and gradual introduction of up to date mapping for use in appliances and vehicles.⁶ However, CFS makes limited use of GIS technology and has no access to real time GIS assets⁷. A real time GIS capability would have eliminated the confusion about the size of the Wangary fire on 10 January. A GIS capability would not only assist with the development of plans prior to an event but would also contribute to information and intelligence requirements. Enhancing this capability is likely to be expensive and take time to introduce.

6. It should be noted that at the time of the 10-11 January fires, Region 6 on the Eyre Peninsula had not received the new map books, which are being developed and distributed one region at a time.

7. For an understanding of the use of satellite imagery see www.apogee.com.au, which includes a number of images from the Eyre Peninsula on 12 January 2005.

49. The CFS media plan was overwhelmed by the scale of media interest in the events of 10-11 January 2005. For example the CFS Region 6 office was inundated by media crews and this contributed to the difficulties the CFS staff were experiencing. The media plan requires review to enable it to deal with complex and multiple events, and must also extend to the regional level. The plan will require validation through exercising and this should be done in conjunction with stakeholders and media outlets⁸.

50. The GRN technically performed well during the events of 10-11 January 2005, however, the scale of communications traffic clearly overwhelmed its modest capacity. Consequently, the passage of information on the fire ground and to RCC was severely hampered and impacted upon operational effectiveness. Increasing the capacity of GRN is the subject of a number of observations and will realistically take some time to implement, particularly as it is resource intensive and requires external agency involvement. In the meantime, CFS must adapt its communication plans to the current capacity of GRN. This includes enhancing communications training of CFS personnel (see *Training* section).

51. Planning capability can be enhanced through accessing lessons and knowledge from past events. CFS has made an important start in developing a lessons learnt capability. It has instituted After Action Reviews, although they are not being uniformly applied and the process needs strengthening and refinement. CFS has also made a start through the establishment of a lessons learnt committee. In order for it to be effective it will need to be resourced and develop a robust lessons process. Sharing the knowledge from this process will continue to enhance the achievement of the 'learning organisation' goals of CFS.

Recommendation:

It is recommended that CFS:

- a. Develop and implement the use of GIS in preparedness and response capabilities;
- b. Enhance the CFS media capability;
- c. Review the operations communication system;
- d. Enhance the CFS operational planning capability;
- e. Build a comprehensive lessons learned capability; and
- f. Implement the actions identified in annex D (Remarks) prior to the 2005-06 FDS.

8. See Recommendation 7.1 from of Council of Australian Governments, **National Inquiry on Bushfire Mitigation and Management**, 31 March 2004.

Training

52. When reviewing training observations and lessons, it should be acknowledged that high quality training programs already exist and that they are effectively used each year. Training in CFS, however, can be characterised to a certain extent as ad hoc as it is largely voluntary and is neither audited nor enforced. There is some cultural resistance to training – it is seen by some volunteers as an onerous burden on their time to be avoided and current CFS systems and processes allow this avoidance to take place. It is essential to ensure that personnel have the minimum amount of training to operate safely and that training resources are appropriately allocated. These issues can be addressed through the use of a training continuum⁹ and an annual training cycle.

53. It could be argued that almost all of the Project Phoenix observations and lessons with any kind of operational or skills focus will have training as part of their remedy. To make this more workable, training is the focus of 10 specific observations. The issues concerned are:

- a. Safety;
- b. The lack of competency periods for basic fire fighting;
- c. The imbalance of who gets what training in relation to operational outcomes or needs;
- d. Communications – especially use of Government Radio Network (GRN);
- e. Farm Fire units;
- f. AIIMs;
- g. Threat analysis and knowledge of fire behaviour;
- h. Degrading rural fire suppression skills; and
- i. Emergency management training.

54. **Safety.** Safety is of overriding importance for CFS – as evidenced by the Safety First culture promoted by the Chief Officer. Safety awareness should be endemic throughout all of CFS but it is not. There are safety checklists and procedures in place, some of which were recently introduced, but these are not necessarily known and/or followed across the Service. Consequently, CFS must continue to emphasise safety in its training and develop new training as identified by the lessons process.

55. **Communications.** Communications training has so far concentrated on the skilling of staff and volunteers in the mechanical usage of radios. The Project Team uncovered widespread dissatisfaction with GRN capacity during large-scale events. For the purpose of this report, this dissatisfaction is noted

9. A training continuum provides a three dimensional view of skills and competencies in the workforce. It identifies the minimum skills and competencies required across the workforce in terms of time and position.

but treated as a separate issue outside of the Report's scope and should be referred to the State Radio System Ministerial Advisory Committee and the South Australian Emergency Management Committee for consideration. The focus of this Report is how CFS can communicate within the limitations of the GRN and other communication systems and how training can support this.

56. **Farm Fire Units.** Farm fire units¹⁰ are clearly a valued and enduring part of CFS's fire suppression capability. By definition, private units are independently owned and operated outside of the CFS immediate control. There are wider issues associated with private units including liability, membership and how they are coordinated at the fire ground or, perhaps for reasons of safety, excluded from the fire ground. To better work with private units CFS needs to ensure its training includes working with private units and providing appropriate training for private units to work with CFS on the fire ground.

57. **Australian Inter-Service Incident Management System.** AIIMS is an incident management system that works well where it is embraced. While a proven system, there does appear to be some reluctance to apply the framework. It is observed that some volunteers do not regard incident management as 'real firefighting' and they are reluctant to step back from fighting a fire to managing the fire. These issues will need to be overcome. Training must focus on the practical application of AIIMS rather than simply providing information on the framework.

58. **Threat analysis and knowledge of fire behaviour.** The issue of a lack of a comprehensive process for threat analysis is discussed in *Information and Intelligence*. Once developed, training on the practical application of the process needs to be rapidly developed and implemented. The lack of a threat analysis process is compounded by a perceived general lack of knowledge about the principles of fire physics. Knowledge of these principles enables accurate predictions about fire behaviour and therefore, informed decisions about how to fight the fire and inform the community. The content of the CFS *Basic Bushfire Fighting Skills* training package covers these topics very well. However, CFS will need to review the effectiveness of the application of this training, particularly at the Brigade level.

