



LEGISLATIVE ASSEMBLY
FOR THE AUSTRALIAN CAPITAL TERRITORY

SELECT COMMITTEE ON ESTIMATES 2013-2014

JEREMY HANSON CSC MLA (CHAIR), CHRIS BOURKE MLA (DEPUTY CHAIR), MICK GENTLEMAN MLA, BRENDAN SMYTH MLA

**ANSWER TO QUESTION TAKEN ON NOTICE
DURING PUBLIC HEARINGS**



Asked by Mr Jeremy Hanson MLA on 19 June 2013: The Attorney- General took on notice the following question(s):

Ref: Hansard Transcript 19 June 2013 page 396

In relation to; Percentage of machines operating

Mr Hanson: That is good. A piece of clarity on the question that Mr Smyth asked you; the assumptions in terms of the forecast was based on 100 per cent of machines operating. There was no sort of amount that was deducted based on an understanding that you are not getting 100 per cent of revenues. It was assumed that you would get 100 per cent of revenue, is that right?

Mr Quiggin: I would have to go back and see if I can find some of the detail that informed the consideration in relation to the actual development of the agreement itself, but I am not aware of a percentage breakdown being taken into account with that agreement. But I would have to take that on notice, if you need more information in relation to that.

Simon Corbell MLA: The answer to the Member's question is as follows:-

The agreement was set out using the formula as outlined in the Auditor General's Report. which does not include calculations relating to parking machine operability. The formula does not include a factor for operability, but is based on the daily rate for each bay, multiplied by the number of bays in the carpark, and by the number of business days.

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Date:

By the Attorney-General, Mr Simon Corbell MLA



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**ANSWER TO QUESTION TAKEN ON NOTICE
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Asked by Mr Brendan Smyth MLA on 19 June 2013: The Attorney-General took on notice the following question(s):

[Ref: Hansard Transcript 19 June 2013 page 396]

In relation to agreements with private landowners:

Mr Smyth: Just to finish, how many such agreements have we got with other private landowners and can you provide us with a list of what those contracts are, the amount that they are worth, and also then the discrepancy between what has been forecast and then what has been collected in those cases for, say, the preceding four or five years.

Simon Corbell MLA: The answer to the Member's question is as follows:—

Parking Operations currently provides enforcement to 150 private carparks, however none of these incorporate any revenue sharing arrangements.

Parking Operations has entered into two revenue sharing arrangements following sale of land.

a. Westfield Belconnen for Block 29 Section 52 Belconnen. This agreement covered the period July 2009 to April 2010. Under the agreement, the Territory was entitled to retain 50% of the gross revenue collected each month. The calculation was based on the actual revenue collected from 8 parking machines. In addition, the Territory was entitled to retain all parking fines.

b. Woden Tradesmen's Club Block 15 of Section 3 Woden. Refer to responses for QTON no.E13-76.

There are no current arrangements which incorporate a parking fees revenue sharing arrangement.

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8.7.13

By the Attorney-General, Mr Simon Corbell MLA



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Asked by Dr Chris Bourke on 19 June 2013: the Attorney- General took on notice the following question(s):

[Ref: Hansard Transcript 19 June 2013 page 400]

In relation to: Costs of administering Legal Aid scheme

Dr Bourke: What is the breakdown of costs between payments to private legal practitioners, and the costs of administering the Legal Aid service scheme?

Simon Corbell MLA: The answer to the Member's question is as follows:-

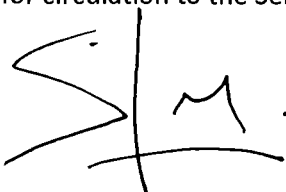
The total Ordinary Expenses of the Legal Aid Commission (ACT) budgeted in 2013-14 are \$12.507m which comprises Output 1.1 which is expenditure on legal aid services provided by private legal practitioners and Output 1.2 which is expenditure on legal aid services provided by Commission staff.

The budgeted amount of \$5.378m for Output 1.1 on page 527 of Budget Paper 4 is the total cost attributed to administering the provision of legal aid services through private legal practitioners and includes professional fees and disbursements which the Legal Aid Commission advises amount to \$2.952m.

The budgeted amount of \$7.129 for Output 1.2 is the total cost attributed to administering the provision of legal aid services through Commission staff and includes disbursements which the Legal Aid Commission advises amount to \$0.934m.

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**ANSWER TO QUESTION TAKEN ON NOTICE
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Asked by Brendan Smyth MLA on Wednesday 19 June 2013: The Minister for Police and Emergency Services took on notice the following question(s):

Ref: Hansard Transcript 19 June 2013, PAGE 424

In relation to: Receipt of PODs

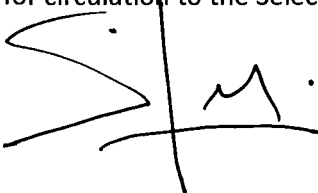
Mr Smyth: So just supplementaries to that, when were the PODs received? Was that 2007?

Simon Corbell MLA: The answer to the Member's question is as follows:-

The ACT received the Commonwealth funded PODs in 2009.

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**ANSWER TO QUESTION TAKEN ON NOTICE
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Asked by Brendan Smyth MLA on Wednesday 19 June 2013: The Minister for Police and Emergency Services took on notice the following question(s):

Ref: Hansard Transcript 19 June 2013, PAGE 425

In relation to: Deployment of PODs

Mr Smyth: Dr Bourke asked this: How often have they (PODs) been deployed?

Simon Corbell MLA: The answer to the Member's question is as follows:—

The PODs that were received in 2009 were not deployed prior to the Mitchell fire incident. The original PODs were Urban Search and Rescue (USAR) only and the ACT had not had any USAR incidents since 2009. The General Purpose Pod was used to transport supplies during the Mitchell fire in September 2011. The Rehabilitation/Welfare POD was deployed in support of ACTF&R and ACTRFS firefighters who were deployed to Carwoola, NSW in May 2013. In addition, the Rehabilitation/Welfare POD, the Breathing Apparatus/Accountability POD, the General Purpose POD, the Flat Bed POD, and the Field Service/Command & Control POD have all been used on a number of occasions at training and community events.

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Asked by Brendan Smyth MLA on Wednesday 19 June 2013: The Minister for Police and Emergency Services took on notice the following question(s):

Ref: Hansard Transcript 19 June 2013, PAGE 426-427

In relation to: ESA vehicle replacement program

Mr Smyth: I refer you to the ESA's vehicle replacement program which is dealt with in budget paper 4, page 225. What are we getting for the \$1.224 million? Can you take that on notice and provide the detail?

