



**A REVIEW OF FIRE MANAGEMENT
ARRANGEMENTS IN THE ACT 10 YEARS AFTER THE
2003 BUSHFIRES**

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Contents

EXECUTIVE SUMMARY	3
1. INTRODUCTION	7
2. RESIDENTIAL PLANNING FOR BUSHFIRE RISK MANAGEMENT	8
3. STRATEGIC BUSHFIRE MANAGEMENT PLANNING and BUSHFIRE OPERATIONAL RISKS	11
4. FIRE FIGHTING RELATIONSHIPS AND ARRANGEMENTS	14
5. FIRE FIGHTING EQUIPMENT AND SYSTEMS	16
6. INCIDENT CONTROL SYSTEM.....	21
7. COMMUNITY EDUCATION AND AWARENESS	24
REFERENCES	26
ATTACHMENT A. - EXTRACTS FROM SMITH REPORT UPDATED TO SHOW COMPLIANCE IN 2012.....	27

EXECUTIVE SUMMARY

Following the devastating January 2003 bushfires in the ACT, the McLeod and Doogan Inquiries made over 130 recommendations covering a broad range of issues related to bushfire management in the ACT. Over the past decade the ACT Bushfire Council has been providing advice to the Minister for Police and Emergency Services and to the Emergency Services Commissioner, including monitoring the implementation of recommendations from the inquiries and reporting annually on the level of preparedness for the coming bushfire season. In 2009, with assistance from a consultant, Dr Bob Smith, the Bushfire Council provided a report to the Minister on the status of implementation of inquiry recommendations including the areas where more work was needed. During 2012, the Bushfire Council has focused much of its work on reviewing the overall status of fire management in the ACT, including consideration of the implementation of inquiry recommendations and implications of emerging issues under six thematic areas.

Ten years on from the 2003 bushfires, the ACT Bushfire Council believes the ACT is now much better prepared to deal with large bushfires. A great deal of work has been done to address most of the recommendations from the inquiries with funding from the ACT and Commonwealth governments and dedicated work by officers from the Rural Fire Service and Territory and Municipal Services Directorate. In particular, the Council recognizes the very significant advances that have been made in the following areas:

- Strategic and operational bushfire planning
- Implementation of the national system for managing bushfires and other emergencies
- Updating of emergency management facilities and firefighting equipment.
- Establishment of 49 Community Fire Units
- Provision of bushfire information to the community

While considerable improvements have been made to the planning practices for new residential development the Council still has concerns about the adequacy of planning requirements in existing suburbs that face a high risk from severe bushfires as well as the inconsistent approach to balancing conservation and fire management objectives in the Outer Asset Protection Zone. Recent research on the effectiveness of buffer zones adjacent to urban areas during intense bushfires also casts doubt on the adequacy of a 40 metre wide Inner Asset Protection Zone in protecting houses from ember attack.

The Council considers that both strategic and operational planning for bushfire management are now very comprehensive in the ACT and the process used to develop the Strategic Bushfire Management Plan and the sub regional plans took account of the science, threats and risks and presents a very sound basis for fire management operations. On public land in the ACT, TAMS has done an outstanding job of implementing its annual fire management works program in accordance with the approved Bushfire Operations Plan (BOP). This has resulted in extensive areas of fuel management being undertaken and the construction or upgrading of strategic fire access trails such as the Mt Franklin Road and Stockyard Spur fire trail. Council's main concerns with fire planning relate to maintaining adequate funding for the implementation of the BOP and the complexity of the approval process which results in inefficiencies and unnecessary delays.

The ACT has a unified firefighting arrangement involving the Rural Fire Service, including the volunteer and TAMS brigades, and the Fire and Rescue Service. In general firefighting relationships between the various organisations involved in this unified arrangement are

good, although because of the different cultures that exist in different organisations some tensions exist and Council considers that a greater effort is needed to facilitate joint training exercises and fire management operations across the organisations.

Appropriate and up to date firefighting equipment and systems are essential components of an effective fire service. The Council believes that the ACT has made very significant improvements to its facilities and equipment since 2003, particularly via the establishment of the new ESA headquarters at Fairbairn and the upgrades of the firefighting fleet, mapping and communications equipment. The relevant recommendations from the inquiries related to equipment and systems have been implemented. Council maintains some concerns about the availability of small four wheel drive utility fire appliances and the effectiveness of the operation of the COMCEN facility at Fairbairn.

During the 2003 bushfires two of the most significant problems identified during the inquiries were the inadequate operation of the Incident Control System and the lack of effective information to the community. The ACT now fully utilises the Australasian Inter-service Incident Management System (AIIIMS) for managing all bushfires. There are officers with the skill to conduct risk based approaches to predict fire behaviour and there are now appropriate systems in place to ensure that timely and accurate information is provided to the community during bushfires. Council has identified some concerns including the low number of people with experience in managing Level 3 bushfires and the effectiveness of unified control arrangements between the ACT and NSW in the event of a bushfire that threatens each other's jurisdiction.

In regard to community education and awareness, significant progress has been made through the establishment of 49 Community Fire Units in the urban interface areas across Canberra, as well the development and implementation of an enhanced communications program, including media, web-based material and social media. Council considers that adequate resources must continue to be provided for this important function and that the effectiveness of the community awareness strategies must be properly monitored.

In considering the situation under each of the six thematic areas the Bushfire Council has made a series of recommendations related to issues for which it considers further work is needed.

RECOMMENDATIONS

RESIDENTIAL PLANNING FOR BUSHFIRES RISK MANAGEMENT

1. That all future development or modification of buildings in a Home Asset Protection Zone be required to meet the provisions of the BCA and AS3959. Consideration should be given to retention of Bushfire Prone as a category even after suburbs are developed in order to ensure that AS3959 is applied to all redevelopment and housing modifications.
2. Wherever possible the Outer Asset Protection Zone should remain outside an area that contains environmental values to prevent any compromise to those values and/or reduction of the effectiveness of actions required for fire fuel management.
3. The ACT should work with other jurisdictions to facilitate more research on the appropriate width of Inner Asset Protection Zone buffers at the urban interface.

STRATEGIC BUSHFIRE MANAGEMENT PLANNING AND BUSHFIRE OPERATIONAL RISKS

4. Funding levels for fire mitigation activities funded under the BOP be maintained at levels set in 2010-11.
5. That the annual sign-off of the BOP be simplified and formalised so that it informs relevant agencies but is ready to be implemented in a timely manner.
6. That, where possible, fire management plans of federal agencies and other non ACT Government land managers be incorporated into the SBMP (V2).
7. That the Bushfire Council recommends that a review of the SBMP be undertaken in 2013 with particular regard to:
 - Cross tenure issues, particularly bushfire mitigation plans for leased and Commonwealth land;
 - Cross-border issues, particularly formalising planning with NSW NPWS;
 - Reports and recommendations from significant fire experiences since 2003, eg Victorian Royal Commission (2009) and the Keelty report on the WA fires in 2011;
 - Research conducted since 2003 that throws new light on key areas of fire management and planning, eg risk assessment, fire behaviour, ecological guidelines and training;
 - Bushfire Operation Planning process and reporting;
 - Auditing and assessment of ACT fire mitigation activities since 2003; and
 - Governance arrangements for the review, adequate resourcing, the community consultation process and expert advice.

FIRE FIGHTING RELATIONSHIPS AND ARRANGEMENTS

8. Urgent need for increased training opportunity and exercise between the ACTRFS and the government land management agency (TAMS).
9. Urgent need for increased exercising of preformed IMT teams, those teams comprising of F&RS, RFS and TAMS personnel
10. Continuing to build on the cooperative training and exercise arrangements between RFS staff, volunteers and TAMS, in particular TAMS providing opportunity for management and coordination of HR burns to RFS staff and volunteers.
11. Urgent need for increased training opportunity and exercise between the ACTRFS and adjoining NSW RFS brigades, concentrating on interoperability between the two services; equipment and importantly communications.

FIRE FIGHTING EQUIPMENT AND SYSTEMS

12. The RFS should lead the debate with the Australasian Fire Authorities Council (AFAC) to identify a vehicle platform that meets the need for a small, mobile and quick-responding light unit.
13. The RFS continue to implement the provision of fire fighting slip-ons to rural land holders in the ACT.

14. ESA undertake further consideration of the effectiveness of Comcen to dispatch and manage radio traffic for the RFS and consider alternative arrangements.

INCIDENT CONTROL SYSTEM

15. There is an urgent need to train and mentor additional Level 3 Incident Controllers.
16. There needs to be enhanced effort to improve the ACT's capacity and operational experience to predict wildfire development based on risk scenarios.
17. The competency register for Level 2 and Level 3 ICS personnel needs to be developed and aligned to an ongoing competency based training program within the ACT and interstate to enhance the expertise of all these personnel.
18. Opportunities need to be actively facilitated for all Level 2 and Level 3 ICS personnel to gain experience in managing Level 3 bushfires via deployments to bushfires in other jurisdictions and for these officer to participate in Incident Management Teams at bushfires in surrounding regions of NSW.
19. Senior staff from RFS and TAMs should continue to participate effectively in national fire management fora.

COMMUNITY EDUCATION AND AWARENESS

20. Resources be allocated to devise strategies for assessing the effectiveness of the various bushfire awareness-raising strategies.
21. Effectiveness of these awareness-raising strategies be assessed.
22. The Bushfire Council be briefed periodically on the progress and results of a recently funded project to assess the effectiveness of community education programs

1. INTRODUCTION

In January 2003, devastating bushfires impacted Canberra. Over 500 houses were destroyed and 4 people died. Over the intervening period there were two major inquiries into the bushfires: “Inquiry into the Operational Response to the January 2003 Bushfire in the ACT”¹ by Ron McLeod (known as the McLeod Report); Coroner’s Doogan’s report “the Canberra Firestorm. Inquests and Inquiry into Four Deaths and Four Fires between 8 and 18 January 2003”² (known as the Doogan Report).

In 2008-09 the ACT Bushfire Council commissioned Dr Bob Smith monitor and report on the quality of implementation of each of the inquiries’ recommendations (Smith 2009). The Smith Report provided a comprehensive review and also established a risk-based process for the on-going monitoring, review of the implementation, maintenance and refinement of systems and processes that had or were still to be implemented.