59. **Rural fire suppression skills.** The rural fire suppression skills are degrading over time as more experienced fire fighters retire from the service. This is compounded by a decreasing number of opportunities for fire fighters to gain experience in general fire management as farming practices move away from burning off. CFS is experiencing a generic succession problem. The risk is that rural fire fighting skills and knowledge will be lost unless steps are taken to pass it on to younger members of CFS.

10 'Farm Fire Unit' means equipment or machinery (including tankers) owned or operated by a private individual or body that may be used to help contain, suppress or reduce the effects of a fire. It does not include: equipment or machinery used for the private defence of domestic dwellings in a bushfire; or equipment or machinery contracted by the fire control agency. (CFS Draft Policy)

60. Other Emergency Services. SAPOL and other emergency services see it as an absolute need for CFS to be trained in their local management zones as envisaged under the Emergency Management Act. If this was understood and practiced, then culturally local CFS staff and volunteers would understand the relationship issues with other agencies and their intelligence requirements. This training would be the quickest way for local CFS personnel to understand large-scale management requirements during significant emergencies.

Recommendation:

It is recommended that CFS:

- a. Develop a training continuum;
- b. Develop communications training;
- c. Implement an annual training cycle;
- d. Review the application of basic rural fire fighting skills training;
- e. Develop a framework for emergency management training for CFS personnel; and
- f. Implement the actions identified in Annex D (Remarks) prior to the 2005/6 FDS.

Safety

61. There are five identified lessons on safety – although safety does feature elsewhere, such as in Training.

62. CFS has safety procedures and equipment that work well – such as the current style of PPE and the pull down curtain on appliances. However, as appears in the section on Training, safety awareness is not endemic throughout CFS. CFS members need be made better aware of existing methods of assessing fire ground threats – including the systems CFS has developed such as issuing 'watchouts' and recognising 'dead man zones'. The lesson for CFS is that it should continue to actively promote the effectiveness of its safety systems.

63. On a similar note, the safety and welfare team members were in place by 12 January. Their early placement certainly mitigated welfare risks. CFS should ensure that these existing systems and resource levels are maintained.

64. Another safety aspect concerns general awareness and the need to report near misses and minor injuries. Volunteer culture tends to shun this as 'making a fuss' especially if the means of reporting results in a delay to exiting the fire ground. New channels of reporting need to be developed as well as a way of teaching volunteers the benefits of reporting.

Recommendation:

It is recommended that CFS:

- a. Continue the introduction of improved safety equipment;
- b. Enhance operational safety awareness; and
- c. Implement the actions identified in Annex D (Remarks) prior to the 2005-06 FDS.

Information and Intelligence

65. The events of 10- 11 January 2005 highlighted systemic deficiencies in the CFS information and intelligence capability. This is reflected in 15 observations and lessons, some with linkages to other areas (such as command, control, coordination, leadership and management, and community awareness and information).

66. The passage of essential operational information up and down the chain of command was found to be wanting during the fire event. The failure to share operational information made it difficult for all fire commanders and coordination centres to understand the situation and make appropriate decisions. It is apparent that CFS does not have an operational culture of sharing information, with the focus of fire fighters and coordinators being to simply deal with an event. This cultural trait is of little consequence in a small-scale event, however successfully combating major impact fires requires the effective passage of operational information up and down the chain of command. Doing so will require a cultural change. This is not a simple undertaking for CFS but is necessary if the lessons from 10 and 11 January are to be learnt.

67. The effective passage of operational information was hampered by an inadequate information management capability. CFS does not have an 'end to end' understanding of its information requirements. Developing this capability will require reviewing a range of elements and it is certainly not a simple process nor a technology issue. The understanding needs to extend beyond CFS to other organisations (such as the State Emergency Operations Centre) to ensure information needs take a 'whole of agencies' approach.

68. A key lesson from the 10-11 January event is that CFS lacks a comprehensive intelligence capability to assist with the planning and preparation for major events. In particular, there is no thorough process to analyse the threat posed by the current situation and future conditions. The current AIIMS framework does not support the intelligence function and this requires review. CFS as the combatant authority, must have the capacity to know and convey to others the 'footprint' of the fire in a timely way. Other agencies demand and expect nothing less during such emergencies. The threat analysis that did occur was one dimensional and taken on face value (such as reliance on a single Fire Danger Index figure). The development of a tool (including supporting technology and capability) to understand the threat over a number of different time periods is essential. The tool will have

application at the Incident Management Team (IMT), RCC and SCC. For it to be effective it will cover a range of variables and assist with the development of contingency planning (including resource requests for strike team, aircraft, logistics support).

Recommendation:

It is recommended that CFS:

- a. Develop a culture of reporting and sharing information;
- b. Enhance the information management capability;
- c. Develop an intelligence capability including threat analysis;
- d. Review AIMS framework for the intelligence function; and
- e. Implement the actions identified in annex D (Remarks) prior to the 2005-06 FDS.

Command, Control, Coordination, Leadership and Management

69. The project team observed that during this peak event command, control, coordination, leadership and management highlighted significant opportunity for improvement. This is reflected in a total of 24 observations and lessons in this grouping. The large number of observations is indicative that the size and complexity of events of 10 and 11 January 2005 was a significant test of the command, control and coordination system.

70. The strain placed on the command, control and coordination system revealed deficiencies in a number of critical areas. Most notably it demonstrated that there is not a clear understanding of the three levels (Incident Coordination Centre [ICC], Regional Coordination Centre [RCC], State Coordination Centre [SCC]) of operational command, control and coordination. In particular, people within these centres did not understand their role and the responsibilities of their centre. This then contributed to a lack of understanding of the relationship between the various coordination centres. Addressing this issue is a major priority for CFS. In ensuring that it is effectively actioned there is a critical requirement to regularly exercise the command, control and coordination centres to develop their effectiveness. These exercises should culminate in a state-wide exercise that tests the ability of CFS to manage widespread complex events, that is, a worst-case scenario. CFS needs to ensure that its practices and exercises of large scale incidents is to the standard that allows effective integration with the planning, training and responses required by the Emergency Management Act, the SEOC and at all levels.