Simon Corbell MLA: The answer to the Member's question is as follows:-

\$1.224m is a Section 16b rollover of the ESA's ongoing vehicle replacement program from 2011-12 to 2012-13.

The rollover largely relates to timing differences between the delivery of vehicles and the drawdown of capital funding.

In 2011-12 financial year, the following vehicles were delivered under the program;

- 1 ACTSES Storm response vehicle
- 1 ACTF&R Breathing Apparatus Support Vehicle
- 3 ACTAS Intensive Care Ambulances
- 1 ACTAS Patient Transfer Support Vehicle
- 1 ACTRFS Heavy Tanker

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**ANSWER TO QUESTION TAKEN ON NOTICE
DURING PUBLIC HEARINGS**



Asked by Brendan Smyth MLA on Wednesday 19 June 2013: The Minister for Police and Emergency Services took on notice the following question(s):

Ref: Hansard Transcript 19 June 2013, PAGE 427-428

In relation to: Total number of ESA vehicles

Mr Smyth: How many vehicles does ESA have in its fleet? Could we have a spread on the total number of vehicles, the number of specialist firefighting vehicles and the number of private-plated vehicles? All the vehicles in the control of ESA.

Simon Corbell MLA: The answer to the Member's question is as follows:—

The ESA has 197 vehicles. 57 of these are leased of which 11 have private plates. Of the remaining 140 vehicles there are 80 specialist firefighting vehicles of which three (3) are awaiting disposal.

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Asked by Jeremy Hanson MLA on Wednesday 19 June 2013: Ms Moira Crowhurst, Acting Deputy Director-General, took on notice the following question(s):

Ref: Hansard Transcript 19 June 2013, PAGE 430

In relation to: Efficiency dividends

Mr Hanson: Going back to the efficiencies that you have been finding over previous years, that ends this financial year, does it?

Ms Leigh: No, there are efficiencies identified in last year's budget that step up in this year.

Mr Hanson: That step up – Is that one per cent, two per cent?

Ms Crowhurst: I do not think I have it as an exact percentage. We would need to take that on notice.

Simon Corbell MLA: The answer to the Member's question is as follows:–

The step up in efficiency dividends announced in prior year budgets is approximately 1% in 2013-14, with a further 0.5% per annum in 2014-15 and 2015-16.

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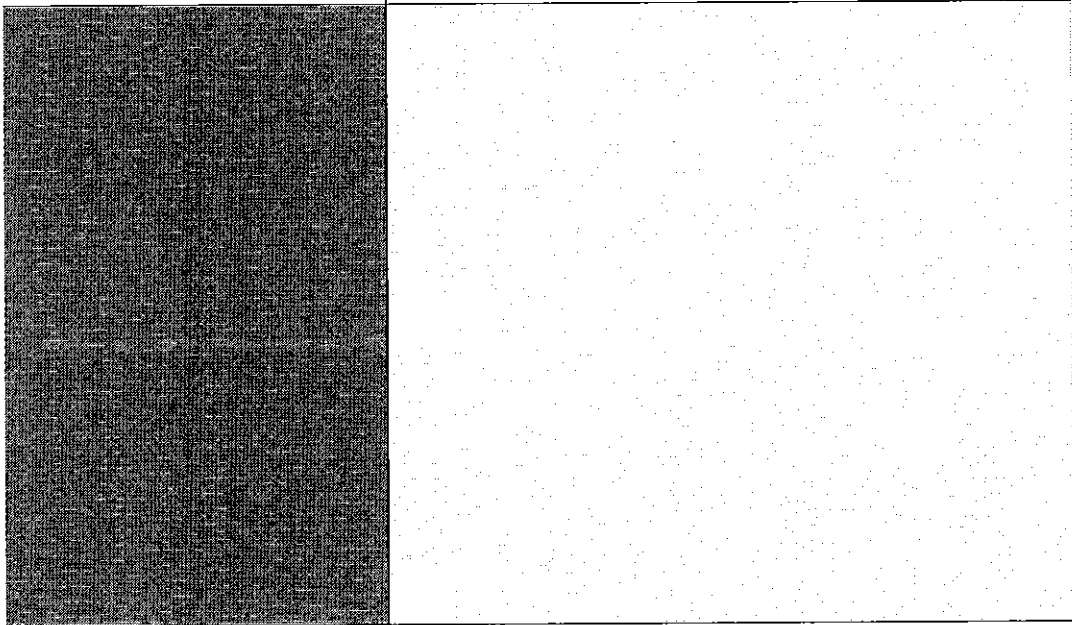
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Date:

1.7.13

By the Minister for Police and Emergency Services, Simon Corbell MLA

STRATEGIC BUSHFIRE MANAGEMENT PLAN FOR THE ACT



*A Plan for the Government and community of the ACT to
work together to more effectively suppress bushfires and
reduce their consequences*

Version Two
October 2009

Prepared in accordance with the *Emergencies Act 2004*.

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Foreword

As the recent fires in Victoria have reminded us, bushfires remain an ever-present threat to life, property and the environment in Australia. In 2003, this reality was made clear to the community of the ACT, with the catastrophic consequences of bushfires impacting on the people, property and environment of the ACT.

As a community and as a Government, we are still living with the consequences of this time in the Territory's history, and are continuing to improve our resilience to bushfires.

The ACT Emergency Services Agency has responsibility for the suppression of bushfires, and for ensuring programs and policies are in place that will reduce the consequences of bushfires across the whole of the ACT. The original Strategic Bushfire Management Plan, produced in 2005, was the first document of its kind to provide the framework for integrated bushfire management across the whole of the ACT. This Plan replaces and builds upon the 2005 Strategic Bushfire Management Plan.

Version Two of the Strategic Bushfire Management Plan differs from the previous Plan in a number of ways. In preparing this Plan, the principal objective has been to provide a Plan that gives clear direction for the community and the Government to reduce bushfire risk. In keeping with this objective, the Emergency Services Agency has prepared two Implementation Plans:

- an Implementation Plan for the community that I ask and strongly encourage every member of the community to consider; this Implementation Plan will allow members of the community to consider their vulnerability to bushfires, and guide them in the necessary steps they should take to reduce their bushfire risk; and
- an Implementation Plan for Government that clearly spells out the actions Government will take to reduce the risk of bushfires, through its people and its agencies.