Council decided that it would be timely, given it is the 10-year anniversary of the 2003 bushfires, to review the current state of bushfire management arrangements in the ACT. . This Report draws on the template provided by the Smith Report as a reference point for determining compliance with the recommendations made by both the McLeod and Doogan reports. To compile this report, Council members drew on a range of information available to them including: presentations from Council meetings; feedback from RFS and TAMS staff; and discussions with RFS volunteers and members of the community. An updated table of compliance with Inquiry recommendations is shown in Attachment A. In addition to a discussion of the issues identified in previous Reports, Council has addressed new and emerging issues, particularly those coming from Inquiries into other significant bushfires as well as recent research.

In order to facilitate a strategic review of the status of bushfire management arrangements in the ACT as well as the implementation of the numerous recommendations from the McLeod and Doogan reports, the ACT Bushfire Council grouped issues and recommendations under six thematic areas:

- Land Use Planning;
- Strategic Bushfire Management Planning;
- Fire Fighting Relations;
- Fire Fighting Equipment;
- Incident Control System; and
- Community Education and Awareness.

¹ http://www.cmd.act.gov.au/publications/archived_publications/mcleod_inquiry/report

² <http://www.courts.act.gov.au/bushfireinquiry/bushfireinquiry.htm>

2. RESIDENTIAL PLANNING FOR BUSHFIRE RISK MANAGEMENT

Background

All of the recommendations in the McLeod and Doogan reports relating to residential planning for bushfire risk management have now been complied with as a result of implementation actions. However there are some issues that do not fully comply with the intent of the recommendations.

However since both the McLeod and Doogan reports, and partly as a result of the Royal Commission into the 2009 bushfires in Victoria, there has been a greater focus on the role that residential planning and building can take in reducing the impact of bushfires on urban populations. The ACT Bushfire Council has set out in this report the process of planning for residential development in the ACT and how it endeavours to mitigate bushfire risk. Potential issues and recommendations on how to deal with these issues are outlined in this chapter.

Current Situation Including Non-Conformance Issues

As part of the planning process, a number of steps are undertaken before land is released and developed. These are:

1. **Structure Plan** - broadly sets the Territory Plan's policy and principles of the area, typically at the district level;
2. **Concept Plan / Planning and Design Framework** - applies the principles and policies of the structure plan to define the specific planning framework and requirements for the area; includes a bushfire assessment to identify the notional mitigation measures and protection zones to reduce the risk. The assessment is usually undertaken by a bushfire consultant in consultation with the Emergency Services Agency (ESA).
3. **Estate Development Plan** - details the subdivision design and lodged as a Development Application. This plan must include a Bushfire Risk Assessment and Management Plan. This plan must comply with the Planning for Bushfire Risk Mitigation General Code of the Territory Plan and assesses the risk to the actual subdivision design.

The planning and land authority in consultation with ESA requires all new urban areas to achieve adequate levels of bushfire protection. This can be achieved through a range of measures including the spatial and structural design of the estate, the building standards and infrastructure provision and the design of the landscape within publicly owned areas.

The Planning for Bushfire Risk Mitigation General Code (the Code) is described as providing guidance to mitigate adverse impacts from bushfires in the ACT. In particular, the Code addresses the planning and development processes and is taken into account by the planning and land authority when determining estate development plan development applications. Any on-going block specific measures arising from the development approval (such as higher building standards) are included in a Precinct Code that is then taken into account by certifiers determining building applications.

This Code is complementary to the ESA's Strategic Bushfire Management Plan Version 2 (SBMP), a strategic document outlining measures for the Prevention, Preparedness, Response and Recovery from bushfires in the ACT.

The Estate Development Plan development application is submitted to the planning and land authority and is then circulated to a range of agencies in the ACT Government for comment. The ACT Emergency Service Authority is one of these agencies.

Site specific requirements are dealt with under three protection zones identified in the Code:

- Home Asset Protection Zone
- Inner Asset Protection Zone (IAPZ)
- Outer Asset Protection Zone (OAPZ)

New Issues and Improvements

The ACT Bushfire Council believes that the key question to be addressed following the recommendations of the Coroner's Inquiry, which resulted in the establishment of the Code is, '**Does land planning adequately take into account bushfire risk**'? This question can be considered in several ways. A discussion of these issues and the degree to which they are addressed under the Code and to what extent they are being implemented is presented below.

1. **Human safety:** essentially the three protection zones are designed to maximise human safety, from a planning point of view. If implemented as per the Code the Council believes these to be adequate.
2. **Housing standards:** the Code specifically addresses the housing standards that are required in bushfire prone areas. However, once an area is rezoned by the Territory Plan and developed, it is no longer declared bushfire prone. This means new construction in newly developing greenfield subdivisions is required to meet the provisions of the BCA and AS3959, where a bushfire risk assessment has identified a risk and required mitigation measures. These provisions also apply to any extension to an already constructed dwelling that has been built to meet AS3959 or the BCA in a greenfields area, providing that a Precinct Code (under the Territory Plan) identifies the on-going block requirements. For redevelopment or extensions of dwellings in older suburbs there are no applicable requirements, similar to those that apply in greenfields areas,, even where these dwellings are located in areas that have been impacted by a severe bushfire, such as the 2003 bushfire, or where, because of the location in relation to the likely prevailing direction of bushfires, there is a significant potential to be impacted by bushfires.. This is considered by the Council to be inadequate.
3. **Fire fighting capability:** the IAPZ is designed to provide a defensible space to allow firefighters and residents to reduce the impact of bushfires on adjacent assets in a safe manner (ACT Government 2009). However, as the width of the IAPZ is variable, it is possible that firefighter capability and safety may be compromised when a final decision on the width of the IAPZ is determined. Recent research (Bartlett, 2012), based on the 2003 bushfire in Canberra, indicates that even with grassed buffers of between 55 and 82 metres in width forty-three percent of the residences in the first two rows of houses at the urban interface were destroyed as a result of ember attack. This is considered by the Council to be in need of further research and consideration.
4. **Conservation:** under the Territory Plan the objectives of any area within a Nature Reserve or National Park are to conserve the natural environment and to provide for public use of the area for recreation, education and research. In addition ACT and National legislation provide statutory protection for any declared threatened species or ecological community. The issue of whether these objectives can be met if a nature reserve or area containing threatened species is within the OAPZ (where fuel reduction

measures are to be undertaken to reduce fire risk) remains unclear. Maintenance of ecological values may also compromise the ability to adequately manage the land for bushfire fuel hazard. Where evidence exists to indicate that ecologically prescribed fuel management regimes can be undertaken without impacting on particular environmental values or compromising bushfire fuel hazard actions, it may be appropriate for the OAPZ to be within the nature reserve. In all other cases the precautionary principle should be applied, and the OAPZ should be outside areas of ecological significance, as is proposed adjacent to Kama Nature Reserve (Molonglo). This is considered by the Council to be inadequately and inconsistently applied.

Recommendations

- 1. That all future development or modification of buildings in a Home Asset Protection Zone be required to meet the provisions of the BCA and AS3959. Consideration should be given to retention of Bushfire Prone as a category even after suburbs are developed in order to ensure that AS3959 is applied to all redevelopment and housing modifications.*
- 2. Wherever possible the OAPZ should remain outside an area that contains environmental values to prevent any compromise to those values and/or reduction of the effectiveness of actions required for fire fuel management.*
- 3. The ACT should work with other jurisdictions to facilitate more research on the appropriate width of IAPZ buffers at the urban interface.*

3. STRATEGIC BUSHFIRE MANAGEMENT PLANNING and BUSHFIRE OPERATIONAL RISKS

Background

Bushfire management is a multi-agency and multi-disciplinary issue that requires significant longer term planning due particularly to its cyclic nature. This longer term planning must be combined with annual action planning in order to maintain momentum, particularly in fuel management. Coroner Doogan noted specifically in the overview to her recommendations that “the plan must provide a basis for bushfire hazard assessment, and risk analysis and bushfire prevention – including hazard reduction and agency and community preparation for and response to bushfires”.

All of the recommendations in the McLeod and Doogan reports relating to strategic bushfire management planning and bushfire operational risks have now been complied with as a result of implementation actions. However there are some issues that do not fully comply with the intent of the recommendations.

Current Situation Including Non Conformance Issues

The improvement to planning and prioritising began early in the life of the newly formed Emergency Services Authority/Agency (ESA). Section 72 of the Emergencies Act 2004 requires the ESA to prepare for the Minister a draft Strategic Bushfire Management Plan (SBMP) for the Minister to formalise. Version 1 of the plan was introduced on 1 January 2005, for the interim period until 1 July 2005, when version 2 of the plan was to be introduced. However, it took until 1 October 2009 for the second version to be released.

The planning process for fire mitigation has been substantially improved and strengthened over the past ten years. The SBMP (V2) is an effective fire management planning document. Fire mitigation strategies are widely accepted by the community because of the work put into the development of the SBMP and the continuing efforts of TAMS staff to inform interested groups and local communities about their fire management activities.

The ACT SBMP (V2) was developed in association with a community advisory committee as well as expert advice from within and outside ESA and TAMS. It had widespread community support because of extensive community consultations on the detail of the plan, particularly risk assessments and bushfire mitigation strategies at the sub-regional level. The SBMP (V2) has now been operational for four years and has provided an effective base for planning and reporting on bushfire mitigation strategies for that period. It is due for review and renewal by 2014.

Bushfire management plans have been prepared for all land managed by the ACT Government. A Bushfire Operations Plan (BOP) is prepared each year setting out all tasks that need to be completed in order to meet ACT Government land managers' commitment to fire management under the SBMP and Sub-regional Plans. The BOP is the key operational document for TAMS and enables ESA and the Bushfire Council to correlate planned and actual activities against the fifteen-year cycle outlined in the Sub-regional Plans.

The Council has monitored the development and implementation of the TAMS Bushfire Operations Plan (BOP) since the new arrangements were put into place under the provisions of the *Emergencies Act, 2004*. TAMS has achieved a very high level of achievement against the range of planned fire management works under the BOPs over the past four years, except where wet weather has precluded the implementation of some prescribed burns in Namadgi National Park. The BOPs are appreciably more comprehensible than the pre-2003

Bush Fire Fuel Management Plans, and the implementation of the plans are significantly improved.

However, some of the identified risks remain or are re-emerging: confusion over sign-off of the annual TAMS Bushfire Operations Plan; a decrease in funding for fire mitigation activities; and a lack of coordinated fire management plans for non ACT Government managed lands, mean that the risk of reduced capacity to meet future large-scale fire remains.