71. A related issue is the role of the command, control and coordination system in relation to the function of the chain of command. There appears to be uncertainty regarding the role of personnel within the chain of command and that of those appointed to manage incidents. In the typical small, isolated incidents, which characterise most CFS responses, role confusion is not an issue, but in large impact fires role confusion becomes an impediment to a

successful outcome. In reviewing these relationships, CFS will need to determine if the current relationships are appropriate and if not, amend them so that they contribute to operational effectiveness. The results of this review will then need to be incorporated into CFS doctrine and actively promoted across the organisation.

72. As with any stressful event, the fires highlighted the importance of sound leadership. While small team leadership on the fire ground was generally very good there were some instances of poor leadership at a variety of levels. This reinforces the requirement for CFS to continue to enhance its development and support of leaders across the organisation.

73. CFS utilises the Australian Inter-Service Incident Management System (AIIMS) for its incident management functions. AIIMS is not consistently applied across South Australia's emergency services, however, within CFS the AIIMS system generally works well, with the exception of the intelligence gathering capacity of some of the planning teams on 10-11 January. AIIMS was unevenly applied and this contributed to some of the poor performance outcomes. This inconsistent application of AIIMS within CFS is related to the issues of command, control and coordination, and chain of command. CFS needs to work with other emergency services and AFAC to ensure the AIIMS framework is correct and is the appropriate model for complex incident management and inter-service relationships. The South Australian Emergency Management Committee should consider whether a common system of command, control and coordination is appropriate for inter-service management of major emergencies. If AIIMS is the appropriate framework for incident management, it is essential that the system be fully integrated into all facets of CFS operations¹¹.

74. During the event CFS's relationships with external agencies were generally positive and beneficial. However, there was an ad hoc approach to the placement of CFS liaison officers and other key personnel in external organisations. Similarly, emergency service organisations and other agency representatives within CFS facilities require competency development, to ensure they assist CFS capably during incident operations. Consequently, there are important lessons in selecting and training people for their role in working with external agencies. Related to implementing this lesson is the need to exercise with other agencies in order to not only test procedures and familiarise CFS personnel with their duties, but to build relationships between people.

75. A key lesson and priority for CFS is the improvement of command, control, coordination, leadership and management. The current systems, procedures and relationships are workable for low impact and simple events however, they must be enhanced and regularly exercised to ensure they can effectively manage difficult and complex emergencies. There is no simple

11. See also recommendations 8.2 and 8.3 of Council of Australian Governments, **National Inquiry on Bushfire Mitigation and Management**, 31 March 2004. These recommendations are consistent with lessons developed during Project Phoenix.

quick fix and resources are required, but immediate actions are identified and readily achievable.

Recommendation:

It is recommended that CFS:

- a. Review the role, procedures and relationships between SCC and RCC;
- b. Review the command, control and coordination system in conjunction with the function of the chain of command;
- c. Enhance the relationships and active interaction with partner agencies;
- d. Enhance the application of AIMS;
- e. Enhance CFS leadership development and support; and
- f. Implement the actions identified in annex D (Remarks) prior to the 2005-06 Fire Danger Season (FDS).

Assurance

76. The uneven performance of the CFS over the events of 10-11 January highlighted the lack of an operational assurance capability within CFS. While there are only three observations associated with this aspect, the implementation of them is very important in ensuring that CFS is ready to meet the demands of high impact fires. In discussing this lesson it is worthwhile noting that given the extremely limited number of full time staff to support CFS, it is perhaps not surprising that this issue has arisen¹².

77. There is no comprehensive and effective mechanism for the Chief Officer to gauge the operational readiness and effectiveness of Regions and Groups within the CFS. There are mechanisms to assist with logistics and personnel related governance, however, they do not relate to operational effectiveness. Consequently, CFS needs to develop a robust operational assurance program so that the Chief Officer can be assured that the Service is capable and ready. Such a program would be linked to business and capital planning, to address any deficiencies that the program revealed.

12. There are 97 FTE for 15,000 volunteers giving a full time staff member to volunteer ratio of 1:154. By way of comparison the Australian Army's operational reserve component (the Second Division) has an estimated ratio of regular personnel to reserve personnel of 1:6.4.

Recommendation:

It is recommended that CFS:

- a. Develop a comprehensive operational assurance capability.
- b. Implement the actions identified in annex D (**R**emarks) prior to the 2005-06 FDS.

Miscellaneous

78. There are a number of lessons which do not fit easily under any of the preceding headings and are therefore dealt with here because they are still important and require definite action.

79. One group of lessons is around the use of farm fire units and other local resources. CFS is both mindful and appreciative of the assistance and support given by the community in this way and there is a long history of farm fire units contributing to fire fighting efforts. However, there are issues needing to be addressed concerning safety, training and liability. By addressing these issues, through working with stakeholders, CFS and the community will achieve better outcomes.

80. There is a high level of community interest in the role of aircraft during the fires of 10/11 January 2005. Although CFS has a planned strategy for the allocation and use of aircraft the community understanding of its application is low. Fire bombing was not observed during the project as activity that could have reduced the effects of the Wangary fire. However, the role of local aircraft for reconnaissance and intelligence was seen to make a valuable contribution. Consequently, CFS should establish guidelines for the use of local aircraft to support intelligence gathering.

81. The fires also highlighted a number of issues regarding volunteer positions. One important issue is that of the appointment of Officers by election and the question whether this results in the right people for the job. This issue is tied to prevailing legislation. It is an important issue which needs to be reviewed by CFS working with key stakeholders, notably the South Australian Volunteer Fire Brigades Association (VFBA).

Recommendation:

It is recommended that CFS:

- a. Develop the tools and practice to better work with private units and other local resources;
- b. Review the election of officers to volunteer positions;
- c. Develop a program to train personnel in, and promote the role of, prevention in brigades; and
- d. Implement the actions identified in annex D (Remarks) prior to the 2005-06 FDS.

IMPLEMENTATION

"Now this is not the end. It is not even the beginning of the end. But it is, perhaps, the end of the beginning".

Sir Winston Churchill, 1942

82. A lesson is not 'learnt' until the actions required to implement it are undertaken. Consequently, the work completed by CFS and the Project Phoenix team is not the end of the lessons process, rather it is the end of the initial phase. The success of the lessons process will be measured by the effectiveness of the implementation phase.