Implicit in these Implementation Plans is the requirement for a shared responsibility for the management of bushfire risk. Individuals must take personal responsibility for reducing the threat of bushfires to themselves, their families and properties. The Government must provide the policies and programs, professional expertise and resources to implement programs and support the community. Together, an aware and educated community and a government that is committed to mitigating the risk of bushfires can form a partnership to reduce the impacts of future bushfires in the ACT. The Plan acknowledges and incorporates a number of the interim recommendations of the 2009 Victorian Bushfires Royal Commission with particular reference to Chapter IV – Warnings, reflecting that certain bushfire situations are considered uncontrollable with the revised Fire Danger Rating recognising that buildings, despite being constructed to AS 3959 and occupiers being well prepared, are not defendable without significant threat to life or safety.

Both the ACT Emergency Services Agency and the Department of Territory and Municipal

Services represent the principal government agencies for the implementation of fire management programs in the Territory. Both Agencies have collaborated closely in preparing this Plan, providing significant resources and expertise to its development.

The ACT community, various organisations, partner agencies and individuals have also been critical in this Plan's development, contributing their views and ideas as to how fire should be managed in the ACT. After months of consultation we are ready to take the next steps in managing for bushfires in the ACT.

This revised Plan implements the Government response to the 2003 Coronial Inquiry into the Canberra bushfires. It includes consideration of the most recent fire behaviour science and the latest information on education and awareness, and it integrates fire management on all lands in the ACT. However, knowledge and understanding improve over time, and circumstances can change—the Plan and key supporting documents are designed to be flexible to accommodate these changes, and if required will be reviewed and updated.

The ACT Government supports this Plan, and commends it to the community and Government agencies.



Simon Corbell, MLA
Minister for Police and Emergency Services

Executive Summary

Bushfire has been, and remains, a powerful natural force in the Australian Capital Territory and the surrounding region. It is not a matter of 'if' bushfire will occur, it is a matter of 'when' and 'where'. It is important that the people of the ACT understand that living here means living with bushfire. Some of the most enjoyable features— the warm dry climate and natural landscapes— create some of the most severe bushfire conditions in the world. The city of Canberra and surrounding rural areas are closely linked with the foothills, grasslands and mountains of the ACT, many of which occur on the western boundary of the city. This significantly increases the likelihood of the prevailing bushfires from the north and west threatening life and property, and other values.

From time to time individual weather events, combined with drought and fire ignition, will lead to bushfires that may overwhelm suppression efforts and gain considerable size and ferocity. In these situations, it will not be possible for emergency services to provide protection to the whole community and it may not be possible for individuals to defend properties safely. While historical analysis shows that extreme bushfire conditions occur approximately once every seven years, some climate change modelling suggests this may increase to once every five years by 2020 and more frequently, to less than once every two years by 2050. In order to manage for bushfires now and into the future, including potentially catastrophic events, this Strategic Bushfire Management Plan sets out the strategies and the specific actions by which the ACT community and the ACT Government can better manage bushfires and reduce their consequences to life, property and the environment.

This Plan builds on the Strategic Bushfire Management Plan Version One, released in January 2005. Since that time, work has been undertaken, both in the ACT and nationally, through the Bushfire Cooperative Research Centre, to better understand and inform bushfire management. The ACT Coroner has handed down the findings of the Inquiry into the 2003 bushfires and the ACT Government has responded. Issues identified include the need for a mosaic of fuel management across the landscape of the ACT, improved community education and awareness, and better preparedness and response to bushfires when they occur. This Plan provides the basis for implementing the ACT Government's response to the Inquiry, as well as incorporating many of the recent advances in bushfire management.

The structure of this Plan adopts the nationally recognised elements of contemporary bushfire management: Research, Information and Analysis; Preparedness; Prevention; Response; and Recovery. The strategies and actions in the Plan are based on core principles which guide balanced, effective and efficient bushfire management.

The strength of this Plan arises from the necessary partnership and shared responsibility between the community and the ACT Government. The Emergency Services Agency has worked closely with Government land managers, urban and rural landholders and residents, emergency services and community groups in its development.

Through this Plan, the ACT Government empowers its agencies to implement the strategies and the actions detailed. Likewise, it asks each member of the community to consider the Plan and what it means to them, and to implement those strategies and actions necessary to reduce the risk of bushfire to their families and assets.

The ESA will monitor the strategies and actions in the Plan to ensure they are achieved and, where necessary, are adjusted to suit changing circumstances. This will ensure the Plan remains a dynamic document that can inform the next full review of the Plan.