New Issues and Improvements

There are several emerging risks in the delivery of fire mitigation strategies at the sub-regional level. Firstly funding of the TAMS BOP is being reduced. Other budget priorities are taking precedence as the sense of urgency and commitment to fire mitigation strategies recedes. The Bushfire Council notes with some concern that the cuts for the 2012-13 BOP include substantial training cuts, including participation in national leadership on fire management issues; postponement of activities deemed to be low risk in 2012; auditing and monitoring of fire risk mitigation; and research activities including monitoring ecological impacts of prescribed burns. The ACT Government made a commitment to providing adequate funding for implementation of fire mitigation activities matched to the level of activities as identified to meet the standards defined in the Emergencies Act and SBMP V2, and it is critical that this commitment be maintained, whatever other Budget pressures may be experienced. With the passage of ten years since the 2003 bushfire and the pressure on government budgets, the Council considers that we must not reduce the level of funding and operational effort on fire management in the ACT. If we do, then there is a real risk of returning to the situation that existed prior to 2003 where both incident management capability and the implementation of fire management works on public land were inadequate. Such a situation would inevitably present a real threat to life and property from bushfires in the ACT.

A second risk is the creeping complexity in the process of gaining annual sign-off of the BOP. While the BOP for a coming financial year has traditionally been approved in July, in 2012 this did not occur until November, thus delaying the implementation of fire mitigation activities. In the BOP approval process a draft is initially circulated through various agencies and Bushfire Council provides its comments just prior to final sign off by the ESA Commissioner. Then the process used in 2012 of revising priorities and re-circulating changes appears to be holding up final approval and actioning of the plans and meant that the Bushfire Council did not provide comment on the final version of the BOP. A clear and simple process for sign-off needs to be established so that the plans are in place in a timely fashion so that the Bushfire Council's advice relates to the final draft of the BOP.

The third risk to be noted is that fire management plans for land owned or managed by other government agencies, e.g. the Federal Government, while developed and reviewed by RFS, are not incorporated in the overall ACT SBMP or its Sub-regional plans. This means that potentially there are significant areas of land in the Belconnen and Majura Valley areas where fire mitigation planning is not integrated into the overall strategic approach to fire management in the ACT. This would need to be addressed in a subsequent SBMP.

Recommendations

4. *Funding levels for fire mitigation activities funded under the BOP be maintained at levels to meet the SBMP intentions over a rolling period.*
5. *That the annual sign-off of the BOP be simplified and formalised so that it informs relevant agencies but is ready to be implemented in a timely manner.*
6. *That, where possible, fire management plans of federal agencies and other non ACT Government land managers be incorporated into the SBMP (V2).*
7. *That the Bushfire Council recommends that a review of the SBMP be undertaken in 2013 with particular regard to:*
 - *Cross tenure issues, particularly bushfire mitigation plans for leased and Commonwealth land;*
 - *Cross-border issues, particularly formalising planning with NSW NPWS;*
 - *Reports and recommendations from significant fire experiences since 2003, e.g. Victorian Royal Commission (2009) and the Keelty report on the WA fires in 2011;*
 - *Research conducted since 2003 that throws new light on key areas of fire management and planning, e.g. risk assessment, fire behaviour, width of buffer zones, ecological guidelines and training;*
 - *Bushfire Operation Planning process and reporting;*
 - *Auditing and assessment of ACT fire mitigation activities since 2003; and*
 - *Governance arrangements for the review, adequate resourcing, the community consultation process and expert advice.*

Given the advice from the Smith report, it is essential that achieving bi-partisan and community support for the next iteration of the Strategic Bushfire Management Plan and the Sub Regional Plans is gained through adequate consultation. It is also essential to incorporate experience to date with ACT risk mitigation strategies as well as national research and advice into fire management.

4. FIRE FIGHTING RELATIONSHIPS AND ARRANGEMENTS

Background

In a significant bushfire event effective relationships and arrangements between ACT aligned services, namely the ACT RFS (paid staff and volunteers), the ACT Fire Brigade, now ACT Fire and Rescue, and the ACT Government land managers (Territory and Municipal Services (TAMS)), as well as interstate resources are of vital importance.

In the aftermath of the January 2003 bushfires in the ACT, significant broad ranging problems and issues were identified.

Most of the recommendations in the McLeod and Doogan reports relating to fire fighting relationships and arrangements have now been complied with as a result of implementation actions. However there are some issues that do not fully comply with the intent of the recommendations.

Current Situation Including Non-Conformance Issues

The Emergency Services Authority, now the Emergency Services Agency, (ESA) was established in 2004. The ESA now incorporates services provided by ACT Fire and Rescue, (ACTF&R), the ACT Rural Fire Service (ACT RFS), ACT State emergency Service (ACT SES), and the ACT Ambulance Service. The ESA is designed to provide the ACT with a fully integrated emergency management service.

TAMS has handed management of a number of key hazard reduction burns over to the RFS to be managed by RFS staff and volunteers. This has provided a valuable training resource to the volunteer brigades.

An effective MOU is in place between the ACTF&R and FRNSW (urban fire brigade). An efficient and cooperative relationship exists.

The ESA has also implemented an MOU related to cooperative bushfire management with the NSW RFS. Current arrangements provide for joint operations when bushfires occur in either jurisdiction.

The ESA has the capability to deliver fully integrated interoperable communications systems for all agencies, including NSW RFS and SES, and aircraft involved in fire suppression activities.

Potential non conformity includes:

- Ongoing significant cultural and management differences remain between the services, in particular the RFS and ACTF&R. Both fire services continue to operate under very different Command and Control arrangements.
- Very limited training exercises have been run involving RFS and ACTF&R. Limited training opportunities and exercises between the ACTRFS and the government land management agency (TAMS) exist.
- Pre-formed rostered IMT's involving RFS, ACTF&R and TAMS officers have been put in place during recent fire seasons. These teams and their inter-operability have not been tested.
- Very limited IMT training has been initiated between the RFS, ACTF&R and TAMS.
- While RFS resources continue to be given the opportunity to participate in hazard reduction burns run by TAMS staff, however participation by volunteers has been limited due in the main to volunteer unavailability during business hours.

- Training has occurred between ACT RFS and NSW RFS staff. This training has ranged from basic fire fighting skills to IMT management. There has been limited opportunity for volunteer and TAMS participation in these exercises.
- The ACT RFS is yet to develop a comprehensive competency based training system for IMT roles (refer to chapter on Incident Control System Capability).
- Questions remain regarding the effectiveness of a joint radio communication system.

Recommendations

8. *Urgent need for increased training opportunity and exercise between the ACTRFS and the government land management agency (TAMS).*
9. *Urgent need for increased exercising of preformed IMT teams, those teams comprising of F&RS, RFS and TAMS personnel*
10. *Continue to build on the cooperative training and exercise arrangements between RFS staff, volunteers and TAMS, in particular TAMS providing opportunity for management and coordination of HR burns to RFS staff and volunteers.*
11. *Urgent need for increased training opportunity and exercise between the ACTRFS and adjoining NSW RFS brigades, concentrating on inter-operability between the two services; equipment and importantly communications.*

5. FIRE FIGHTING EQUIPMENT AND SYSTEMS

Background

Fire fighting equipment and systems are critical for the ACT Rural Fire Service's capacity to adequately fight fires. In the aftermath of the 2003 bushfires the ACT was heavily criticised over the fact that it did not have sufficient resources at hand to control the fires, or systems in place to obtain these services. The previous reviews have highlighted a number of areas of inquiry under this heading, including the following:

- Fire fighting machinery – bulldozers, graders, etc
- Aerial fire fighting equipment – helicopters, etc
- Fire fighting equipment – weather stations
- RFS facilities – fire sheds, training rooms, IMT rooms, etc
- Communications Centre (Comcen)
- Communications equipment – portable radios, etc
- Fire Retardant Capability
- GIS and Mapping Products

The ACT has made significant improvements in the last ten years in providing fire fighting equipment and systems. These include a major upgrade of the fire fighting appliance fleet, MOU arrangements with TAMS to provide heavy plant for fire fighting; arrangements with National Aerial Fire fighting Centre to provide access to 2 helicopters both with water bombing capabilities for fire management, building of a new purpose built ESA headquarters at Fairbairn and an outdoor training facility at Hume.

Most of the recommendations in the McLeod and Doogan reports relating to fire fighting equipment and systems have now been complied with as a result of implementation actions. However there are some issues that do not fully comply with the intent of the recommendations.

Current Situation Including Non Conformance Issues

Fire Fighting Machinery – Previous inquiries required Emergency Services to give priority to ensuring it has guaranteed access to an adequate number and type of bulldozers, as well as experienced operators, during the fire season, for immediate deployment as required. Additionally, this plant was to be used so that a program of improved fire access and trail and site maintenance could be implemented.

The Parks and Conservation Service has dedicated units (2 x fast attack dozers (D4) and a grader) for fire suppression and fire trail maintenance since 2004. The TAMS/RFS MOU also identifies that any plant engaged by TAMS for fire operations must have appropriate Roll Over Protection Structure (ROPS) and Falling Object Protection Structure (FOPS for fire work).

In addition, ACT RFS has recently (2012) included an agreement in the MOU with NSW RFS, that the ACT will have access to the NSW panel of heavy plant suppliers for fire fighting purposes, which includes bulldozers and additional plant. The logistics cells of an ACT IMT will be able to contact the State Services desk of NSW RFS and order heavy plant in the same way as aerial support for fires can be ordered. To supplement this arrangement, TAMS have agreed to provide contracted fire fighting plant for RFS operations through their MOU arrangements. Council believes these arrangements comply with recommendations.

Aerial fire fighting equipment – Previous inquiries recommended that the ACT have an aerial bombing capability, with particular emphasis on using a combination of light and medium lift helicopter aircraft for water bombing as an immediate response, as soon as fires are detected. Additionally, the ACT RFS was recommended to seek an agreement with the NSW Rural Fire Service to enhance the ACT capacity to draw on the aerial expertise, including fixed wing fire bombers capable of dropping fire retardant, aircraft availability and efficiencies and to continue to participate in Commonwealth-level discussions that may result in enhanced aerial support for fire fighting becoming available on a national basis in the future.

ESA and NSW RFS have signed an MOU detailing “the co-operative arrangements for bushfire (including aviation management) and related emergency management and supporting services”. The ESA, under arrangements with the National Aerial Firefighting Centre (NAFC), has access to two helicopters both with water bombing capabilities for fire management. The NAFC arrangements also allow the ACT to access additional helicopters on a needs basis from other states. ACT remote area fire teams and brigade ground teams are trained and available to support aerial operations. Council believes that these arrangements comply with recommendations.

Fire fighting equipment – The McLeod Report recommended an automatic weather station should be located in the Brindabella Range to assist with fire weather forecasting. An Automatic weather station was established at Mt Ginini in July 2004. Council believes that these arrangements comply with recommendations.