83. Attached as Annex B is a description of each lesson and the actions required to 'learn' the lesson. This includes guidance to implementation officers, linkages with other lessons and the CFS Annual Plan. To assist with the implementation program of recommendations, Annex D provides a summary of programs of work. This schedule groups linked lessons and actions in a program of work. It provides suggested priorities based on described criteria. This will assist with funding and resource allocation. The remarks column of the table specifies the actions that need to be undertaken prior to the start of the 2005-2006 fire danger season.

84. CFS has commenced the planning process to incorporate the changes and actions into its business plan. However, it should be noted that CFS cannot wait until budgets are allocated to commence some actions. In particular, those actions needed to be in place prior to the commencement of the 2005-2006 fire danger season may have to be funded through the current budget or from supplementary funding. Delaying commencement of these activities is likely to result in delay action and incomplete measures being in place prior to the next fire danger season.

Way Ahead

85. The success of Project Phoenix will rest on the implementation of the actions outlined in the annexes. To ensure the success of the project the following will require addressing:

- a. **Communication Strategy.** In preparing the communication strategy, CFS will need to develop a series of key messages that clearly explain the outcomes and required actions. The results of the project need to be communicated:
 - i. **Internally** to CFS. This might be done through a range of media including:
 1. Development of an easy to read brochure suitable for not only CFS personnel but also members of the wider community. The Defence brochure on the lessons learnt from the Iraq War provides an appropriate template.

2. Development of a website which might include a chat room to encourage discussion about the issues raised. This medium would be especially useful in advising members of the CFS of ongoing implementation efforts at low cost.
 3. The use of a briefing team to tour the state and provide briefings at key regional locations. Ideally this would be undertaken by CFS personnel closely involved in Project Phoenix
- ii. **Community.** The community needs to be advised of the outcomes of the project and the ongoing efforts to implement the findings. This should be done through development of a separate information brochure. The brochure and general CFS website would be important elements of this aspect of the strategy. In addition, special effort should be made in engaging the most affected communities on the Lower Eyre Peninsula.
 - iii. **Stakeholders.** A good start on working with stakeholders was made in the workshop and this should be continued. This could be through periodic briefings and written updates.
 - iv. **Government.** While government might be viewed as a stakeholder, specific communication is called for, particularly to support CFS requests for additional resources.
 - v. **Other rural fire services.** The sharing of lessons and information with other services is important and consistent with the recommendations of the recent Council of Australian Governments (COAG) report¹³. A program to inform these services through existing mechanisms (such as those provided by the Australasian Fire Authorities Council) and using the resources developed elsewhere in the communication strategy would be most efficient.
- b. **Implementation oversight.** The program of work is significant and will require close coordination to ensure its successful completion. It is suggested that an existing member of Project Phoenix, who would report directly to the Chief Officer, undertake this task. To assist the Chief Officer a steering committee should be formed and include stakeholder representation and a media adviser. The coordinating officer would coordinate effort and resources and provide information to support the ongoing communication strategy outlined above.
 - c. **External validation.** Confirming that the lessons are learnt through external validation will provide assurance to the Chief Officer and stakeholders. This need not be an onerous task and might occur at the three, six and twelve month marks after commencement of implementation.

13. Council of Australian Governments, **National Inquiry on Bushfire Mitigation and Management**, 31 March 2004. See Section 11.

Recommendation:

It is recommended that the CFS:

- a. Develop and implement a communications strategy to support Project Phoenix;
- b. Develop an implementation plan with a single responsible coordinating officer to oversee the plan; and
- c. Use external validation to confirm progress on the implementation of the lessons from Project Phoenix.

Conclusion

86. The events of 10-11 January 2005 placed a significant strain on the CFS. Many aspects of the Service's performance were very praiseworthy and reflected well on the organisation. However, as with any difficult test, a number of issues for improvement emerged. In conducting the lesson-learnt process through Project Phoenix, CFS has taken considerable effort to examine itself in light of this test and to ensure that it learns the hard won lessons of 11 January.

87. This report sets out the key issues for action to ensure that the lessons are learnt. These actions are extensive and will require some substantial change in the way that CFS approaches its business of rural fire fighting. Some will require a change in the culture of CFS and the difficulty in implementing these is not underestimated. Without these changes it is unlikely that CFS will improve its ability to combat large complex incidents across South Australia. Implementing the required changes is not the responsibility of the CFS leadership alone, it will require the active support of all members of the CFS.

88. The lessons learnt process can be a difficult one and it can be tempting to skate over painful issues. CFS has taken on this task in the most positive manner possible and as a consequence will emerge as a more effective organisation in the future.

Annexes:

- A. Summary of lessons and actions
- B. Detailed action plan for individual lessons
- C. Summary of grouped lessons
- D. Program of work to implement actions schedule
- E. Consultation schedule

F. Documentation schedule

Enclosures:

1. Project Phoenix Terms of Reference and team members
2. Consultation briefing note
3. Project Phoenix Fact Sheet
4. Workshop program
5. Workshop attendees

ANNEX A

Clause 9(1) - Internal Working Document

Annex A. Summary of lessons and actions

ANNEX B

Clause 9(1) - Internal Working Document

Annex B. Detailed action plan for individual lessons

ANNEX C

Clause 9(1) - Internal Working document

Annex C. Summary of grouped lessons

ANNEX D

Annex D. Program of work to implement actions schedule

PROJECT PHOENIX

PROGRAM OF WORK SUMMARY						
Serial	Program	Serials Nos (from annex A)	Priority (See Note)	Character (See Note)	KRA (See Note)	Remarks
Community awareness						
1	Review and develop the Phase Warnings system.	62, 90, 97	1	HR, QW	1	1. Review status of national warning system 2. Develop plain language bushfire warning system 3. Review operational management guidelines 4. Must ensure there is a warning system developed despite lack of information 5. Communicate and exercise system
2	Understand and enhance community awareness programs and outcomes.	2, 24, 25, 61, 63, 64, 89, 91, 93, 94	3	LT, ER	1	
Prevention						
3	Enhance CFS prevention activity.	3, 4, 26, 28, 29, 30, 31, 32, 33, 52	2	ER, LT	1	1. Establish LGA/CFS working group 2. Review current prevention plan audit & reporting system in terms of community impacts on bushfires
Planning						
4	Develop and implement the use of GIS in preparedness and response.	47, 80	3	Ri	2	
5	Enhance CFS media capability.	48, 98, 73	1	QW	2	1. Develop a media plan for complex/major incidents 2. Exercise plan