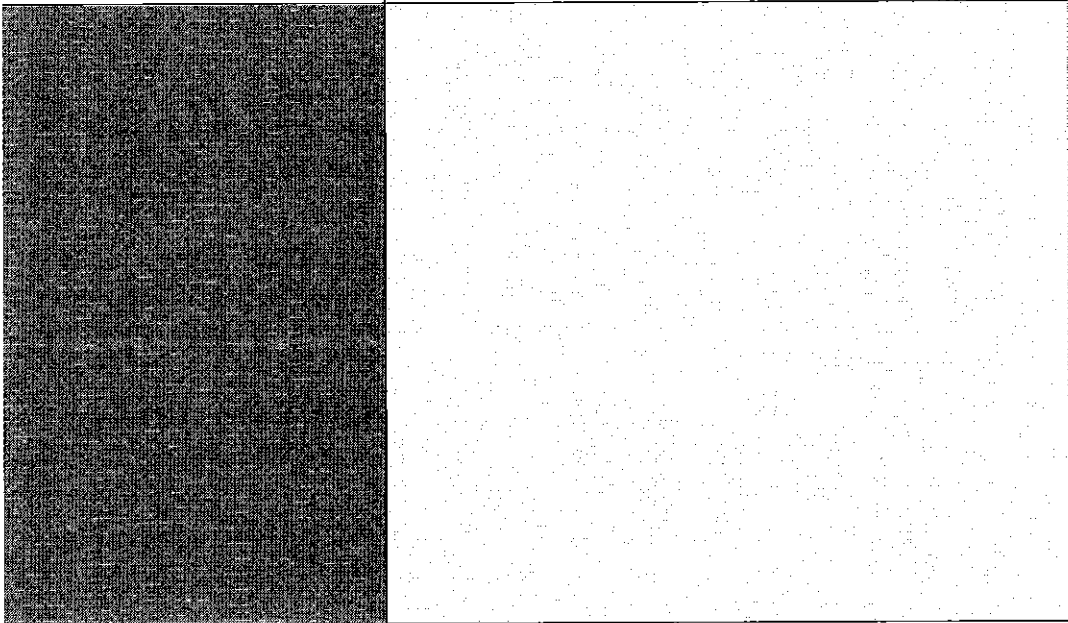
Contents

Foreword	iii
Executive Summary	v
The structure of the Strategic Bushfire Management Plan	viii
PART ONE - Context for the ACT Strategic Bushfire Management Plan	1
Chapter One: The Goal	2
The goal of bushfire management in the ACT	2
Core principles for bushfire management in the ACT	2
Chapter Two: The Scope	5
The scope of the Strategic Bushfire Management Plan	5
Chapter Three: The Basis	7
The legislative and policy basis for the Plan	7
The ACT bushfire environment	8
The history and cause of fire in the ACT	8
The current and future fire climate of the ACT	9
Bushfire fuels	9
Bushfire risk analysis	10
The bushfire management framework of this Plan	11
PART TWO - Bushfire management objectives and strategies	13
Goal and Strategies of the SBMP	14
Chapter Four: Implementation	17
Implementation	17
PART THREE - Bushfire management zoning	19
Chapter Five: Zoning	20
Bushfire management zoning	20
PART FOUR- Implementation Plan for the ACT community	25
PART FIVE - Implementation Plan for the ACT Government	33
PART SIX - Resource Requirements	51
Chapter Six: Resourcing	52
PART SEVEN - Schedules	53
Schedule A: Audit reporting	54
Schedule B: Classification and recommended standards for access	55
Schedule C: Fuel management standards for fire management zones	58
Explanatory Notes	60
Schedule D: Bushfire history records	62
Schedule E: Mapping components of the SBMP and supporting documents	63

The structure of the Strategic Bushfire Management Plan



PART ONE - Context for the ACT Strategic Bushfire Management Plan



Chapter One: The Goal

The goal of bushfire management in the ACT

The goal of this Plan is:

*Through Government and the community working together,
suppress bushfires and reduce their consequences on human life,
property and the environment.*

Objectives have been set for both the ACT Government and for the ACT community. Within the framework of Research, Prevention, Preparedness, Response and Recovery, strategies and actions are identified to address the specific elements of bushfire risk.

Core principles for bushfire management in the ACT

The bushfire management objectives, strategies and actions in this Plan are based on the following core principles which are intended to guide balanced, effective and efficient bushfire management.

1. Rapid detection and aggressive initial attack are fundamental to prevent fires from growing in size and threatening assets. Bushfires will be controlled in the shortest possible time, in a fast, determined, safe and thorough manner, giving due regard to management objectives and assets at risk.
2. Consistency of purpose and unity of control under the nationally adopted Australasian Inter-service Incident Management System (AIIMS) will be applied to all bushfire responses, irrespective of organisational structures.
3. Strong leadership and a commitment by the ACT Government and the community are required to maintain the momentum and priority for bushfire management planning and operations for the variable periods between severe events.
4. Individuals and households are expected to be informed and prepared in order to survive a catastrophic bushfire event. People must be provided with information on how bushfires may affect them and plan for their occurrence and in the event of bushfire threatening themselves or their properties, be able to make informed and timely decisions on early relocation or staying to defend their assets.
5. The safest response to bushfires is for members of the community to leave potentially vulnerable properties well before a bushfire arrives.
6. Consistent with the revised Fire Danger Ratings system, certain bushfire situations are considered uncontrollable. It should be recognised that buildings, even where built to meet

Australian Standards for bushfire construction and with occupiers being well prepared, are unlikely to be defensible and to attempt to do so would present significant threat to life or safety.

7. In extreme bushfire situations it must be recognised that it will not be possible for emergency services to provide protection to the whole community.
8. Information, advice and warnings provided by fire services to the community need to be timely, clear and accurate to ensure appropriate responses by individuals when bushfires occur.
9. Firefighter and public safety will take highest priority at all times when bushfires occur. Further priorities will be set for reducing bushfire impacts on property, rural production, businesses, community infrastructure and natural and cultural assets, based on asset value and the risk of bushfire to those assets.
10. Shared knowledge and information, including local community knowledge, will be actively sought, managed respectfully, and used to inform decision-making.
11. Bushfire management plans and programs will be based on a risk management framework which incorporates sound bushfire and environmental science, and lessons learned from previous bushfires.
12. Establishment and maintenance of the necessary levels and types of resources and systems, including experienced and motivated firefighting personnel, are necessary for effective fire management.
13. The ACT's firefighting capability is reliant on the maintenance of both volunteer and paid firefighting personnel.
14. The use of planned fires for fuel reduction is most effective in reducing the intensity and spread of fires under moderate fire conditions across large areas of the landscape, and will contribute significantly to the success of bushfire fighting under moderate conditions. However, as bushfire conditions become more extreme, fire intensity and rate of spread increase (even at low fuel loads) and the likely success of bushfire fighting efforts is reduced.
15. Bushfire management practices, including the use of planned fires for fuel reduction, will be carried out strategically and at a range of scales to reflect the differing risk in urban, rural and remote and mountainous areas.
16. Bushfire management recognises the dynamic nature of natural ecosystems, and requires clear objectives and an adaptive approach to environmental management. Fire managers will use the best available knowledge to identify appropriate fire management practices, including the desirable fire regimes necessary to maintain the ecological integrity of these systems.
17. The dynamic nature of bushfire risk and ecosystem management require bushfire management in the ACT to maintain the consistent application of the principles and policies identified in this Plan over the long term, and in subsequent plans.

18. Adverse biodiversity impacts may occur if the frequency, intensity and season of planned fire regimes do not reflect natural processes adequately. In some parts of the ACT, the planned fire regimes may be similar to ecologically-based fire regimes. However, in other areas the planned fire regimes may differ from the natural regimes, and may cause changes to the natural ecosystems.
19. Bushfire risk will be assessed in a regional context, considering the impact on the ACT from NSW, as well as the risk that bushfires from the ACT may present to NSW.
20. Recovery of social, community, rural and environmental assets is an integral component of bushfire management and will be considered before, during and after bushfires.

Chapter Two: The Scope

The scope of the Strategic Bushfire Management Plan

This Plan has the goal of identifying the necessary strategies and actions which the ACT Government and the community of the ACT will implement to enhance our ability to suppress bushfires and reduce their consequences.

This Plan provides for an integrated emergency response, utilising the skills and resources of all relevant ACT Government agencies and the community to respond to major bushfire events. This approach allows experienced firefighters to concentrate on bushfire suppression and uses support agencies to provide ancillary and coordination functions.

This Plan is prepared for the ACT Government and for the ACT community. This includes:

- the Fire Services (the ACT Rural Fire Service and the ACT Fire Brigade), support agencies and ACT Policing;
- Government agencies that support the community and emergency services;
- land managers, including ACT Government agencies and rural landholders; and
- urban and rural residents.

This Plan considers a range of assets which may be impacted by bushfires including built, environmental (ecological, hydrological and physical), agricultural and cultural assets.

This Plan assists the ACT Emergency Services Commissioner in exercising the functions of the position under the *Emergencies Act 2004*.