RFS Facilities - Previous inquiries required that the ACT have purpose built facilities for emergency service management and specifically for Incident Management teams (IMT) to function at a tactical and strategic level in accordance with the Australasian Fire Authorities Council doctrine. Additionally, an outdoor training complex for all of the emergency service organisations should be provided.

ESA now has a purpose-built headquarters at Fairbairn, with up to date IMT capacity. ESA also has a training centre at Hume for all services to use. Council believes that these arrangements comply with recommendations.

Communications Centre (Comcen) - Previous inquiries recommended that the ACT should take urgent steps to upgrade the Emergency Services Bureau’s operational command and control facilities and to ensure they are compatible between all ESA services and with AFP, fire-fighting aircraft and NSW RFS.

Within the purpose-built headquarters at Fairbairn, ESA now has a communications centre which is compatible with all other emergency agencies in the area. While the infrastructure has been built, questions about the efficiency and effectiveness of Comcen operations have been raised and will be dealt with in the section dealing with New Issues and Improvements. Council believes that these arrangements only partially comply with recommendations.

Communications Equipment - Previous inquiries required that the ACT ensure that ACT and NSW Rural Fire Service radio communications systems be capable of being integrated, so that ACT and NSW firefighting units can communicate with each other. Additionally, back-up power should be available for the Canberra Connect call centre.

All ESA and RFS equipped TAMS vehicles have full radio profiles for inter-service communications. In addition, TRN radios for RFS have a full NSW RFS state-wide profile that allows for interstate communications with NSW Fire Agencies. Comcen Operators are able to patch any channel or multi channels within the TRN profile and other external networks such as the local VHF network to avoid fire crews having to monitor or operate on multiple channels. TRN radios have become the principal operating system for all day-to-day radio

communications, emergency, training and hazard reduction operations. Canberra Connect now has back-up power capacity in Macarthur House. Council believes that these arrangements comply with recommendations.

Fire Retardant Capability – The Coronial inquiry recommended that Emergency Services investigate and implement arrangements that will provide the capacity to use fire retardant in remote areas.

A fire retardant trailer has been purchased for the preparation of retardant and RFS staff and volunteers trained in its use. It has been established that retardant may be used in any area of the ACT with the permission of the Incident Controller. Maps have been prepared by TAMS to provide advice to the IC/IMT of areas of environmental significance where damage may occur following the use of retardant, to allow the IC/IMT to make a risk assessment of the use of retardant in these areas. It is widely appreciated that fire retardant is only one of a suite of mechanisms available for use in firefighting. It should also be appreciated that the use of fire retardant, by its nature, involves significant logistic time frames, specifically matters of transport, preparation and application to the fire. While the RFS has not used its new capacity to utilise fire retardant, Council believes that these arrangements fully comply with recommendations, but considers that an operational trial of retardant bombing should be undertaken to test the effectiveness of the arrangements.

GIS and Mapping Products - Previous inquiries recommended that the ACT Emergency Services should coordinate the development of emergency management mapping products such as 'map books' for police, land managers, emergency service crews and incident management teams; these should be produced in both printed and electronic form. Additionally, they recommended that an appropriate geographic information systems capability be maintained to enable the production of fire-specific maps as the need arises and that personnel from the Emergency Services Agency and other agencies be trained in the operation of map production systems, so that maps can be modified to include fire-specific information as required.

Several editions of the ESA Map Atlas have been produced with increasing reliability of underlying data and improvements in presentation. TAMS and ESA have compatible mapping products and data sharing is being undertaken. An ACTF&R urban-rural interface planning project is also underway, deliverables being completion of the Parks Pre-Suppression Resource Atlas, review of the Black Mountain plan, development of the Red Hill plan and bushfire response plans for other identified areas of the interface. Council believes that these arrangements comply with recommendations.

In summary, the Bushfire Council commends the Emergency Services Authority and Territory and Municipal Services Directorate for conforming with virtually all the recommendations from the Coronial, McLeod and Bob Smith reports in relation to Fire Fighting Equipment and Systems.

New Issues and Improvements

ACTRFS Fleet - A very significant improvement has been achieved in the quality, types and numbers of vehicles that now comprise the fire fighting fleet. While many vehicles have been replaced with updated and modern appliances, medium-sized vehicles have replaced several light units based on 4 wheel drive utility type trucks. These light units have served fire fighting efforts in the ACT very well for many years because of their higher speed (giving shorter response times) and maneuverability (especially in rough and steep country) and ability as reconnaissance transport. Light units have also always played a major part in the "early response, rapid initial attack" which enables the RFS firefighters to contain many fires

while they are small. However, with the recently recognised limitations in carrying capacity of 4WD utilities, this has made obtaining a suitable vehicle for this purpose difficult.

Council believes that the RFS should continue to determine a way to keep the fleet of light units. As this is a nation-wide issue in the emergency (especially rural fire) services, the Bushfire Council recommends that RFS champion this cause with the Australasian Fire Authorities Council (AFAC) to identify a vehicle platform that meets this need.

Council also recognises that since 2003, field operations personnel have had enhanced input to the design of tankers and this has been a major factor influencing the improved quality of the firefighting fleet.

The establishment of the program to make available slip-on units to rural landholders in the ACT in 2005 is to be applauded. At the time, the intention was to trial the idea with the issue of 21 slip-ons and to continue the program as funds became available. The trial was a success, with rural landholders appreciative of the units and those with the units feeling more confident in their preparedness for fire incidents in rural areas.

It is notable that rural landholders are conscious of fire risks and are generally very knowledgeable about dealing with fire outbreaks. Any enhancement of this ability is to be encouraged and Council feels that the suspension of the slip-on program is unfortunate and recommends that consideration be given urgently to its reinstatement.

Communications and the Comcen - During the past ten years a major effort has been made to upgrade the communications system hardware used by emergency services in the ACT. This has delivered a multi-channel digital system, the ability to communicate with other emergency services and a more direct means of communicating with interstate neighbouring bushfire organisations. In 2003, there were multiple instances where NSWRFs units were not able to be contacted by local units on the fire ground, leading to serious waste of fire fighting resources which would have been deployed to advantage. The default system of tactical fire ground communications with interstate brigades is now UHF citizens band radio. For incidents within the ACT where multiple bushfire incidents occur, separate digital radio channels are allocated for communications from the fire ground to the incident command centre.

These hardware arrangements took some years to become operational, but are a significant improvement on the system that operated in 2003.

Council does have some serious reservations about the use of the system and believes that there are a number of safety and efficiency improvements which are (and have for some time been) required.

The first and most important of these is the operation of the Comcen (Communications Centre). Under present arrangements the Comcen acts as a voice mail box where radio messages are exchanged through the Comcen acting as a third party in the message. Operators in the Comcen are not authorised, or equipped to respond to, messages to or from the fire ground, and the resulting delays (some of excessive length) do not reflect an efficient communications network. Additionally, the present operations consume unsatisfactorily large amounts of time on the network.

This kind of communications operation, while fully appropriate for urban operations and command and control systems, is unsuited to landscape firefighting operations.

All this means that exchange of information is very significantly slower than, for example, in any of the three NSWRFs Zones adjoining the ACT. One of the reasons for this is that radio operators in those zones are bushfire trained and knowledgeable of their district, so that directional instructions, for example, are quickly understood.

The fact remains that in critically urgent situations that can arise in bushfire operations any delay in communications can be most important. There exists potential for the present system to become a factor contributing to such situations should they arise.

Council recommends that serious consideration should be given to some refinement to the manner in which communications for the ACTRFS are addressed.

Recommendations

- 12. The ACTRFS should lead the debate with the Australasian Fire Authorities Council (AFAC) to identify a vehicle platform that meets the need for a small, mobile and quick-responding light unit.*
- 13. The ACTRFS continue to implement the provision of fire fighting slip-ons to rural land holders in the ACT.*
- 14. ESA undertake further consideration of the effectiveness of Comcen to dispatch and manage radio traffic for the RFS and consider alternative arrangements.*

6. INCIDENT CONTROL SYSTEM

Background

Once a significant bushfire breaks out, the manner in which the incident is managed and resourced as well as the capabilities of the various staff involved have a large bearing on the effectiveness of the fire suppression operations. In the aftermath of the 2003 bushfires, the ACT was heavily criticised over the fact that it did not implement incident control arrangements in accordance with the nationally accepted Australasian Inter-service Incident Management System (AIIMS) Incident Control System and for not having sufficiently competent people in some of the key incident management roles. The Coronial and McLeod Inquiries identified many issues related to incident control capability and implementation at the time of the 2003 bushfires.

Most of the recommendations in the McLeod and Doogan reports relating to incident control systems have now been complied with as a result of implementation actions. However there are some issues that do not fully comply with the intent of the recommendations.

Current Situation Including Non-Conformance Issues

Over the past 10 years, a considerable effort has been put in by the ESA to ensure that its incident management arrangements are consistent with the AAIMS. When Incident Management Teams (IMT) are appointed for bushfires in the ACT, appointments to the various IMT roles can be made from RFS, TAMS and FRS agencies. The ESA now has a "state of the art" Incident Management facility at Fairbairn which enables it to manage bushfires at both the strategic and tactical levels and ensure that all aspects of incident management are fully integrated and that the community receives up to date information on fire threats. The ESA can also use other facilities such as ESA Joint facilities and the TAMS Stromlo Depot to support the effective functioning of Incident Management Teams, at locations close to where the fires are being managed. Some notable improvements to the ACT's incident control capability include:

- Some key elements of the strategic fire suppression track network, such as Mt Franklin Road and Stockyard Spur trail have been upgraded;
- The RFS has access to four officers who are capable of conducting risk analysis and fire behaviour predictions in an IMT;
- The RFS has the capacity to provide up to date fire management knowledge and mapping products to firefighters during bushfires; and
- The ESA has a media and community information protocol and template messages for all levels of bushfire threat in line with the national recommendations.

To reinforce the integrated nature of firefighting arrangements and to make it absolutely clear how the various services will operate in a seamless and co-ordinated manner when there are bushfires in and around Canberra, the ESA has developed the "Concept of Operations for Bush and Grass Fires in the ACT" which has been established under a Commissioner's Guideline. This new arrangement strengthens the governance of fire management arrangements in the ACT and removes the long standing ambiguities associated with conduct of bushfire suppression in the Bushfire Abatement Zone. This document describes the functions and capacities of ACT F&R and ACT RFS as well as how incident command and control, including appointment of the Incident Controller, will

operate in the ACT. It also includes the new arrangements for selection, assessment of competence, endorsement and maintenance of skills for Level 2 and 3 Incident Management personnel. This new system will be phased in before the start of the 2013-14 bushfire season.