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6	Review the operations communications system.	50, 86, 87	2	CI	2	<ol style="list-style-type: none"> 1. Review all communications plans taking into account system capabilities 2. Exercise and report
7	Enhance the CFS operational planning capability.	41, 49, 51, 53, 54, 55, 57, 68, 69, 72, 99	2	CI	2 & 3	<ol style="list-style-type: none"> 1. Review all ROMPS & GOMPS for inclusion of local resources and intelligence 2. ICCs, RCCs & SCC need to be audited to meet operational requirements 3. Independent assessment of SCC for operational capability 4. Check and review established safe refuge areas 5. Develop intrastate deployment plan 6. Exercise and report
8	Build a comprehensive lessons learned capability.	104, 106, 107, 108	3	QW, CA	5	
Assurance						
9	Develop a comprehensive operational assurance capability.	19, 21, 58	1	QW, CA	5	<ol style="list-style-type: none"> 1. Develop performance standards for operations of SCC & RCCs in consultation with CO & CFS Board 2. Review current brigade audit process 3. Operational assurance report to CO & CFS Board prior to next FDS

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Safety						
10	Continue the introduction of improved safety equipment.	5, 6, 10,	1	QW, RI	4	1. Publish operational standards for PPC to all CFS volunteers
11	Enhance operational safety awareness.	100, 101, 103, 34, 12	1	HR, CA	4	1. Conduct burnover training in field exercises and at brigade training 2. Reissue current fireground practice

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Training						
12	Develop a training continuum.	35, 36, 40, 59		3 QW, LT, RI, CA	2	
13	Develop communications training.	37, 38, 88		2 QW, CA	2	1. Develop a module for communications training with competencies on efficient transfer of information
14	Implement an annual training cycle and program.	45		3 QW	2	Link with 25
15	Develop and implement training on basic rural fire fighting skills.	7, 42		2 QW	2	1. Investigate why rural fire skills are diminishing 2. Review the application of BFF1 course across SA 3. Report on shortfalls 4. Incorporate rural fire skills into regional field exercises and brigade training
Command, control, coordination, leadership and management.						
16	Enhance relationships and active interaction with partner agencies.	8, 9, 13, 22, 82, 84, 85		2 ER, LT, QW	3	1. All SCC, RCC & GCC on-call personnel need training of the implications of the EM Act 2. CFS seek representation on State Recovery Committee 3. Identify FSLOs and provide training and exercise for both ZEOC/SEOC

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17	Review the command, control and coordination system in conjunction with the function of the chain of command.	43, 67, 68, 75, 105	2	CI	5	<ol style="list-style-type: none"> 1. Promote and communicate CFS operational plans to stakeholders and other agencies 2. CFS to reinforce principles of Command, Control & Coordination down to Sector Commander level 3. CFS to clarify and promote Chain of Command responsibilities between State, Regions and IMTs
18	Review the role, procedures and relationships between SCC/RCC.	15, 20, 44, 65, 67, 71	1	QW	2	<ol style="list-style-type: none"> 1. Review roles and responsibilities of SCC & RCCs 2. Training for all SCC/RCC operatives prior to FDS 3. Conduct exercises for SCC and all RCCs 4. Review application and communication strategy for levels of preparedness and promote to stakeholders
19	Enhance the application of AIIMS.	16, 56, 74	2	QW, ER	2	1. See Serials 18, 7 & 16
20	Enhance CFS leadership development and support.	60, 70	3	CA	2	
Information and intelligence						

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21	Develop a culture of reporting and sharing information.	18, 23, 81,83, 102	2	CA	2	<ol style="list-style-type: none"> 1. Review information need requirements at all levels 2. Develop into a model for sharing and reporting information 3. Test model during exercises 4. Promote across CFS the importance of sharing and reporting information
22	Enhance the Information Management capability.	46, 66, 77, 79, 92, 95, 96	3	QW, RI, CA	2	<ol style="list-style-type: none"> 1. Establish a working group with SEOC to investigate end to end information requirements 2. Review information flow requirements from Region to State 3. Establish media release authorisation process 4. Investigate integrated information management system
23	Develop an intelligence capability including threat analysis.		2	QW	2	<ol style="list-style-type: none"> 1. Develop dedicated intelligent cells within ICCs, RCCs and SCC

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Miscellaneous						
24	Develop the tools and practise to better work with private units and other local resources.	39, 75, 78	1	ER, QW	3	1. Develop a SAFF/CFS working group on private fire units 2. Develop policy for use of private units 3. Review effective models currently working (eg. KI & YP) 4. Develop a communication and implementation strategy with SAFF
25	Review the staffing of volunteer positions in particular the election of officers.	17	3		4	
26	Develop a program to train personnel in, and promote the role of, prevention in brigades.	27	3		4	
27		14				
	Ongoing/continue unchanged	1, 11, 14	3			
	Notes:					

QW - an issue that can be addressed and implemented quickly (ie within 12 months).
LT - a long term issue that will require a long term approach in planning, funding and implementation

HR - these are issues which represent a high risk to CFS through not addressing them quickly. This is because they will be raised by the coroner, or need to be implemented by the next fire season.

Priority is assigned based on the following considerations:

1. Measurably improves CFS and community safety.
2. Improves operational capability, or enhances a function that improves operational capability.

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RI - these issues are likely to be resource intensive and require significant investment by CFS. This might also include seeking additional funding from government.

ER - successful implementation of these issues will require working with external relationships.

CI - these issues are characterised by their complex nature.

CA - these issues have significant cultural aspects (internal) that will require consideration for successful implementation.

3. Incremental improvements in capability requiring consultation to avoid unintended consequences.

KRA are derived from the *CFS Strategic Overview*, April 2005.