This Plan provides the actions and strategies by which the Chief Officer of the ACT Rural Fire Service and Chief Officer of the ACT Fire Brigade implement their responsibilities. The Plan recognises the distinct roles and responsibilities of these Services. The ACT Rural Fire Service and the ACT Fire Brigade are responsible for the suppression of bushfires, and through cooperative arrangements, key elements of bushfire management planning in the ACT.

This Plan supports the roles and functions of the ACT Bushfire Council to advise the Minister for Police and Emergency Services on any matters relating to bushfire management in the ACT. It provides the Council with a clear framework and measureable outcomes by which it can seek and analyse information and undertake audits on bushfire preparedness in the ACT.

The Plan recognises the critical contribution of the eight volunteer fire fighting brigades which provide the majority of the Territory's rural fighting personnel, as well as the support provided to the community and fire services through Community Fire Units.

The Plan recognises the key role of the Department of Territory and Municipal Services (TAMS) in fire management in the ACT. TAMS, through its business unit Parks, Conservation and Lands

are responsible for the management of 73% of the area of the ACT and provide suppression capability through Parks Rural Fire Brigade.

The Plan recognises the important role of the ACT local media in bushfire management. The media provides significant support to Emergency Services in assisting in the delivery of bushfire education and awareness programs, and has a critical role in disseminating information, advice and warnings when bushfires occur.

This Plan does not apply to National Land, which is managed by the Australian Government. However, the strategies and actions in the Plan have been designed to be compatible with and complimentary to management plans applying to National Land.

The ACT has formally and informally strengthened its relationship in the regional context with NSW agencies involved in fire management. Bushfires have the potential to come from NSW and impact on the ACT, from the forested landscape to the west and south, and the open agricultural lands to the north and east. Similarly, bushfires in the ACT have the potential to impact on NSW, in rural areas, rural subdivisions such as Royalla and Wamboin, and the urban and peri-urban areas of Queanbeyan, and beyond.

Chapter Three: The Basis

The legislative and policy basis for the Plan

This Plan has been prepared in accordance with the requirements of the *Emergencies Act 2004* (the Act). Consistent with section 80 of the Act the Strategic Bushfire Management Plan Version One has been reviewed by the Minister in consultation with the ACT Bushfire Council. The policies, strategies and actions in this Plan draw on and replace those developed in the Strategic Bushfire Management Plan Version One.

This Plan has been prepared to meet the requirements under the Act for the Emergency Services Agency (ESA) to develop a Strategic Bushfire Management Plan for the ACT. Section 74 of the Act defines the elements of bushfire management that must be addressed in the Plan. These requirements are met as part of this document and where identified, in the supporting information to the Plan.

The Plan provides the framework for implementing many of the agreed recommendations from the Coroners report into the 2003 Canberra bushfires. Also, the plan acknowledges and incorporates a number of the interim recommendations of the 2009 Victorian Bushfires Royal Commission, with particular reference to the *National Framework for Bushfire Scaled Advice and Warnings to the Community*, which details the framework for the provision warnings and information to the community and the revised national Fire Danger Rating system.

This Plan assists with elements of land use planning in the ACT, particularly those areas susceptible to bushfires including areas proposed for new subdivisions. Consistent with the provisions of the *Planning and Development Act 2007* and the Territory Plan, there is a hierarchical approach to planning in the ACT from the broad district level (that is a Structure Plan), to the suburb level (that is a concept plan and precinct code) and then to site specific development applications (subdivision and development).

This Plan and the supporting information assists in meeting the legislative requirements for planning and approval of fire management activities that may be subject to other legislation, including:

- *Environment Protection and Biodiversity Conservation Act (Commonwealth) 1999;*
- *Planning and Development Act 2007;*
- *Heritage Act 2004;*
- *Water Resources Act 2007;*
- *Environment Protection Act 1997; and*
- *Nature Conservation Act 1980.*

The ACT bushfire environment

The bushfire environment of the ACT describes the range of factors potentially influencing how fires will start and spread, and their interaction with the environment as they do so. These factors are summarised below and are described in detail in the supporting information to this Plan.

The history and cause of fire in the ACT

Bushfires have long been part of the ACT landscape. A combination of inherently flammable vegetation, dry summers, periodic drought and lightning ignitions, has resulted in fires of small and large size and of high and low intensity, with periodic conflagrations that have covered the landscape. An understanding of the history of fire in the ACT, and south eastern Australia more broadly, is critical in informing future management decisions.

Over tens of thousands of years, Indigenous Australians developed a sophisticated understanding and usage of fire for managing land and resources, and their understanding of fire and fire regimes evolved over countless generations.

Since European settlement, the ACT has recorded a history of severe and damaging bushfires, with large areas burnt in the bushfire seasons of 1919-20, 1925-26, 1938-39, 1951-52, 1978-79, 1982-83, 1984-85, 2000-01 and 2002-03. The impact of the 2002-03 bushfires is regarded as the most serious since the ACT was established.

These relatively rare but severe events cause more than 95% of the damage and loss to people, property and assets. Notwithstanding, relatively small bushfires close to the edge of Canberra's suburbs are always potentially damaging.

Bushfires may start due to either natural or human causes. The most common natural cause of bushfires in the ACT is lightning and, in general, the largest areas burnt are attributed to lightning ignitions. The majority of fire ignitions, however, are human-caused, either due to arson, carelessness or the accidental lighting of fires. Most of the human-caused bushfires occur in or near the built up area of Canberra.

Bushfire management activities must address both the higher numbers of fires in and around the suburbs of Canberra that may immediately threaten homes, and the smaller number of fires further away that are potentially much larger and may threaten rural homes and assets and potentially the suburbs of Canberra.

Further information on the history and cause of bushfire is provided in ***Supporting Information – Part One***.

The current and future fire climate of the ACT

The bushfire season in the ACT corresponds with the summer months with high temperatures and low rainfall and has the potential to extend from September to April, with significant variation between years. The seasonal potential for unplanned fires varies with rainfall and temperature, and their influences on biomass growth and fuel moisture content.

Bushfire risk management, planning and operations must take into account the likelihood of severe fire weather and the challenges it presents. An assessment of the Fire Danger Rating is determined by combining measures of soil moisture deficiency with the weather variables of temperature, relative humidity wind speed and recent rainfall to produce a Fire Danger Index (FDI). This index relates to the potential bushfire behavior, including its rate of spread, its intensity and difficulty of suppression.