The ACT Bushfire Council considers that there are two issues related to Incident Control Capability where the ACT system still does not conform with the intent of the recommendations. These are:

- Adopting a more rigorous risk management approach to incident management including an emphasis on community information strategies; and
- Appointing incident management team personnel based solely on competence and experience and increasing the training of people likely to perform functions in an IMT.

While the ACT has two officers trained in fire prediction, it is not evident that the RFS has embedded more rigorous and formalised risk management approaches in its incident management arrangements to enable risk-based predictions of bushfire threats rather than a single fire spread prediction based on the forecast weather.

The RFS is yet to develop a register or implement a comprehensive competency based training system for all firefighters who will have roles in Incident Management Teams. While the RFS has prepared a list of personnel whom it considers have the competencies and experience to fill IMT positions at Level 2 and Level 3 Incidents, this is not supported by evidence of actual competencies. The Bushfire Council has indicated that it considers that the ACT needs to be in a position where it can establish and maintain two Level 3 Incident Management Teams on a two shift basis, thereby requiring a minimum of 4 trained and experienced personnel for each of the key roles in the expanded incident management structure. At present there are only three officers nominated to fill the role of Incident Controller at Level 3 incidents and one of these is the Chief Officer. The lack of senior experienced Incident Controllers presents an ongoing risk to the ACT in the event of multiple large fires occurring within the ACT.

The ACT Bushfire Council considers that there are five issues related to Incident Control Capability where the ACT system only partially conforms with the intent of the recommendations. These are:

- Implementing joint incident management teams as part of ACT/NSW unified control arrangements for bushfires occurring in one jurisdiction but likely to threaten the other jurisdiction;
- That specific arrangements have been established and tested to implement a planning structure for jointly undertaking on-going and comprehensive risk assessment impacts of potential fires on each other's jurisdiction.
- That the latest information on wildfire behaviour is well understood by all RFS firefighters;
- That senior officers in TAMS have appropriate experience in fire management; and
- That TAMS officers are responsible for the initial response to all fires on land that it manages.

The basis for cross-border fire management arrangements in the event of a fire in one jurisdiction having the potential to threaten assets in the other jurisdiction is a Memorandum of Understanding between the ACT and NSW fire authorities. While the

Bushfire Council understands that this Memorandum of Understanding was updated in 2012, the details have not been presented to the Bushfire Council. This MOU needs to provide the prearranged basis for joint appointments to a single Incident Management Team for bushfires threatening each other's jurisdiction, as well as co-ordinated risk assessment, suppression planning and community information.

New Issues and Improvements

The Bushfire Council and staff from RFS and TAMS have monitored the findings from the inquiries of significant bushfires that have occurred in other jurisdictions, particularly the 2009 Victorian bushfires. The ACT has adopted the approach of participating in national processes to implement uniform systems in response to specific recommendations from that inquiry. The Bushfire Council considers it important that senior TAMS and RFS staff continue to participate and play leadership roles in these national bushfire forums.

While excellent progress has been made in addressing overall incident management capability in the ACT since 2003, the Bushfire Council considers that there is a strong need to remain vigilant to ensure that the ACT's capability to manage large bushfires is maintained. To this end, the Council notes two concerns:

- The absence of any significant fires in the ACT over the past 10 years means that many of the nominated incident management personnel have not had recent experience in managing Level 3 bushfires. Likewise the lack of recent experience among firefighters in implementing large scale indirect suppression strategies, such as backburning, could present a problem if this skill is needed in the future; and
- With the passage of ten years and the pressure on government budgets, the level of effort on fire management in the ACT must not be reduced, otherwise there is a real risk of returning to the situation that existed in 2003 where both incident management capability and the implementation of fire management works on public land were inadequate.

Recommendations

- 15. There is an urgent need to train and mentor additional Level 3 Incident Controllers.*
- 16. There needs to be enhanced effort to improve the ACT's capacity and operational experience to predict wildfire development based on risk scenarios.*
- 17. The competency register for Level 2 and Level 3 ICS personnel needs to be developed and aligned to an ongoing competency based training program within the ACT and interstate to enhance the expertise of all these personnel.*
- 18. Opportunities need to be actively facilitated for all Level 2 and Level 3 ICS personnel to gain experience in managing Level 3 bushfires via deployments to bushfires in other jurisdictions and for these officer to participate in Incident Management Teams at bushfires in surrounding regions of NSW.*
- 19. Senior staff from RFS and TAMs should continue to participate effectively in national fire management fora.*

7. COMMUNITY EDUCATION AND AWARENESS

Background

As a result of implementation actions, all of the recommendations in the McLeod and Doogan reports relating to community education and awareness have now been largely complied with. However there are some issues that do not fully comply with the intent of the recommendations, either because it has apparently not been deemed necessary in low fire risk seasons, or because of the difficulty in assessing the effectiveness of community education programs.

RFS Program for bushfire awareness

During the past year the RFS Community Engagement Team has expanded to at least 25 people, including volunteers and six social media specialists. The Team goes to local primary schools and community events where they distribute handouts and encourage people to get information from the ESA website. To raise the profile of the RFS, they have negotiated with McDonalds to get their message on tray mats for the next bushfire season. To engage with newcomers to Canberra, each year they give a presentation at the US Embassy as that involves about 500 families of people who work there. They also talk to international students at CIT.

Since January 2011, the ACTRFS has used social media for community engagement – Facebook, Twitter and a blog. They can gauge the effectiveness by the numbers of followers.

Facebook has 530 followers. 225 people on average view each post. The potential reach via virality is over 145,000 people because of viewing by friends of followers. ACTRFS Twitter has 740 followers – all Facebook postings automatically go on to Twitter. The ACTRFS blog averages 850 visitors per month viewing over 1,660 posts. The blog enables open discussions with people who have questions. Since its launch, over 36,600 pages have been viewed with over 14,000 visitors. It is important to note that during this time there were no major incidents.

ACT Fire and Rescue Program for Bushfire Awareness

A noteworthy innovation since 2003 has been the establishment by ACTF&R of the Community Fire Units (CFUs) in the urban interface, and reports are generally favourable. The 49 CFUs currently have 750 - 900 members. They are trained to protect property in their immediate area and they engage with the community.

ACTF&R places great importance on encouraging people to be independent. They tell them that firefighters may not be able to get to them, and reinforce this message, they provide statistics, they warn them that a mobile phone may not work in a fire, and tell them to listen to the ABC radio. ESA media provides updates.

Compressed air foam system trucks (CAFs) drive through the interface zones and engage with residents on a one-on-one basis. They particularly emphasise the danger of complacency, and they advise on preparedness and things that need to be done on their properties. They can also come back later and check whether the resident has acted on their advice.

New Issues and Improvements

The ACT Bushfire Council has reported several times that there has been no visible attempt to measure the impact of publicity regarding bushfire awareness.

However, Council has just been made aware that the effectiveness of bushfire emergency communications during the Summer of 2010-2011 was assessed by a telephone poll (Winton Sustainable Research Strategies, 2011). It asked about “Prepare, Act, Survive”, the Fire Danger Rating, whether people had a Bushfire Survival Plan, and the Farm Firewise Program. Awareness of “Prepare, Act, Survive” was good – over 80% had heard of it and nearly all of these knew what it meant. Almost 90% knew the purpose of the Fire Danger Rating but many were not clear on the details and only 5% had actively sought out the Daily Rating. Approximately one third said that they had a Bushfire Survival Plan. One of the 30 people who lived in a rural or bush area said that they have participated in the Farm Firewise Program.

At present, assessment of the impact of bushfire awareness publicity seems to depend mainly on measuring the number of hits on social media. However, \$50,000 has recently been allocated to the Media Unit to measure the effectiveness of the community education program.

There are three main “sub-populations” in the ACT:

1. Residents in rural areas – Farm Fire Wise currently seems to have reached most properties, with good results. However, only one of the 30 people who lived in a rural or bush area said that they had participated in the program during the Summer of 2010-2011, according to the 2011 telephone poll.
2. Residents on urban fringes – it is not known whether awareness raising has been successful, but the 49 Community Fire Units and the CAFs are active there. Progress on this should be reported to the Council.
3. City dwellers – bushfire awareness is through media releases, interviews, and community events.

Recommendations

20. *Resources be allocated to devise strategies for assessing the effectiveness of the various bushfire awareness-raising strategies; and*
21. *Effectiveness of these awareness-raising strategies be assessed.*
22. *The Bushfire Council be briefed periodically on the progress and results of the recently funded project to assess the effectiveness of community education programs.*

REFERENCES

- ACT/NSW Local Area Mutual Aid Agreement, ACT RFS/NSW RFS, September 2012
- Bartlett A.G., 2012. Fire management strategies for *Pinus radiata* plantations near urban areas. **Australian Forestry** 75 (1) 43 - 53.
- Doogan M., "The Canberra Firestorm: Inquests and Inquiry into Four Deaths and Four Fires between 8 and 18 January 2003", December 2006
- McLeod, R., "Inquiry into the Operational Response to the January 2003 Bushfire in ACT", 1st August 2003
- Memorandum of Understanding between New South Wales Rural Fire Service and the Australian Capital Territory Emergency Services, November 2012
- Smith 2009, "Government Agreed Recommendations from McLeod Report and Doogan Coronial Inquiry into the 2003 Canberra Bushfires - Implementation Report", 28th June 2009
- Winton Sustainable Research Strategies, 2011. Draft report on a telephone survey of awareness and attitudes to bushfire emergency communications during the Summer of 2010-11. Confidential report to ACT Emergency Services Agency.

