

## Project Pinery

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The SACFS was prepared and on high alert the day of the Pinery fire and despite a prompt response little could be done to contain the ferocity of the blaze. Over many years SACFS has cultivated a culture of learning and we are the only fire service in the country with a dedicated position to ensure we learn from every incident. This is true for large incidents as well as small ones. Despite the devastation the fire caused across the mid-north all of our volunteers can be proud of their response, bravery and aptitude displayed the day and days after the Pinery fire.

There are nine lessons identified. Some of these actions are due for completion before the 2016/17 Fire Danger Season begins, while others will be in place by the following fire season. Actions which require added resources or are not within our budgets have a longer timeframe allocated. The table below provides actions and target schedules by which those actions will be completed for each of the nine recommendations identified within Project Pinery. In addition, the Pinery report also referenced previous recommendations and a subsequent table provides SACFS comment on those previous recommendations that were identified as incomplete through the Pinery report.

SACFS is undertaking a review of several incident management components before the next fire season to better equip volunteers and staff with extreme weather conditions. SACFS is currently reviewing its warnings as part of a National review, we have already added maps into our warnings which we hope will help the public understand where a fire is and in which direction it will head this fire danger season. There is also a focus on enhancing intelligence gathering and sharing from the ground to those in command. SACFS is conducting a review of its physical resources both at Incident Control Centre and Regional Coordinator Centre levels, it will implement where possible better resources. The budget announcement regarding safety systems for burnovers has been announced this year and this project is already underway.



## Lesson One: Incident Management

Recommendation	Action	CFS Activity being undertaken	Schedule/expected completion
<p>Early development and sharing of incident action plans, including communications plans and situation reports. SACFS ensures it clearly articulates the chain of command at all levels; state, regional and incident. SACFS Level 3 IMTs should be agile and in line with the conditions of the day.</p>	<p>Clarify responsibilities for command, control and coordination at State Coordination Centre (SCC), Regional Coordination Centre (RCC), and Incident Management Teams (IMTs) and review doctrine.</p>	<p>SACFS commenced an Incident Management (IM) Review in January 2016. The responsibilities for command, control, and coordination will be developed and refined as part of a two year project.</p>	<p>Responsibilities will be clarified at the State Incident Management Team (SIMT) workshop facilitated for all IMT members (volunteers and staff) during September 2016 in preparation for the 2016/2017 fire danger season.</p> <p>Several Operational doctrine documents have been updated, others are to be completed.</p>
	<p>Reinforce the requirement for early and comprehensive incident action plans and situation reports in doctrine and training. Emphasis the underlying processes and exercises.</p>	<p>Incident action plan requirements have been reviewed within the IM review and development will be ongoing.</p>	<p>Ongoing. Initial IAP requirements will be included at the SIMT workshop scheduled for September 2016.</p>
	<p>Review the requirement for, capacity to generate and sustain; and processes to establish IMTs. This should include consideration of the need for pre-emptive establishment of Level 3 IMTs in regions when conditions warrant.</p>	<p>SACFS continues to identify the best process of establishing and sustaining IMTs within the IM review, including more efficient rostering solutions and the cost-benefit of pre-emptive Level 3 IMTs.</p>	<p>Proposed IMT establishment processes will be addressed at the SIMT workshop scheduled for September 2016.</p> <p>This process is expected to be refined over multiple fire</p>



			danger seasons.
	Identify training currency and skills enhancement opportunities of individuals employed at the SCC, RCCs, larger IMTs, and group officers.	SACFS has been an active member of the AFAC endorsement group for incident management roles and currently has several accredited and endorsed incident personnel on this basis. The identification of training pathways, exercising and endorsing will be ongoing.	National accreditation and endorsement is currently being undertaken with AFAC. Training pathways will be in place by end of 2017.