ANNEX E

Annex E. Consultation schedule

Consultation Schedule

Name	Position	Remarks
Clause 6(1)	CFS Prevention Services Manager	Deputy State Coordinator 10/11/12 January 2005
	Manager Infrastructure & Logistics	On-call state logistics officer. Interviewed with Dave Keddie Co-investigated the 2 volunteers' deaths (with Judy Arthur).
	CFS Communications Systems Coordinator	Interviewed with Arthur Tindall
	Manager Training	Also has operational role as Deputy State Coordinator.
	CFS Manager public Affairs	Manager Media Liaison
	CFS Communications	
	CFS Volunteer	Incident Controller at Mt Osmond
	CFS Regional Operations Planning Officer (Region 1)	Regional Command for Mt Osmond
	Assistant Chief Officer, Manager of Strategic Services	Liaison Officer for Coronial Investigation
	CFS Volunteer and Farmer, Eyre Peninsula	Was on duty on the day of the EP fire
	SES Regional Metropolitan east Division) Manager	ZEOC Controller Mt Osmond
	DEH Fire Management	
	DEH Fire Management	
	SAFECOM, CEO	Chair of Eyre Peninsula recovery Committee
	Mitcham Council, Mayor	
	Mitcham Council, CEO	
	Mitcham Council, Fire Prevention Officer	
	Burnside Council, CEO	
	Burnside Council, Senior General Inspector	Fire Prevention
	Burnside Council, General Manager Corporate and Community Services	
Community Firesafe Group – Mt Osmond	Residents who experienced the fire	

Clause 6(1)

South Australia Volunteers Fire Brigade Association, Executive Officer	
South Australia Volunteers Fire Brigade Association, President	
SAFECOM, Manager Health Safety and Welfare	Co-investigated the 2 volunteers' deaths (with Arthur Tindall).
South Australian Farmers Federation, General Manager	
SA Police, Deputy Commissioner	
SA Police, Assistant Commissioner	ZEOC Commander, Pt Lincoln, 11 Jan 2005
SA Police, Assistant Commissioner	
Port Lincoln Council, Director Corporate and Community Services	
Tumby Bay District Council, Director Works and Environmental Services	
Tumby Bay District Council, DBPC Yallunda Flat CFS rep	
Tumby Bay District Council, CEO	
Tumby Bay District Council, Chairman	
Port Lincoln, Mayor	
CFS Volunteer, Prevention Committee (Regional)	
SA Farmers Federation rep; Koppio	Also CFS volunteer
Region 6, Regional Commander	
Region 6, Regional Training Officer	
Region 6, Regional Prevention Officer	
Region 6, Regional Admin Officer	

Clause 6(1)

Region 6, Regional Admin Officer	
Lower EP Group, Deputy Group Officer	
Greenpatch CFS Captain	
Lower EP Group, Deputy Group Officer	
District Council of Lower Eyre Peninsula, Cummings	Lower EP Group, Deputy Group Officer
District Council of Lower Eyre Peninsula, Cummings - Chairman	
District Council of Lower Eyre Peninsula, Cummings - CEO	
Wanilla CFS, Captain	
District Council Tumby Bay, Fire Prevention Officer	Also Ungarra CFS Captain
Private aircraft contractors	Aerial Observation, EP
Farmer	Coulta CFS Captain

ANNEX F

Annex F. Documentation schedule

PROJECT PHOENIX INFORMATION SOURCES¹

1. CFS General
 - a. CFS Org Chart
 - b. About the CFS
 - c. CFS at a glance
 - d. SAFECOM Structure
 - e. SA Volunteer Fire Brigades Association Strategic Plan
2. Project Phoenix
 - a. CO Terms of reference
 - b. Fact sheet
 - c. Project Plan
 - d. Strategic Outcome for the Project
 - e. Coronial Inquiry terms of reference
3. Briefings - AARs and briefings
 - a. Specific Issues Papers ^{Clause 6(1)}
 - b. Wangary (Region 6)
 - c. Wangary lessons learned forms
 - d. Account by ^{Clause 6(1)}
 - e. Mount Osmond (Region 1)
 - f. Rendelsham (Region 5)
 - g. Air operations debrief
 - h. Mount Osmond Fire Survey Summary
4. Issues and Lessons
 - a. Issues raised (current version including issues not raised and COs notes)
 - b. Issues raised (old version)
 - c. Issues not raised (old version)
 - d. Issues and lessons by theme
5. Historic Lessons
 - a. CFS Centre for Lessons Learned – Terms of Reference
 - b. Issues Register Reports 1-42
 - c. Fire Prevention Analysis - Tulka Community
6. CFS Operational and General Management Background
 - a. CFS SCC Plan 2004-05
 - b. SA Fire and Emergency Resource Standards (SAFERS)
 - c. Risk Assessment Quick Reference Guide
 - d. CFS Business and Risk Planning 2005-06
 - e. CFS Risk Management Procedure – April 2005
 - f. AFAC Glossary of Rural Fire Terms
7. Operations
 - a. Chief Officer's Standing Orders and SOPs
 - b. Operations Management Guidelines
 - c. AIIMS Positions and Responsibilities

¹ This is not an exhaustive list of documents consulted but includes the major documents and indicates the breadth of material reviewed by the project team.

- d. Regional Operations Management Plans
- 8. Media
 - a. Wangary Fire 11/1 – 19/1
 - b. Wangary Fire 20/1 – March
 - c. Wangary Fire Media Transcripts
 - d. *Volunteer* newsletter – Volume 111 April 2005
- 9. Ash Wednesday
 - a. Coronial Inquiry
 - b. Crime Command Debriefing Report
- 10. General fire background
 - a. Farm Fire Safety
 - b. Bushfire Prevention and Electricity Distribution
 - c. Report of the Select Committee on Bushfire Protection and Suppression Measures
- 11. Reports
 - a. COAG Summary
 - b. McLeod Report
- 12. Miscellaneous
 - a. Ministerials received resulting from fires January 10/11

ENCLOSURE 1

Enclosure 1.

Project Phoenix Terms of Reference and team members



Docket: Wangary Fire Lessons Learned

MEMO TO: DEPUTY CHIEF OFFICER
MANAGER OPERATIONS PLANNING

MEMO FROM: CHIEF OFFICER

COPY TO: CFS STRATEGIC LEADERSHIP GROUP

DATE: 28 February 2005

SUBJECT: PROJECT PHOENIX
WANGARY FIRE – LESSONS LEARNED PROJECT

1.0 BACKGROUND:

On the 10th and 11th January 2005 a fire event occurred in the Lower Eyre Peninsula that resulted in one of the largest and most damaging bushfires in South Australia's history. A number of investigations and enquiries have commenced into various circumstances of the fire and events around the fire.