ATTACHMENT A. – EXTRACTS FROM SMITH REPORT UPDATED TO SHOW COMPLIANCE IN 2012

McLeod/Doogan recommendations	Smith Report (2009) recommendations	ACT Bushfire Council (2012) statements
Bushfires and Land Planning		
A fire-abatement zone should be defined between the north-west and western perimeter of Canberra and the Murrumbidgee River and the foothills of the Brindabella Range.	Bushfire Abatement Zones were defined in SBMP (Version 1) for these lands.	Actions conform. SBMP Version 2 is the current version. The Bushfire Abatement Zone is defined by the BAZ map which is signed off by the ESA Commissioner.
A set of Bushfire Protection Planning Principles in relation to fire mitigation and suppression should be adopted and applied to future developments in the designated abatement zone.	The Planning and Land Authority has adopted ' <i>Planning for Bushfire Risk Mitigation</i> ' as Planning Guideline under the Territory Plan. It is noted that Guideline is currently being reviewed.	Actions conform. The document Bushfire Risk Mitigation General Code is a Notifiable Instrument effective as of March 31 2008 under the Territory Plan 2008 General Codes 11.11. The document is shown as under review, however the requirement for development to meet the provisions of the BCA and AS 3959 stand under the Bushfire Risk Mitigation General Code Matters relating to the extent and standards for Asset Protection Zones and access are established in the SBMP and as such are enforceable. The ESA further supports the code and SBMP standards through internal guidelines, such as edge roads standards and standards of building construction under AS3959.
The abatement zone should be declared a bushfire-prone area, and the requirements of the Building Code of Australia-in particular, its standards for bushfire-prone areas-should be applied to all future developments in the zone.	Refer to response above.	Actions conform. <i>Under the ACT Building Regulations 2008</i> , non urban areas, which include the BAZ are declared Bushfire prone and are subject to the Building Code standards. The Environment and Sustainable Development Directorate (ESDD) is reviewing this General Code under

McLeod/Doogan recommendations	Smith Report (2009) recommendations	ACT Bushfire Council (2012) statements
		the Territory Plan in conjunction with the ESA. As part of this process, consideration will be given to incorporating specific provisions relating to development in the ACT into the Residential Subdivision Development Code of the Territory Plan.
That the Emergency Services Agency adopt a more rigorous risk management approach to incident management and prediction – with particular emphasis on the development of improved community information strategies and protocols.	MAR to embed more rigorous and formalised risk management approaches in incident management and prediction of bushfire threats, and the effective communication of knowledge to community in a timely manner.	Actions partially conform. While the ACT has participated in and uses the national Elevated Fire Danger Plan warning guides, it is not apparent that additional action has been taken by ESA for incident management. Due to the absence of large fires or specific training exercise on use of risk management approaches in incident planning for large bushfires there remains a significant risk that IMT staff will not have the capability to ensure this adequately implemented at large fires.
That before each fire season the Emergency Services Agency, in conjunction with the Bush Fire Council – and after consultation with the relevant ACT agencies, the Bureau of Meteorology, relevant NSW agencies and the community – conduct a qualitative risk analysis of the conditions and circumstances prevailing and forecast and develop strategies to ensure heightened preparedness during seasons identified as severe.	The ACTRFS, as part of Pre-Season Checklist process, conducted a Pre-Season Workshop in November 2008 to discuss issues relevant to upcoming season. Attendees at Workshop included ACTRFS, ACTFB, other agencies, Communications Centre Manager and Bureau of Meteorology (BOM).	Actions conform – Pre-season workshops held. (NB awaiting info from RFS re Risk Analysis)
That version 2 of the Strategic Bushfire Management Plan be completed and introduced without delay.	MAR to finalise SBMP (V2).	Actions conform.
That a hazard-reduction	MAR, in context of hazard	Actions conform (with

McLeod/Doogan recommendations	Smith Report (2009) recommendations	ACT Bushfire Council (2012) statements
<p>program be introduced, involving regular and strategic burning in all areas of the ACT – including the catchment areas – with a view to having fuel-reduced areas in a pattern across the landscape, excluding only small areas of particular ecological or conservation importance.</p>	<p>reduction activities, to develop, implement and communicate processes and track on-ground outcomes – using risk management principles - which balance the diverse interests and multiple responses associated with:</p> <p>Tradeoffs in the protection of ecological/social and physical assets;</p> <p>Community understandings, expectations and acceptance of impacts and consequences of different levels of hazard reduction in terms of lifestyle and potential impacts on communities from different levels of bushfire threat;</p> <p>Timely implementation arrangements.</p>	<p>implementation of SBMP2 and Regional Plans).</p>
<p>Four rural pumpers should be added to the fire service fleet, specifically for use in the urban-rural interface.</p>	<p>Additional equipment has been deployed including:</p> <p>4 rural interface tankers equipped with CAFS (ACT FB)</p> <p>6 CAFS tankers (ACT RFS)</p> <p>21 slip-on units supplied to rural leases</p> <p>9 slip-on units supplied Government land managers</p> <p>Actions conform.</p>	<p>Actions conform.</p>
<p>Sufficient funding should be provided for additional crews and plant, so that a program of improved fire access and trail and site maintenance can be implemented.</p>	<p>TAMS is provided with specific funding to undertake fire trail management consistent with BOPs.</p> <p>In addition, direct funding – now part of recurrent funding – provided to TAMS for hire of seasonal first</p>	<p>Actions conform.</p>

McLeod/Doogan recommendations	Smith Report (2009) recommendations	ACT Bushfire Council (2012) statements
	<p>attack plant for fire suppression and undertaking BOP activities including trail and access maintenance when not in use for rapid response action.</p> <p>Actions conform.</p>	
<p>That the Emergency Services Agency review the level of understanding among firefighting personnel of the latest information available nationally and internationally about wildfire behaviour and suppression and provide additional training if warranted.</p>	<p>SAR to implement more user friendly access by fire fighters to relevant and practical information.</p>	<p>Actions partially conform. A lot more information is available about wildfire behaviour, although it is likely that this is not well understood by all RFS firefighters.</p>
<p>That the Emergency Services Agency give priority to ensuring it has guaranteed access to an adequate number and type of bulldozers, as well as experienced operators, during the fire season, for immediate deployment as required.</p>	<p>TAMS has annual contract for provision of two D4 dozers plus grader. Heavy equipment, operated by experienced personnel, is available for immediate deployment based on levels of readiness.</p> <p>Contractual arrangements between ESA and TAMS need to be implemented to ensure that heavy equipment contracted by TAMS meets ESA requirements.</p> <p>Supplementary Action required</p>	<p>MOU with NSW RFS, that the ACT will have access to the NSW panel of heavy plant suppliers for fire fighting purposes.</p> <p>MOU with TAMS will allow RFS to obtain locally sourced heavy plant through contractual arrangements with TAMS and suppliers</p> <p>Actions conform.</p>
<p>Aerial bombing should remain a capability used in the ACT during bushfires, with particular emphasis on using the aircraft for water bombing as an immediate response – as soon as fires are detected. This should be backed up by the use of ground crews.</p>	<p>The ESA, under arrangements with NAFC, has access to 2 helicopters both with water bombing capabilities for fire management.</p> <p>The NAFC arrangements also allow the ACT to access additional helicopters on a needs basis from other</p>	<p>Actions conform.</p>

McLeod/Doogan recommendations	Smith Report (2009) recommendations	ACT Bushfire Council (2012) statements
	<p>states. Ground crews (RAFT and Brigades) are available to support aerial operations.</p> <p>Actions conform.</p>	
<p>To enhance its initial attack capability as well as to provide it with greater flexibility in the utilisation of aerial assets, the ACT should employ a medium-lift helicopter, rather than a dedicated light helicopter, to support its fire-suppression operations during the peak of future bushfire seasons. Such an aircraft, coupled with the potential use of the Snowy Hydro Southcare helicopter (when it is not engaged for medivac purposes), would provide greater flexibility and a far more formidable first-strike capability.</p>	<p>Refer to response to Rec. 13.</p> <p>Actions conform.</p>	<p>Actions conform.</p>
<p>The ACT Bushfire Service should seek a joint agreement with the NSW Rural Fire Service, for the purpose of providing the ACT with enhanced capacity to draw on the aerial expertise, aircraft availability and efficiencies afforded by a much larger bushfire service.</p>	<p>In addition to comments under Rec. 13, ESA and NSW RFS have signed an MOU detailing “the co-operative arrangements for bushfire (including aviation management) and related emergency management and supporting services”.</p> <p>Actions conform.</p>	<p>Actions conform.</p>
<p>The ACT should continue to participate in Commonwealth-level discussions that may result in enhanced aerial support for firefighting becoming available on a national basis in the future.</p>	<p>Co-ordinated by NAFC. Refer to response to Rec. 13.</p> <p>Actions conform.</p>	<p>Actions conform.</p>
<p>That helicopters be used wherever possible to facilitate the rapid deployment of</p>	<p>Implemented. Also refer to response to Rec. 25. Actions conform.</p>	<p>Actions conform.</p>

McLeod/Doogan recommendations	Smith Report (2009) recommendations	ACT Bushfire Council (2012) statements
remote area fire fighting crews.		
An automatic weather station should be located in the Brindabella Range to assist with fire weather forecasting.	Automatic weather station established at Mt Ginini (July 2004) Actions conform.	Actions conform.
Facilities at ESB headquarters should be such as to provide the best opportunity for the ICS to function at a tactical and strategic level in accordance with the Australasian Fire Authorities Council doctrine.	ESA's facilities provide separate facilities for incident control. Actions conform.	Actions conform.
An outdoor training complex for all of the emergency service organisations should be provided; ESB should develop a detailed proposal for submission to government for consideration.	Proposal to establish an outdoor training complex for all emergency personnel currently being developed. Considered a works-in-progress. Supplementary Action required to finalise and implement proposals.	Hume training centre is complete and operational. Actions conform.
That the Emergency Services Agency be relocated into accommodation that is purpose-built and more suited to the agency's operations than the current facility at Curtin. Facilities at ESB headquarters should be such as to provide the best opportunity for the ICS to function at a tactical and strategic level	Emergency Services Agency currently consolidated in upgraded facilities located at Curtin, ACT. Plans to relocate ESA into purpose built accommodation have not been finalised. Supplementary actions required to finalise and implement ACT Government agreed plans for accommodation of ESA in purpose built facility	ESA moved to new purpose built premises at Fairbairn. The ESA headquarters are fully operational and includes adequate facilities to undertake both strategic and tactical functions during large bushfires. Actions conform.
The ACT Government should take urgent steps to upgrade the Emergency Services Bureau's operational command and control facilities-either by carrying out a major refurbishment of the existing	ESA's operational command and control facilities currently consolidated in facility located at Curtin ACT. Plans to upgrade operations centre have not been	See above. Actions conform.