### Lesson Two: Public Information and Warnings

Recommendation	Action	CFS Activity being undertaken	Schedule/expected completion
During rapidly escalating fires such as Pinery, predictive services together with understanding of current situation and provision of information to the public across a diverse range of media and social platforms needs to be provided to aid in decision making and response by communities.	Investigate opportunities to provide geographic information to supplement text based warnings.	The inclusion of maps in SACFS warning messages for complex fires has been tested and is endorsed through Alert SA.	Complete. This will be introduced for the 2016/2017 fire danger season.
	Review the structure of warning messages to ensure point of origin (locality) and geographic orientation provide a greater appreciation of locality of fire or event.	CFS has engaged Central Queensland University (CQU) as part of the Bushfire Natural Hazards CRC Communication and Warnings research. A review of the language and warning message structure has been conducted.	Enhancements in public warnings resulting from the research will be introduced in warning messages in the 2016/2017 fire danger season.
	Investigate strategies to supplement standard warning messages where rapidly developing fires or fire conditions create particular challenges for the community.	CFS is continuing to build and enhance information and warning dissemination through a variety of sources including: Alert SA Facebook, Twitter, Twitter Alerts,	SACFS already has established warning information processes through Alert SA, Facebook, Twitter, Twitter Alerts, Media Interviews and Media spokespeople.



		Media Interviews, and Media spokespeople.	In addition Facebook Live and Livestreaming will be introduced for 2016/2017 fire danger season.
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### Lesson Three: Intelligence Gathering and Sharing

Recommendation	Action	CFS Activity being undertaken	Schedule/expected completion
SACFS needs to further develop and define the common operating picture at each level as well as identify how existing systems can support the formulation of a common operating picture.	SACFS should continue to develop and strengthen the concept known as common operating picture and what this means at each level and how existing systems can support the formulating of common operating picture.	SACFS is defining its user requirements across state, region, and incident levels.	Ongoing
	The intelligence function in AIIMS is still developing and there is a need to ensure capability, processes and products are clearly defined and communicated across SACFS.	SACFS is an active participant in, and proponent of, the ongoing development of AIIMS 4 including the national development of the intelligence function. SACFS trains all relevant staff in AIIMS.	Ongoing.
	There is a need to establish procedures that allow rapid production and dissemination of fire behaviour predictions.	In addition to the embedded Bureau of Meteorology (BOM) officer, SACFS has undertaken liaison with the BOM and the Department of Environment, Water, and Natural Resources (DEWNR) and an in-principle agreement has been established regarding the increased availability of fire prediction maps.	This will be established for the 2016/17 fire danger season.



#### Lesson Four: Emergency Management Facilities

Recommendation	Action	CFS Activity being undertaken	Schedule/expected completion
Incident facilities at state, region and incident level to be reviewed.	Review the standard requirements of control facilities including incident, region and state.	SACFS has identified the primary regional coordination centres and desirable level three ICCs across the state and is defining user requirements.  At a State level, new accommodation is being sought for SACFS, SASES and SAFECOM which will include a new SCC facility.	Ongoing.
	Regularly audit control facilities and conduct exercises from them to ensure their readiness.	An auditing schedule will form part of the implementation process identified in the ICC, RCC and SCC reviews.	Ongoing.
	Review ICT capability and contingencies for control facilities to ensure they remain robust across a range of reasonable circumstances. Contingencies should be documented in relevant plans associated with other agencies and exercised.	SACFS is upgrading ICT capabilities and connectivity to co-ordination centres and control facilities.  SACFS has made contingency arrangements for satellite trailer deployment during 2016/2017 fire danger season. SACFS works with other agencies to improve connectivity and communications wherever possible.	Ongoing.

#### Lesson Five: Relocation and Relief of Persons

Recommendation	Action	CFS Activity being undertaken	Schedule/expected
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			<b>completion</b>
SACFS promotes the decision to relocate early and does not direct evacuations. There is some evidence that the application of these policies is not fully understood by all SACFS members or by the public.	Ensure SACFS' position on relocation is understood by all SACFS members, other relevant agencies and the community.	SACFS is reviewing the use of the term evacuation to ensure a prompt community response. SACFS will work with other agencies to ensure the language is understood. This update will be provided during the SACFS pre-season updates scheduled for all regional and state-based staff as well as all volunteers who attend the sessions.	Pre-season briefings will be delivered to all state and regional staff, and will include volunteer sessions throughout September and October 2016.
	Consider utility of SACFS providing an early call to action on days of extreme or catastrophic FDIs.	SACFS continues to provide Media Briefings in preparation for Extreme or Catastrophic FDR's and during the 2016/2017 fire danger season SACFS will introduce the use of Facebook Live and Livestreaming to supplement the coverage.	SACFS will continue to provide media briefings during the 2016/2017 fire danger season.