CFS is a learning organisation. The process of debriefing and after action review, in conjunction with the Centre For Lessons Learned, our risk management and business planning frameworks and various other inter agency committees, establish a framework for identifying issues, developing solutions to problems, and implementing them.

2.0 INTENT:

It is intended that a specific process be implemented to identify, and then implement, Lessons Learned from the Wangary fire. The process will adopt the principles of:

- "No blame".
- Lessons will always be learned from any event.
- CFS is committed to continuous improvement.
- We will consult and engage key people and organisations in what we do.
- We will keep the process simple.

At the end of this process, CFS will have:

- identified all the issues from the Wangary fire;

- accepted or rejected the issue and consulted with those who may be interested in the issue;
- worked with those who are interested in the solution to an issue to identify what we need to do to address the issue, and;
- either have fixed the issue, or have developed a program (and allocated resources) that will result in the issue being fixed.

3.0 TERMS OF REFERENCE – "Project PHOENIX"

The lessons learned project from the Wangary fire will be known as "Project PHOENIX".

4.0 Steering group

The Steering Group for Project PHOENIX will include (but not be restricted to):

- Deputy Chief Officer
- Manager Strategic Services
- Manager Operations Planning
- Region 1 Regional Commander
- Manager Prevention Services.

The Steering Group will report to the Chief Officer.

5.0 Stakeholders

People and organisations to be consulted for relevant parts of the process will include (but not be restricted to):

- Volunteer Fire Brigades Association
- South Australian Farmers Federation
- Lower Eyre Peninsula District Council
- State Volunteer Management Committee
- Centre For Lessons Learned.

6.0 General approach

Project PHOENIX will require the following steps to be undertaken:

- 6.1 **Gather issues:** Project PHOENIX will gather information and issues from all available sources. This will include debriefs, issues raised by the media, and various individuals and interest groups and organisations. Documents to be reviewed include existing plans, letters, newspaper cuttings and recent reports. The Council of Australian Government's Inquiry into Bushfire Mitigation and Management should be included in the scope of documents reviewed.
- 6.2 **Identify stakeholders:** Identify particular individuals and organisations who should be consulted or have an ongoing involvement during the life of Project PHOENIX.

- 6.3 **Confirm issues:** Issues will be clearly articulated. If there is another party who may have an interest in the issue, they will be consulted to ensure the issue is written so they agree with the issue.
- 6.4 **Identify quick actions:** There may be issues that have been identified that need no further discussion. That is the issue is agreed, and may be urgent; the solution is clear and unambiguous. In this situation, an immediate recommendation of action should be made.
- 6.5 **Sift and sort issues:** Issues will be analysed, grouped and prioritised. The issues will be reviewed to ensure that the cause is properly identified (not just a symptom of the cause).
- 6.6 **Develop action plan:** Including resources required for implementation, the recommended person who is responsible for implementing the action, and the timetable for implementation. The action plan should be confirmed with relevant stakeholders.
- 6.7 **Implementation review:** Advise what processes may be required to ensure that actions are implemented and that appropriate resources are applied to implement each action.

7.0 Timelines

7.1	Debriefs completed and delivered to DC/O	4 March
7.2	Quick actions identified	11 March
7.3	Issues agreed, sorted and prioritised	31 March
7.4	Draft action plan submitted to Chief Officer	29 April
7.5	Final action plan submitted to CFS Board	13 May

8.0 Progress reports

A brief written progress report will be provided to the Chief Officer by 1700 hours every Friday unless other arrangements have been made.

EUAN FERGUSON

CHIEF OFFICER / CHIEF EXECUTIVE OFFICER



ENCLOSURE 2

Enclosure 2.

Consultation briefing note

Project Phoenix - Preamble for stakeholder meetings

Guideline agenda

1. Welcome and thanks for meeting with us.
2. Discuss who Noetic is and our engagement by CFS.
3. Purpose of the meeting.
4. Acknowledgement and differentiation from other investigations into the incident.
5. State clearly that the process is not about blame. Our focus is on learning lessons and the future.
6. Opportunity for stakeholder to ask questions about the summary.
7. Request the start of the story. Key themes: prevention; preparedness, response and recovery.

Guidance on statements for the agenda

1. Thank you for making the time to see us today.
2. We are from Noetic solutions, a consultancy based in Canberra. We have been engaged by CFS as part of Project Phoenix to help work out what lessons can be learnt from the January 10/11 incidents across the state, not just Eyre Peninsula.
3. We are here today to talk with you to find out what you experienced on the day and to hear from you what happened, what went well and did not go so well.
4. We know there have been a number of internal debriefs and meetings with the Coroner we do appreciate the time you have already given in talking about what happened. Project Phoenix is different in that it is simply about taking an objective look at what happened to work out how CFS can improve in the future.
5. We must stress that this is not about judging people, it is not about blame.
6. In order to identify all the issues relevant for Project Phoenix, we need to consult pretty widely and we are talking with CFS staff, volunteers, locals and partner agencies. We are working broadly within 4 key themes – prevention, preparedness, response and recovery (PPRR).
7. Is this OK? Do you have any queries so far?
8. Based on involvement either: Can you start by telling me what happened, from when you became aware of the fire? What are your key observations about the incident? What went well and what went not so well.

Guidance Notes:

- Try to guide people away from leaping to solutions.
- Probe the thinking/rationale behind it comments.
- Focus on key themes PPRR.

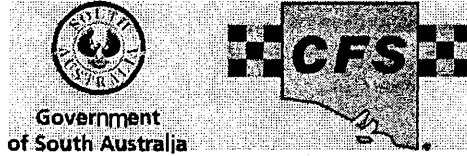
Some potentially critical issues (indicative)

- Communication – GRN, process, culture.
- Warnings – to community, to other agencies.
- Intelligence about the fire – gathering and distribution of information.
- Community expectations.
- Training.

ENCLOSURE 3

Enclosure 3.

Project Phoenix Fact Sheet



PROJECT PHOENIX FACT SHEET

BACKGROUND

The bushfires of 10 and 11 January 2005, in particular, the fire on the Lower Eyre Peninsula in South Australia was one of the largest and most significant incidents experienced in the State. Nine lives were lost, more than 100 homes and properties destroyed and around 47 000 stock were killed. In only a few hours, the bushfire raced across 77 000 hectares of land from the west side of the Peninsula to the east and up to the north-east. Many CFS resources were dedicated to battling and containing this blaze including 1 000 CFS volunteers, staff, farming units and hundreds of vehicles.