McLeod/Doogan recommendations	Smith Report (2009) recommendations	ACT Bushfire Council (2012) statements
facility at Curtin or, preferably, by locating to a more suitable alternative site, where a more functional, longer term operations centre can be developed.	finalised.	
Media communications systems and facilities at ESA headquarters should be improved.	ESA Headquarters provide dedicated facilities for media communication. Actions conform.	Actions conform.
That the Emergency Services Agency review the communications systems used by the four services (the ACT Ambulance Service, the ACT Rural Fire Service, the ACT State Emergency Service and the ACT Fire Brigade), by the Australian Federal Police, by NSW emergency services and by aircraft and ensure the systems are compatible.	ESA has capability to deliver fully integrated interoperable communication system for all agencies (including NSW emergency services) and aircraft involved in fire management. During interviews with staff and volunteers indication that additional training is required to strengthen the capability of staff to utilize the benefits of the integrated communication system. Supplementary action required to increase opportunities for staff and volunteers to gain operational experience in the effective use of integrated communication systems during bushfire conditions.	Council questions the efficiency and effectiveness of Comcen operations. Partially complies
Back-up power should be available for the Canberra Connect call centre.	Back-up generator installed. Actions conform.	Actions conform.
That measures be taken to ensure that ACT and NSW Rural Fire Service radio communications systems are integrated, so that ACT and	Structurally radio communication systems of NSW and ACT are integrated. In practice protocols and on-going	Actions conform.

McLeod/Doogan recommendations	Smith Report (2009) recommendations	ACT Bushfire Council (2012) statements
NSW firefighting units can communicate with each other.	<p>training needs to be implemented to enhance inter-operability of radio communication systems across jurisdictions.</p> <p>Supplementary action required to enhance and maintain capabilities of staff and volunteers to effectively utilise communication resources during bushfire operations.</p>	
That the Emergency Services Agency investigate and implement arrangements that will provide the capacity to use fire retardant in remote areas.	<p>Work is on-going by TAMS and ESA to finalise policy and identify areas where retardants can be deployed. Currently ESA has no approved policy for use of fire retardant in remote areas.</p> <p>Major actions required to implement approved arrangements for use of fire retardant in remote areas.</p> <p>MAR to implement approved arrangements for use of fire retardant in remote areas.</p> <p>Responsibility: ESA in consultation with TAMS.</p>	<p>Fire retardant trailer purchased and training provided to local crews. NSW crews have access to trailer.</p> <p>Actions conform in principle, Retardant may be used in any area of the ACT at the permission of the Incident Controller. TAMS has prepared maps of areas of environmental significance where damage may occur following the use of retardant. It is unclear if the mix retardant at Canberra airport has been maintained.</p> <p>Fire retardant trailer purchased and training provided to local crews. NSW crews have access to trailer.</p>
The ACT Bushfire Service should explore conducting a joint trial with the NSW Rural Fire Service to assess the effectiveness of retardant bombing.	<p>Trial conducted by Bushfire CRC.</p> <p>Actions conform.</p>	Actions conform.
ESB should coordinate the development of emergency management mapping products such as 'map books' for police, land managers, emergency service crews and incident management teams; these should be produced in	<p>Every ESA emergency vehicle has copy of Operational Atlas. Copies also available for use by ACT and NSW police and other emergency services operating in region.</p> <p>Some evidence from interviews that current map</p>	Actions conform.

McLeod/Doogan recommendations	Smith Report (2009) recommendations	ACT Bushfire Council (2012) statements
both printed and data form.	<p>products not effective for operational purposes.</p> <p>To improve the effectiveness and levels of use by emergency services staff and other managers a project has been commenced by ESA to improve the format and content of map products for use by emergency service personnel.</p> <p>Supplementary actions required to standardise and distribute map products which more fully meet requirements of users.</p>	
<p>That the Emergency Services Agency introduce a program with land management agencies in the ACT to ensure that maps of all public and private land in the ACT are subjected to regular review and amendment as required. Maps of a scale sufficient to facilitate fire management operations should be available in printed form and maintained on an electronic database capable of modification to add relevant features during firefighting operation.</p>	<p>Protocols have been developed and implemented between ESA and TAMS (Division of Parks, Conservation and Lands) to formalize arrangements for integrated and regular review and amendment of maps to facilitate fire management operations.</p> <p>Currently ESA is finalising a Project to update, enhance and make more user friendly mapping products, including pre-incident mapping formats, for use by emergency services and land managers in planning and operational activities.</p> <p>Supplementary actions required to finalise protocols between ESA and TAMS for provision of integrated and specified mapping products for use in fire management.</p>	Actions conform.
That an appropriate geographic information systems capability be maintained to enable the	ESA has technical resources and facilities to produce and distribute fire-specific maps	<p>Actions conform.</p> <p>The ESA has a permanent GIS section of 4 staff supported by the</p>

McLeod/Doogan recommendations	Smith Report (2009) recommendations	ACT Bushfire Council (2012) statements
production of fire-specific maps as the need arises and that personnel from the Emergency Services Agency and other agencies be trained in the operation of map production systems, so that maps can be modified to include fire-specific information as required.	in a timely manner. Actions conform.	MAPS volunteer unit. This unit is made up of GIS professionals from government and private sector in the ACT.
Community Consultation and Awareness		
That the Emergency Services Agency take measures to ensure that the community regularly receives up-to-date information on the risk of bushfires.	ESA implements a comprehensive community education program branded under Fire Wise. Communications with the community are supported by media announcements on individual and community safety issues during bushfires and hazard reduction burns.	Actions conform.
That the Emergency Services Agency establish annual targets for the introduction of community education programs and provide resources to conduct regular independent assessments of the level of community preparedness engendered as a result of the programs.	The ESA annually allocates resources for community preparedness programs. The Bushfire CRC undertakes projects to assess the effectiveness of community education and preparedness programs across Australia. The ESA utilises the results of these projects to refine community education programs for bushfire awareness including preparedness. Currently the ESA does not undertake regular independent assessment of the effectiveness of community preparedness programs. It is noted that	The amount dedicated to bushfire awareness varies from season to season. Effectiveness of bushfire emergency communications during the Summer of 2010-2011 was assessed by a telephone poll. \$50,000 has been allocated to the Media unit to assess the effectiveness of the community education program. Success of social media initiatives gauged by numbers of hits.

McLeod/Doogan recommendations	Smith Report (2009) recommendations	ACT Bushfire Council (2012) statements
	ESA Business Plan 2007-2010 has a component to review effectiveness of public awareness and community education.	
That implementation of the Bushfire Wise Program continue and include a letterbox drop of the updated Bushfire Information Booklet.	<p>The Booklet “Bushfires and the Bush Capital – A Guide for the ACT” – an update of the Bushfire Information Booklet – was included as a supplement to Canberra Times on Sunday 10/10/2004.</p> <p>Current community education programs built around Fire Wise branding</p>	Actions conform.
That consultations and negotiations occur between the Emergency Services Agency and the NSW Rural Fire Service to ensure that fire risk and safety messages to the community are coordinated. Maximum use should be made of television and radio announcements throughout the ACT and southern NSW, consistent with NSW timetables for targeted programs in conjunction with the United Fire fighters Union ACT Branch and volunteer fire brigade representatives. The Emergency Services Agency should consider using ACT Fire Brigade staff and ACT Rural Fire Service volunteers to talk to groups in the community on request, thus furthering face-to-face community education in high-risk suburban areas of the ACT.	<p>ESA and NSW RFS co-ordinate fire risk and safety messages to the community where there is potential for cross-jurisdictional impacts.</p> <p>Also ESA facilitates on-going community education across the ACT using the services of ACT Fire Brigades and ACT RFS volunteers.</p>	Actions conform.
Warnings		
That the Emergency Services	ESA has adapted and	Actions conform.

McLeod/Doogan recommendations	Smith Report (2009) recommendations	ACT Bushfire Council (2012) statements
<p>Agency publicise and demonstrate the use of the Standard Emergency Warning Signal and provide to the community adequate explanation of the application of the signal. This should occur at least annually, in conjunction with any pre-summer fire awareness initiatives.</p>	<p>implements SEWS for educating and informing the community of bushfire threats.</p>	<p>Now uses social media also</p>
<p>That the Emergency Services Agency staff the Media Unit within its Planning Section with professional, experienced information officers skills in dissemination of information and media management and liaison.</p>	<p>ESA employs media professionals to strengthen the dissemination of information, and media management and liaison.</p>	<p>Actions conform.</p>
<p>That the Emergency Services Agency develop a clear policy for disseminating information to the public and the media in times of emergency and that, as required, that policy incorporate advance door-knocking of homes in the area affected, as well as regular broadcasts by local radio and television stations and regular updates on the relevant website – be that Canberra Connect or a different ACT government website – as well as the Emergency Services Agency’s website.</p>	<p>ESA has developed and implements policies and processes to disseminate information in times of emergency. (Refer to booklet “Bushfire and the Bush Capital – A Guide for ACT” and “Emergencies and the National Capital – A Resident’s Guide”.</p> <p>In practice during bushfire emergencies there are regular media broadcasts and updates on ESA websites. Door knocking is also undertaken when considered appropriate.</p>	<p>Actions conform.</p>
<p>That the Emergency Services Agency conduct investigations – and liaise with emergency services agencies in other jurisdictions – in order to ascertain what technologies exist and are effective for use in disseminating warnings and associated information to the</p>	<p>ACT Government has adopted the All Hazard Warning System.</p>	<p>Text messaging is being trialled and refined.</p> <p>System is under review following fire in Mitchell.</p>

McLeod/Doogan recommendations	Smith Report (2009) recommendations	ACT Bushfire Council (2012) statements
community of the ACT.		
That a system of public warnings that uses grid references shown on the maps in the Canberra telephone directory be adopted.	Public warning system has utilized grid references from Canberra Telephone Directory since 2004.	Actions conform.
That community education programs provide information about fire behaviour, urban design principles that contribute to a specific level of risk, and the benefits of fitting basic ember protection materials in areas at risk from bushfire.	Community education programs provide information on fire behaviour, urban design and fire risks and protection of property from bushfires, including ember attack.	ESA did not include this in their program in the past two years because of the mild seasons.
That the community be made aware of the risk presented by heavy loads of garden fuels and certain types of vegetation around their houses and take active, regular measures to reduce that risk.	The community has been made aware of risks of heavy loads of garden fuels and certain vegetation types through publications and publicising booklets "Firewise Home Gardens" and "Bushfires and the Bush Capital – A Guide for ACT".	Not done recently because of mild fire seasons.
That community education programs include unambiguous information that at times of unusually high water demand there might be a drop in or loss of water pressure and it might be appropriate for residents who intend to remain and fight a fire to have auxiliary water pumps or booster pumps.	Addressed in publication "Bushfire and the Bush Capital – A Guide for ACT".	Actions conform.
Relationship between the Fire Management and Land Management agencies		
The Chief Executives of the Department of Urban Services and the Department of Justice and Community Safety should work together to develop the means by which the public land	Addressed through Emergency Act 2004.	An improved working relationship between the department of Urban Services (now TAMS) and JACS does exist. However Bushfire Council considers

McLeod/Doogan recommendations	Smith Report (2009) recommendations	ACT Bushfire Council (2012) statements
managers and the ACT Bushfire Service can achieve a stronger, mutually supportive relationship.		there remains a degree of what might be described as “competitiveness” between the operational levels of the Departments.
Operational procedures should be amended once additional land management resources are in place, to reflect the responsibility of land managers to initiate the first response to fires on land that they manage- within the overall operational response of the ACT bushfire Service.	Implemented via on-going meetings between Commissioner ESA and Director of Parks, Conservation and Lands Division (TAMS).	Actions conform: the closest, most appropriate unit, regardless of which agency “owns” that unit. Recently introduced (to RFS) MDT system actively informs both ESA Comcen and attending units of initial response situation HOWEVER MDT system is restricted to areas within mobile phone coverage range
Scaling-up		
The current discussions aimed at developing a possible memorandum of understanding between the ACT Bushfire Service and the NSW Rural Fire Service should proceed as a matter of urgency.	Automatic weather station established at Mt Ginini (July 2004)	Actions conform.
The ACT should initiate discussions with New South Wales authorities in relation to ways in which the current relationships could be developed at a regional level, with the aim of strengthening the linkages between kindred agencies and identifying how the resources available in the ACT and the surrounding regions could be more easily mobilised in serious emergency situations-to the advantage of both jurisdictions. D46	Agreed MOU between ESA and NSW RFS signed in February 2009.	Actions conform.
The level of resources for the training and operational exercising of volunteer	Agreed MOU between ACT ESA and NSW DEC – “Cross Border Agreement on Fire	Actions conform.