Most uncontrollable bushfires occur when the FDI is over 50 (although they may also occur at lower FDI), with the Fire Danger Ratings of Severe (FDI 50-74), Extreme (FDI 75-99) and Catastrophic-Code Red (FDI 100+) used to describe these higher levels of fire danger. Many of the major house loss events in south eastern Australia have occurred at Fire Danger Indices over 70. Historical analysis shows such high indices occur approximately once every six to seven years in the ACT.

Climate change presents new challenges to bushfire risk management. It is predicted that days of >50 FDI will increase in southern Australia, with a possible increase of the frequency of >70 FDI events to once every five years by 2020 and to more than once every two years by 2050.

It is recognised discrete climatological events occur that have the potential to effect bushfire behaviour. The effects of thunderstorms and wind changes are well known examples of these discrete events that impact on fire behaviour and level of Fire Danger Rating. Research into a range of discrete climatological conditions is underway to assist fire suppression agencies to identify these conditions.

Further information on this research, the Fire Danger Rating system and on the current and future ACT climate is provided in ***Supporting Information – Part One***.

Bushfire fuels

Bushfire fuels are one important factor affecting the spread of bushfires that can be modified prior to fires occurring. Planned fire is effective in modifying the quantity, arrangement and seasonal flammability of fuels, and thus in reducing the intensity, flame height and rate of spread of unplanned fires under given climatic conditions. This ability to modify fuel is especially important in forested landscapes, where it can be undertaken at relatively low cost to create a mosaic of fuel loadings over large areas that can significantly reduce bushfire risk.

Fuels in the urban environment (including landscaping, garden beds and some structures) play a significant role in the development and spread of unplanned fires on the urban edge and into suburbs. An assessment of house loss after the 2003 Canberra fires concluded that it was likely that more than 50% of the house losses were due to fire attack from suburban fuels. The management of bushfire fuels in suburbs, on both unleased and leased land, in conjunction with appropriate preparedness by residents, will reduce the risk of house loss.

Further information on bushfire fuels, the assessment and modelling of bushfire fuel loads in the ACT and the techniques used to modify bushfire fuels is provided in the **Supporting Information – Part One**.

Bushfire risk analysis

The structure of this Plan follows the steps of the risk management process detailed in the Australian/New Zealand Standard AS/NZS 4360:2004, which provides the framework for establishing the **context, analysis, evaluation, treatment, monitoring and communication** of risk.

The analysis and evaluation components of this framework are undertaken in this Plan by considering:

1. the likelihood of a bushfire starting and the how it will spread through the landscape; and
2. consequence on assets that may be affected by the spread of the bushfire.

Supporting Information – Part One provides detailed modelling and analysis of the probability of bushfires starting and spreading in the ACT, based upon historical records of the fire climate and the modelling of bushfire fuels and behaviour characteristics.

The areas in which a bushfire may spread under a range of conditions are critical in identifying the assets which may be impacted. Assets that may be impacted by bushfires (planned or unplanned) have been grouped into eight broad categories:

- Human life;
- Property;
- Business and social Infrastructure;
- Critical infrastructure;
- Agricultural production;
- Biodiversity and threatened species;
- Cultural heritage; and
- Water catchments.

Supporting Information - Part One details the range of potential consequences that bushfires, both planned and unplanned may have on each of these assets groupings. For some of the asset groupings, such as biodiversity and threatened species, more detailed background information is also provided in the **Supporting Information – Part Two**.

The bushfire management framework of this Plan

As a means of addressing the components of the risk management framework for the treatment, monitoring and communication of bushfire risk, the following management framework is utilised: **Research, Information and Analysis, Prevention, Preparedness, Response and Recovery (RPPRR)**.

This framework allows ACT Government agencies and the community to approach bushfire planning in a comprehensive and structured manner. However, flexibility in this framework is necessary and emphasis on a particular category may vary between individuals, organisations and locations, and over time.

Research, information and analysis provide contemporary information, qualified research findings and monitoring and review to develop and implement actions under the other categories in the framework.

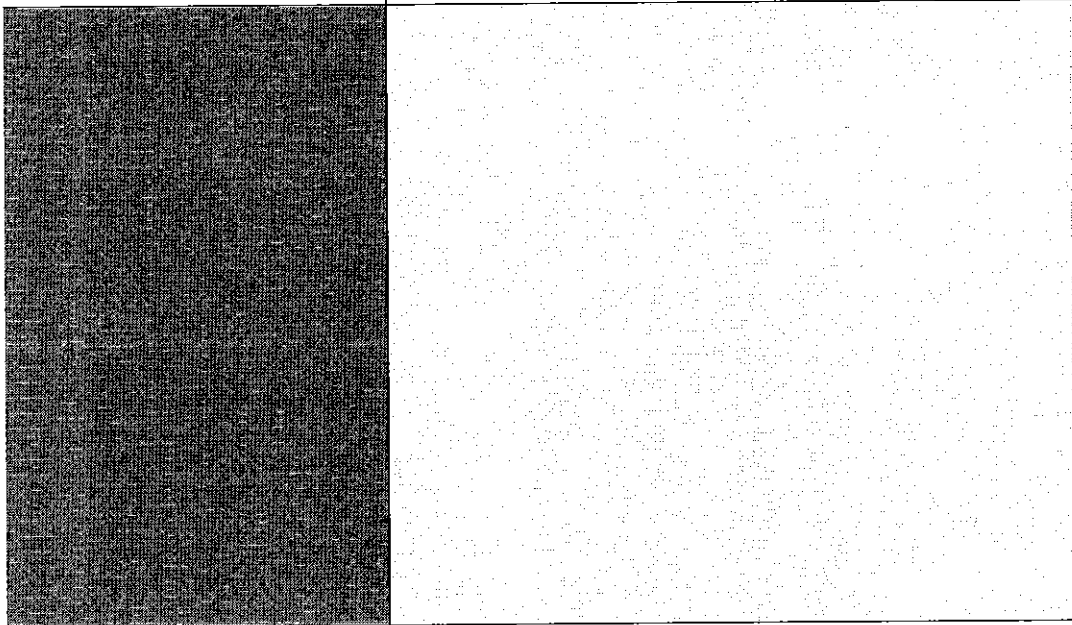
Prevention includes pre-emptive risk mitigation actions by the ACT Government and the community to reduce the likelihood of bushfires starting, spreading and causing damage. It includes the reduction of bushfire fuels, the provision of access for suppression and managing the sources of ignition of bushfires.

Preparedness. Preparedness ensures that when bushfires occur, ACT Government agencies, the community and individual land managers are ready to respond in ways that are effective and soundly based. These will include early detection, having appropriately trained and experienced firefighters, a prepared community and the necessary plans, physical and information resources in place to respond to bushfire and provide information, advice and warnings to the community.