As CFS is a learning organisation, a major part of the continuous improvement process is debriefing after a major incident, which has occurred within CFS Brigades, Groups, Regions and staff involved in that incident, along with other agencies that were involved.

COMMISSIONING OF PROJECT PHOENIX

In the weeks following the bushfires, the SA Country Fire Service Chief Officer, Euan Ferguson, commissioned a formal project to develop and implement lessons learned from the devastating events.

INTENT OF PROJECT PHOENIX

From the events of and 10 and 11 January 2005, CFS has the opportunity to improve its systems of work and enhance community and firefighter safety. CFS will achieve this through the commitment of its people addressing the current systems of work and developing a cooperative culture. From this CFS believes it can meet the prospective outcomes of the Coronial Inquiry and better meet community and stakeholder expectations.

PROCESS OF PROJECT PHOENIX

The process will be one of:

- "No blame"
- Continuous improvement
- Consulting and engaging key people and organisations in what we do.

The process will include:

- Gathering issues of volunteers, staff, community and interest groups involved in the incident and reviewing relevant fire reports.
- Identifying stakeholders who should have an ongoing involvement during the life of Project Phoenix.
- Identifying quick actions.
- Sifting and sorting issues into group's then priorities established. The issues will be reviewed to ensure that the cause is properly identified.
- Developing an action plan including resources required for implementation.
- Implementing a review of existing processes.

To assist in capturing issues and facilitating the process an external team of consultants will provide independent support to assist in the learning process and outcomes of the project.

OUTCOME OF PROJECT PHOENIX

The outcomes of the project will provide guidance for the future of CFS.

At the end of this process, CFS will have:

- Identified all the issues from the bushfires.
- Reviewed the issues and consulted with stakeholders who may be interested in the issues.
- Worked with those who are interested in the solution to an issue to identify what CFS needs to do to address the issue, and
- Either fixed the issues, or have developed a program (and allocated resources) to address the process identified.

STEERING GROUP

The Steering Group for Project Phoenix will include (but not be restricted to):

- Deputy Chief Officer (Brenton Keen)
- Manager Strategic Services (Andrew Lawson)
- Manager Operations Planning (Rob Sandford)
- Region 1 Regional Commander (Mark Thomason)
- Manager Prevention Services. (Leigh Miller)
- Executive Officer SAVFBA. (Wendy Shirley)

TIMING

The Steering Group will report regularly to the Chief Officer with an action plan to be submitted to the CFS Board by 13 May 2005.

For further information, please contact SA Country Fire Service (08) 8463 4200.

April 2005

<<Ends>>

ENCLOSURE 4

Enclosure 4.
Workshop program

**PROJECT PHOENIX
WORKSHOP 1-2 MAY 2005
PROGRAM**

Location: Adelaide Convention Centre, North Terrace, Adelaide


Dress: Neat casual

Serial	Date/Time	Event	Facilitator	Remarks
Sunday 1 May			Clause 6(1)	
1.	0900	Arrival		Arrival tea and coffee
2.	0930 – 0945	Welcome		
3.	0945 – 1015	Introduction		Includes: Introductions, Project process, Workshop process
4.	1015 – 1030	<i>Morning tea</i>		<i>CO departs after morning tea</i>
5.	1030 – 1100	Description of event		Factual overview of fires
6.	1100 – 1200	Straight forward issues		Issues that are straight forward and have actions suggested
7.	1200 – 1230	Organisational issues		
8.	1230 – 1330	<i>Lunch</i>		

9.	1330 – 1515	Organisational issues continued	
10.	1515 – 1530	<i>Afternoon tea</i>	
11.	1530 – 1630	Prevention	
12.	1630 – 1700	Summary and way forward	
Monday 2 May			
13.	0830 – 0845	Arrival	Tea and coffee available
14.	0845 – 0900	Recap and way forward	
15.	0900 – 1015	Preparedness	
16.	1015 – 1030	<i>Morning tea</i>	
17.	1030 – 1230	Response	
18.	1230 – 1330	<i>Lunch</i>	
19.	1330 – 1430	Recovery	
20.	1430 – 1515	Summary and outstanding issues	
21.	1515 – 1530	<i>Afternoon tea</i>	
22.	1530 – 1700	Brief to Chief Officer	
23.	1700- 1715	Close	

Notes:

Clause 6(1)



ENCLOSURE 5

Enclosure 5.

Workshop attendees

**ATTENDANCE REGISTER FOR PROJECT PHOENIX WORKSHOP 1 & 2
MAY, 2005**

NAME	ORGANISATION REPRESENTING	ATTENDING
Clause 6(1)		
		Y
	SVMC	N
	SVMC	Y
	SVMC	Y
	SVMC	
	SVMC	Y
	SVMC	N
	SVMC	N
	SVMC	Y
	SVMC	N
	SVMC	Y
	SVMC	Y
	SVMC	Y
	SVMC	Y
	SVMC	Y
	SVMC	Y
	SVMC	Y
	SVMC	Y
	SVMC	Y
	SVMC	Y
	SVMC	?
	SVMC	N
	VFBA State Executive reps	Y Y (Sun only) Y (Mon only)
	SAFF	Y
	LGA	N
	DEH	N
	Forestry SA	Y
	SAMFS	
	SASES	Y
	SAPOL	Y
	SA BPAC	Y
	SAFECOM	Y
	SAFECOM	N
	OH&S	Y
	CFS SLG	Y
	CFS SLG	Y
	CFS SLG	Y
	CFS SLG	N
	CFS SLG	Y
	CFS SLG	Y
	CFS SLG	N
	Steering Group	Y

Created by Michelle Egel

**ATTENDANCE REGISTER FOR PROJECT PHOENIX WORKSHOP 1 & 2
MAY, 2005**

NAME	ORGANISATION REPRESENTING	ATTENDING
Clause 6(1)	Steering Group	Y
	Steering Group	Y (Mon only)
	Noetic Solutions	Y
	Noetic Solutions	Y
	Noetic Solutions	Y

Notes:

- The program, etc has been emailed to all attending.

Created by Michelle Egel