### Lesson Six: Aviation

<b>Recommendation</b>	<b>Action</b>	<b>CFS Activity being undertaken</b>	<b>Schedule/expected completion</b>
The coordination of aviation resources within SACFS is well documented, however the application of the VLATs without its usual accompanying aircraft presented some challenges for coordination.	SACFS to review the associated plans and procedures for requesting and managing interstate aviation resources.	SACFS State Aviation Operations has reviewed the relevant Standard Operating Procedure and 'Integrated Safety Operations & Management Systems' policy to include further guidance on requesting aviation resources.	Completed



## Lesson Seven: Personnel Safety

Recommendation	Action	CFS Activity being undertaken	Schedule/expected completion
<p>Fire appliances were impacted by fire and heat on several occasions during Pinery. Although injuries occurred, where the latest safety systems were fitted to fire appliances, crews survived severe burnovers and the impacts of fire and heat and were generally subsequently capable of continuing operations.</p>	<p>Examine opportunities to accelerate the replacement of appliances or fitting of layered safety systems on fire fighting vehicles to ensure crew protection.</p>	<p>Within the 2016/2017 budget the SA Government funded SACFS' bid to retrofit SACFS brigade appliances with crew protection.</p> <p>At the conclusion of five years, SACFS seeks to have 195 trucks retrofitted with water safety systems.</p> <p>The 2016/2017 budget also funded the single-cab truck replacement program.</p>	<p>SACFS has engaged two FTEs to manage the retrofit project.</p>
<p>Automatic Vehicle Location (AVL) systems provide controllers with enhanced situational awareness and the ability to correlate appliance locations with a rapidly moving fire front. They therefore reduce the likelihood of burnovers and markedly enhance firefighter safety.</p>	<p>Investigate strategies for establishing an AVL solution.</p>	<p>SACFS is defining its user requirements for an appropriate system.</p>	<p>SACFS seeks to complete the initial scoping phase and user requirements by 2017.</p>



### Lesson Eight: Collaboration

Recommendation	Action	CFS Activity being undertaken	Schedule/expected completion
During emergencies the priorities and action plans of the control agency need to be clearly understood by all agencies with a direct or indirect role in emergency management.	Review the interagency coordination arrangements for a reasonable range of large scale emergencies and ensure responsibilities for establishing the requisite liaison and coordination are clear.	SACFS is participating in the current State Emergency Management Plan (SEMP) review and will incorporate all changes into SACFS doctrine, training and practices.	Ongoing.
	Review the operating and reporting arrangements for Rapid Damage Assessment teams to clarify roles and actions and reporting arrangements with the IMT. Include these arrangements in doctrine and exercises.	SACFS is participating in the review of the Damage Assessment procedural documentation led by SAPOL.	Ongoing.

### Lesson Nine: Fatigue Management

Recommendation	Action	CFS Activity being undertaken	Schedule/expected completion
SACFS needs to improve advice to crews relating to fatigue management.	Reinforce the importance of fatigue management.	SACFS is currently reviewing policy for fatigue management.	Research Professor on fatigue from CQU will be speaking at the State Incident Management workshop.





## Previous Reviews

Within the Pinery review, Noetic has reviewed previous reviews undertaken as a result of large scale events with South Australia to determine SACFS' progression of those recommendations. Of the eight raised as incomplete, SACFS can confirm four recommendations are now complete, one is ongoing and three are currently being actioned.