McLeod/Doogan recommendations	Smith Report (2009) recommendations	ACT Bushfire Council (2012) statements
bushfire and emergency service personnel should be increased, to improve current skill and experience levels.	Preparedness, Response and Suppression” – signed in February 2009	
Environment ACT and ACT Forests should employ additional summer personnel as fire fighters and fire prevention workers to improve the ACT’s firefighting capability, particularly in terms of rapid deployment to fire in remote areas.	See response to Rec. 26 for training. In discussions with ACT RFS staff and volunteers a common theme was the lack of opportunities for volunteers to gain experience in operational exercising and apply their training.	Actions conform Challenges are however ongoing in maintaining competencies due to restricted access to “real life” training opportunity and exercise.
These staff should provide land management agencies with a capability to be first responders to fires on land they manage.	Agreed	Actions conform.
The ACT Bushfire Service should review the current Incident Control System arrangements, through an inter-agency workshop involving ESB, the ACT Fire Brigade, the Department of Urban Services and ACT Policing, to better clarify the application of the system. In particular, incident controllers should not be expected to operate when separated from their supporting elements; they should function as part of a cohesive, integrated management team.	SAR to involve all relevant agencies in operational exercises; eg ACT Police and ACT FB.	Actions conform in principle, although it is not apparent that an operational exercise involving all relevant agencies has occurred in the past 3 years.
ESB should establish joint ICS teams, made up of ACT Bushfire Service, ACT Fire Brigade and Department of Urban Services personnel, to jointly manage emergency	Actions conform.	Actions conform

McLeod/Doogan recommendations	Smith Report (2009) recommendations	ACT Bushfire Council (2012) statements
incidents within the ACT, regardless of location or the services' areas of responsibility.		
That appointments of personnel to functional positions within the incident management team be based solely on competence and experience and be made by the Chief Officer of the ACT Rural Fire Service or, in the absence of that officer, the Deputy Chief Officer of the ACT Rural Fire Service.	SAR to embed within Pre-season Checklist processes to ensure that up to date register of personnel with required competencies and experience is maintained to guide appointments to IMTs. Responsibility: ESA/RFS	Actions conform, particularly with the introduction of the Concept of Operations for Bush and Grass Fires in the ACT.
In conjunction with the land management agencies, ESB should undertake a review of training and development needs for personnel involved in firefighting activities and develop a detailed future plan, identifying any additional funds required to support such a program. The plan should be submitted to government for consideration as soon as possible. It should take account of the comments and recommendations in this report that bear on training and development, including the need for secondments interstate with other fire authorities.	SAR to align participation in training programs and competency maintenance with comprehensive training needs analysis for whole of responsibilities of ACT RFS.	Actions do not conform. There is no evidence that RFS has an up to date, systematic approach to implementing a competency based training needs analysis and the associated delivery of competency training for all positions in Incident Management Teams.
That senior officers of the Emergency Services Agency give greater recognition to the skills, knowledge and experience of people from other agencies – particularly the land management agencies – as well as rural residents and private individuals and use these people in roles	SAR to establish and maintain comprehensive register of all persons with relevant competencies and experience available for incident management in ACT and the register form part of Pre-season Checklist.	Actions partially conform. While the published list of officers designated to fill Incident Management Team roles for Level 2 and Level 3 incidents includes both volunteers and staff from TAMS, there is no evidence that the RFS has established a comprehensive register of all persons with relevant competencies and experience.

McLeod/Doogan recommendations	Smith Report (2009) recommendations	ACT Bushfire Council (2012) statements
commensurate with their skills and experience.		
That courses and programs be conducted to increase the level of Incident Control System training and augment the expertise of people who are likely to perform functions in an incident management team.	MAR to link ICS training and related competencies with training needs analysis linked to resourcing requirements for different level incidents.	Actions do not conform. There is no evidence that RFS has a systematic approach to delivering competency based training for all positions in Incident Management Teams. The expertise for managing Level 3 incidents is a risk.
That the Emergency Services Agency review the level of understanding among firefighting personnel of the latest information available nationally and internationally about wildfire behaviour and suppression and provide additional training if warranted.	SAR to implement more user friendly access by fire fighters to relevant and practical information.	Actions partially conform. A lot more information is available about wildfire behaviour, although it is likely that this is not well understood by all RFS firefighters.
That the Emergency Services Agency introduce a program with land management agencies in the ACT to ensure that maps of all public and private land in the ACT are subjected to regular review and amendment as required. Maps of a scale sufficient to facilitate fire management operations should be available in printed form and maintained on an electronic database capable of modification to add relevant features during firefighting operation.	SAR to finalise protocols between ESA and TAMS for provision of integrated and specified mapping products for use in fire management.	Actions conform. The ESA has a permanent GIS section of 4 staff supported by the MAPS volunteer unit. This unit is made up of GIS professionals from government and private sector in the ACT.
That priority be given to ensuring that the ACT has an adequate resource of remote area firefighting teams consisting of personnel with high levels of fitness and training in remote fire suppression.	Actions conform.	Actions conform. The ACT now has adequate numbers of volunteer and government staff who are trained and designated for Remote Area Fire Teams.

McLeod/Doogan recommendations	Smith Report (2009) recommendations	ACT Bushfire Council (2012) statements
<p>That all firefighting agencies adopt a policy and practice that all fires in remote areas of the ACT be responded to as quickly as possible, with vigorous and sustained efforts made to suppress the fires and not leave them unattended – especially at night – unless there are compelling reasons relating to fire fighter safety or lack of resources.</p>	<p>Actions conform.</p>	<p>Actions conform.</p>
<p>That a review be conducted of the adequacy of training and the numbers of fire fighters experienced in performing effective, safe large-scale back-burning operations.</p>	<p>MAR to conduct review as recommended.</p>	<p>Actions conform in principle, with the RFS advising that there are over 20 personnel experienced in planning and conducting large scale back burning operations. As these operations have not been conducted in the past 10 years it is not certain that this skill does exist at the stated level.</p>
<p>That it be a matter of policy and practice that the relevant land management agency is responsible for the initial response to any fire or fires on the land under its care or management – within the overall operational response of the ACT Rural Fire Service.</p>	<p>SAR to finalise Commissioner’s guidelines between ESA and TAMS detailing processes for involvement of TAMS staff in initial response on land managed by TAMS.</p>	<p>Actions partially conform. It is not clear a Commissioner's guideline on this issue has been prepared. While the stated intent is to respond TAMS units to fires on TAMS managed land, it is possible for COMCEN to despatch other units before the TAMS units are despatched.</p>
<p>That public land management agencies ensure that their senior personnel have appropriate experience in fire management and are provided with adequate resources and suitably experienced and trained staff to effectively implement fire management programs.</p>	<p>SAR to maintain an up to date register of TAMS staff with relevant competencies and experience to perform fire management roles.</p>	<p>Actions partially conform. TAMS has one senior officer with significant fire management experience, however there are no senior executives in TAMS who have significant fire management experience.</p>
<p>That the Emergency Services Agency, with the support of the ACT Government, develop a single, new memorandum of</p>	<p>ACT Government’s policy is for ESA to maintain separate MOUs with NSW RFS and NSW DEC. Current</p>	<p>Actions partially conform. There are two MOUs with NSW regarding aspects of fire management. An updated MOU between ESA and</p>

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<p>understanding with the NSW Department of Environment and Conservation and the NSW Rural Fire Service, providing for liaison and joint operations as soon as it becomes apparent to whichever jurisdiction is managing a fire that the fire will probably affect the other jurisdiction. Joint operations should not be limited to when an incident occurs on both sides of the border, as is the current arrangement.</p>	<p>arrangements already provide for joint operations when bushfires occurs in either jurisdiction.</p>	<p>NSWRFS was prepared in 2012 but it is unclear if it has been signed yet. This draft MOU was tested by an exercise held at Cooma Fire Control Centre in September 2012, although no TAMS officers participated in this exercise.</p>
<p>That the ACT and NSW authorities conduct a comprehensive risk analysis based on the most up to date knowledge relating to fire behaviour and spread in order to establish the degree of risk to each others' jurisdiction from fires igniting in the other jurisdiction and to ensure that both jurisdictions remain fully informed and participate in risk assessments, the development of suppression strategies, and the development and dissemination of community information messages or warnings.</p>	<p>MAR to formalise and implement planning structure for jointly undertaking on-going and comprehensive risk assessment impacts of potential fires on each other's jurisdiction.</p>	<p>Actions partially conform. While the MOU covers incident management, it is not apparent that specific arrangements have been established and tested implement planning structure for jointly undertaking on-going and comprehensive risk assessment impacts of potential fires on each other's jurisdiction.</p>
<p>That protocols and arrangements between the ACT and NSW require that each jurisdiction be fully involved in examining and planning for the threat posed by any fire likely to affect one or other jurisdiction and in coordinating the response to that fire.</p>	<p>MAR to establish and operationally implement protocol between ACT and NSW for assessing fire threats and co-ordinating response.</p>	<p>Actions partially conform. While the MOU covers incident management, the fact that there have not been any wildfires that pose a threat to the other jurisdiction has not enabled this to be tested in practice.</p>