Response. Effective response to bushfires when they start can mitigate bushfire risk, through limiting the spread and the consequences of bushfire. Response includes the firefighting component of the overall bushfire management process. Firefighting is generally the role of the Fire Services but, just as importantly response includes those critical actions that community members will take when bushfires threatens.

Recovery describes actions taken to limit the consequences following a bushfire. Recovery may be complex, as it deals with social, economic, physical and environmental rehabilitation. It is an integral part of the framework and should be consciously considered during all other phases of the framework.

PART TWO - Bushfire management objectives and strategies



Goal and Strategies of the SBMP

The Goal	
Through Government and the community working together, suppress bushfires and reduce their consequences on human life, property and the environment	
Objectives	
For the ACT Government to develop and implement an integrated, efficient and effective bushfire management program	For the community of the ACT to increase its knowledge of bushfires and to take personal actions to minimise the risk and consequences of bushfire events

Strategies	
Research, information and analysis	
ACT Government	ACT community
<ul style="list-style-type: none"> • The ACT Government and the community work together to share knowledge and information to prepare and maintain Integrated Regional Fire Management Plans • Undertake monitoring and review of the effects of the operations and activities resulting from this Plan and sub plans and report back to the community and adjust strategies as necessary • Analyse the response to and the effects of bushfires for future learning and adjust strategies where this new information and knowledge will result in improved outcomes • Actively work with other fire agencies to develop bushfire management strategies that are aligned and acknowledge the level of bushfire risk to each jurisdiction 	<ul style="list-style-type: none"> • The ACT Bushfire Council will provide oversight and review of bushfire management in the ACT • The ACT Government and the community work together to share knowledge and information to prepare and maintain Integrated Regional Fire Management Plans • The community considers its vulnerability to bushfires and take the necessary steps to plan for their occurrence

Prevention	
<p style="text-align: center;">ACT Government</p> <ul style="list-style-type: none"> • Undertake targeted programs to reduce the number of unplanned ignitions • Maintain a network of fire trails and helipads (bushfire management access network) to provide for rapid response to bushfires and to undertake effective bushfire fighting and hazard reduction operations • Establish priorities for prevention and preparedness activities which reduce the likelihood and consequences of catastrophic bushfire events • Maintain a mosaic of fuel loads at a landscape level, through Strategic Firefighting Advantage Zones that assist in suppressing bushfires and minimise environmental consequences • Provide for primary bushfire risk reduction adjacent to assets through Asset Protection Zones that assist in reducing the consequences of bushfires • Reduce bushfire risk in areas subject to ember attack, radiant heat and flame contact through effective urban planning, design and construction 	<p style="text-align: center;">ACT community</p> <ul style="list-style-type: none"> • Community members prepare their properties and their businesses to reduce the impact of bushfire
Preparedness	
<p style="text-align: center;">ACT Government</p> <ul style="list-style-type: none"> • Ensure sufficient skilled and motivated personnel are available to meet bushfire management requirements • Ensure the standard and quantity of equipment and resources available for bushfire suppression meet bushfire suppression objectives • Ensure critical information and detection methods are available and arrangements are in place for firefighters to rapidly and effectively respond to bushfires • Provide support to the community to enhance its awareness and capacity to Prepare, Act and Survive the threat of bushfire 	<p style="text-align: center;">ACT community</p> <ul style="list-style-type: none"> • Community members prepare themselves and their families to take action to avoid loss of life and reduce property damage, with the limited support of emergency services • Community members support the emergency services as an integrated part of the coordinated response efforts

Response	
<p style="text-align: center;">ACT Government</p> <ul style="list-style-type: none"> • Respond to bushfires safely, effectively and efficiently to control and extinguish the fires • Provide the necessary information, advice and warnings to the community to enable immediate response and appropriate actions by individuals when bushfires occur • Where multiple agencies are involved or significant events occur, ensure the response to bushfires is undertaken in a coordinated manner 	<p style="text-align: center;">ACT community</p> <ul style="list-style-type: none"> • Community members take responsibility to undertake the necessary actions to improve their ability to survive bushfire events
Recovery	
<p style="text-align: center;">ACT Government</p> <ul style="list-style-type: none"> • Restore healthy, diverse, and resilient ecological systems on a priority basis through long-term restoration • Coordinate and deliver programs and services to assist the recovery of affected communities and individuals, including firefighting personnel and support staff 	<p style="text-align: center;">ACT community</p> <ul style="list-style-type: none"> • Communities lead their own recovery in partnership with the ACT Government and other agencies • Communities support each other and contribute to the development of a more prepared community

Chapter Four: Implementation

Implementation

The implementation of this Plan will be based on specific actions to achieve the strategies identified above. The ACT Government makes a commitment to implement the Plan, and where appropriate Government agencies will incorporate these actions into their annual business programs.

Community members are encouraged to consider the Plan, and incorporate the actions identified into their personal planning for bushfires.

Implementation actions will:

- be linked clearly to the strategies of the Plan;
- specify clear and measurable outcomes; and
- clearly allocate responsibility for achieving outcomes. This may include identified statutory positions (such as the Chief Officers of the Fire services) or as appropriate organisations, groups or individuals. In some cases, these functions may be delegated by the identified party. Multiple parties are identified for some single action statements, generally reflecting actions that having multiple components.

The timing to implement the actions considers a range factors:

- actions identified that are already in place or undertaken;
- actions that may have commenced but require further development;
- new actions;
- actions requiring periodic review; and
- actions that will only be required in specific circumstances, for example when a significant bushfire occurs.

Where appropriate, the timing to commence or complete specific actions and undertake periodic review is identified in the action statement.

Relative priorities have been assigned to the specific actions in the Implementation Plans. The following criteria have been used to allocate the priorities.

- High: these are tasks which are essential to achieve the Plan's objectives; and
- Medium: these are tasks important to achieve the Plan's objectives but which can be undertaken over the life of this Plan, without significant adverse impacts on bushfire management outcomes.