Reference (as per Pinery report)	Recommendation	Status (as per Pinery report)	SACFS Comments
3	Reviewing how regional resources are managed and tracked and incorporated into the Chief Officer's Standing Orders to ensure that there is complete situational awareness as to the location and tasking of SACFS resources.	Incomplete.  This is a recurring theme from a number of reviews including this one.	In 2013 the emergency services sector sought additional funding to enable AVL across the sector from State Government without success.  See Pinery Action Plan table 7.2.
6	That a complete review of current naming conventions of personnel and centres, in accordance with the outcomes of the Victorian Bushfire Royal Commission is undertaken, to ensure clarity around command, control and coordination within South Australia.	Incomplete.	Complete. SACFS engages with reviews such as AFAC, SEMP undertaken within the AIIMS structure. SACFS' naming structure is consistent with national standards and any change may cause additional unnecessary risk during interstate deployments.
8	That SACFS conduct a review of IMTs with a view to increasing the number of teams from four to six, aligning them with each of the six regions within South Australia.	This was considered to be infeasible given the level of resourcing available to the SACFS.  This report identified a similar need but proposes an approach where ICCs would be prepared in each Region	Complete. SACFS has conducted a review and identified there is only capacity to operate four state led IMTs. The review has also quantified SACFS has a significant pool of non-rostered IMT participants who can form additions to IMTs as required. Updated IMT establishment processes will be addressed at the SIMT workshop



		and, in response to defined triggers, be staffed with the core of an IMT that would enable rapid build up to a comprehensive IMT capability.	scheduled for September 2016.
<b>10</b>	Review all current SACFS operational facilities (Group, ICC, RCC and SCC) to provide more effective communications, connectivity and resource management.	Incomplete.  Reiterated in this report.	SACFS commenced an Incident Management (IM) Review in January 2016 which seeks to identify increased efficiencies through better connectivity.  See 4.3.
<b>11</b>	Review the communication and request procedures within SACFS to ensure that the most effective chain of command and line of communications are established between the IMT, region and state.	Incomplete.  The clarification of the meanings and responsibilities associated with command control and coordination proposed in this report reinforces this recommendation.	SACFS' Incident Management (IM) Review has defined the responsibilities for command, control and coordination as well as the reporting processes between state, region, and incident. SACFS' doctrine and policies are being updated to reflect this.
<b>12</b>	SACFS appoint the Regional Controller and/or Coordinator as the Incident Controller for any Level 3 incident occurring within their Region to provide better continuity and improved coordination. The position of the Regional Controller and/or Coordinator could then be backfilled by a suitably qualified individual as required.	This recommendation may have been overtaken. The consensus developed at the Validation Workshop is that the Level 3 Incident Controller would be in the chain of command subordinate to the Regional Commander. If the Regional Commander in this case is a Controller (as opposed to a Coordinator)	Complete. See 1.1 and 1.8.



		<p>then the ability and responsibility for the Regional Commander to apply local knowledge to the management of the incident will meet the intent of this recommendation.</p> <p>The clarification of command, control, coordination proposed in this report should inform the response to this recommendation.</p>	
<b>14</b>	SACFS and BOM review current weather, fuel loads and curing rates to determine the most appropriate and accurate forecast is prepared, issued and validated against current conditions.	<p>This work is ongoing. The Fire Danger Working Group and standardisation of BOM services will mostly address this recommendation. The Bushfire and Natural Hazards Cooperative Research Centre (CRC) project to develop next generation fire modelling capability and capacity is proceeding. SACFS and DEWNR are represented at this CRC.</p> <p>In this fire, the forecasts and fire behaviour analysis were satisfactorily accurate.</p>	Ongoing. SACFS now has an embedded BOM officer within the SCC during the fire danger season. SACFS is actively participating and financially contributing to ongoing research in relation to fire danger ratings.
<b>17</b>	That SACFS considers a review to develop an	Incomplete.	Complete. All incident information is



	effective interagency messaging system and agency resource management system.		available in CRIIMSON which is available to all Emergency Services Organisations (ESO) in SA and key supporting agencies within relief recovery. SACFS has provided training. CRIIMSON is also available in the State Emergency Centre (SEC) and agencies are able to disseminate this within their own agencies.
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