Acronyms used in implementation plans principally relate to the names of ACT Government Agencies and Business Units responsible for implementing actions. They are:

ESA ACT Emergency Services Agency

ACT RFS ACT Rural Fire Service

ACT FB ACT Fire Brigade

JACS ACT Department of Justice and Community Safety

TAMS ACT Department of Territory and Municipal Services

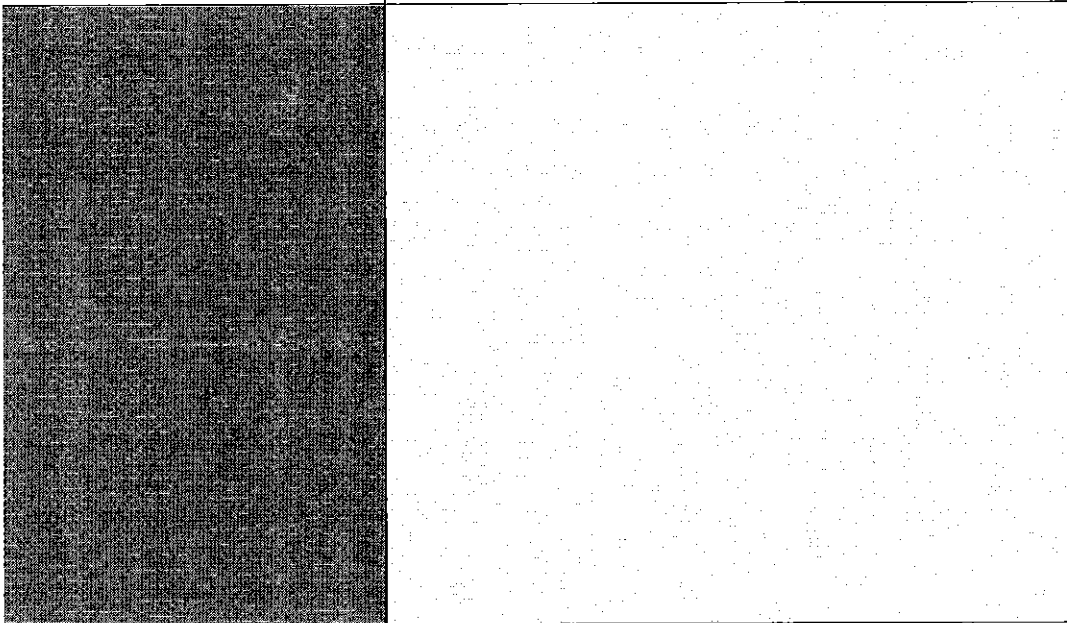
CMD ACT Chief Ministers Department

DHCS ACT Department of Disability, Housing and Community Services

LDA ACT Land Development Agency

ACTPLA ACT Planning and Land Authority

PART THREE - Bushfire management zoning



Chapter Five: Zoning

Bushfire management zoning

Bushfire management zones guide prevention and preparedness activities to achieve more effective management of bushfires, by both the ACT Government and broader community.

Bushfire management zoning in this Plan:

- provides an ACT-wide approach to bushfire risk mitigation, and is developed in a tenure neutral manner;
- strategically allocates areas of land to zones and where appropriate, with measurable treatment standards;
- are located and aligned to reflect the risk of bushfires starting, spreading and causing damage; and
- consider the principal purpose for land use, including ecological or production requirements, proximity to natural or built assets and appropriate strategies for bushfire control operations.

The use of fire management zones form the cornerstone of the prevention activities identified in this Plan and are important for assisting the community in assessing their vulnerability to bushfires. They inform the development of Regional Fire Management Plans, which are prepared to detail the timing, location and type of specific bushfire prevention actions to be undertaken. The Fire Management Zones are:

Ember Zones: are areas of leased land that contain rural and urban structures and assets that may be subject to impact by bushfires, principally through ember attack and potentially as a result of radiant heat and direct flame contact from bushfires. The zone has been established based on historical data of bushfire penetration into built-up areas, and provides a guide to show areas at highest risk from direct ember attack. It does not automatically mean that all properties falling inside this zone will be affected by all bushfires; likewise in some circumstance bushfires may penetrate further than the distances indicated¹.

Inner Asset Protection Zones: are strips of land adjacent to vulnerable assets, where fuel hazard is to be reduced to comparatively low levels. This will reduce the level of ember attack, direct flame contact and radiant heat impact on adjacent assets, and provide defensible space to allow firefighters and residents to reduce the impact of bushfires with increased safety under some conditions.

¹ The purpose of the Ember Zone is to: identify to urban and rural residents areas that may be subject to a higher level of bushfire risk to guide them in the necessary actions they need to undertake to *Prepare, Act and Survive* bushfire situations; guide emergency services in targeting and delivering proactive and explicit community education and awareness programs and; may be used to trigger the application of specific bushfire risk assessment to determine standards of building construction for new subdivisions and developments. The Zone does not impose retrospective requirements for meeting particular building standards on existing properties.

Outer Asset Protection Zones: are strips of land adjacent to some inner asset protection zones, where fuel hazard is to be reduced to comparatively low levels to further reduce bushfire intensity and the risk of ember attack to adjacent houses and assets.

Strategic Firefighting Advantage Zones: are corridors established to break up major fire runs in instances where initial attack fails and conditions permit, although they may assist in initial attack in some circumstances. These zones are strategically located to slow the spread of unplanned fires and reduce fire intensity and spotting.

Landscape Fire Management Zones: are areas on government managed lands where planned fire is applied for ecological and catchment requirements, recognising that in some communities, no planned fire will be applied.

Agricultural Fire Management Zones: are areas of rural leasehold and agisted lands where bushfire mitigation is undertaken less intensely, and in accordance with rural production objectives. The Zone recognises that the range of rural production activities practiced in the ACT will generally result in the reduction of bushfire risk.

Cooperative Management Areas: are identified where particular zones cross over multiple land management tenures or areas where this Plan does not apply but are significant in relation to fire management strategies in the ACT. Examples of this may include zones that straddle rural land and national park in the ACT, areas of NSW or areas on National Land managed land in the ACT. In these Cooperative Management Areas, the ESA, land managers or other fire authorities will work closely to develop strategies and actions that are integrated and consistent with this Plan and the relevant land use objectives.

The mapped fire management zones below (figures one and two) are provided for explanatory purposes. The zoning is shown for the next ten years, in two five-year groupings: 2009-2014 and 2014-2019.

The zoning system is designed to be dynamic over the long term, and the location of zones may vary. For example, this Plan identifies the need to achieve mosaic of fuel management across the landscape, while recognising the need to balance bushfire risk mitigation with environmental values. To achieve these multiple objectives Strategic Firefighting Advantage Zones will vary in some locations between the two five-year groupings identified, as well as in future Plans. A further example is the urban footprint of the ACT, which changes over time and requires zoning to be flexible to accommodate these changes from year to year.

These zones and the Regional Fire Management Plans that derive from them will be subject to annual review. Where amendments are required they will be approved by the Commissioner ESA. These changes may be made without prior public consultation.

Further information relating to Fire Management Zoning can be found in the **Supporting Information - Part Two**.

Figure One - ACT Zoning Map 2009-2014
This map is for explanatory purposes and will be reviewed annually.
High resolution maps are available on the ESA website

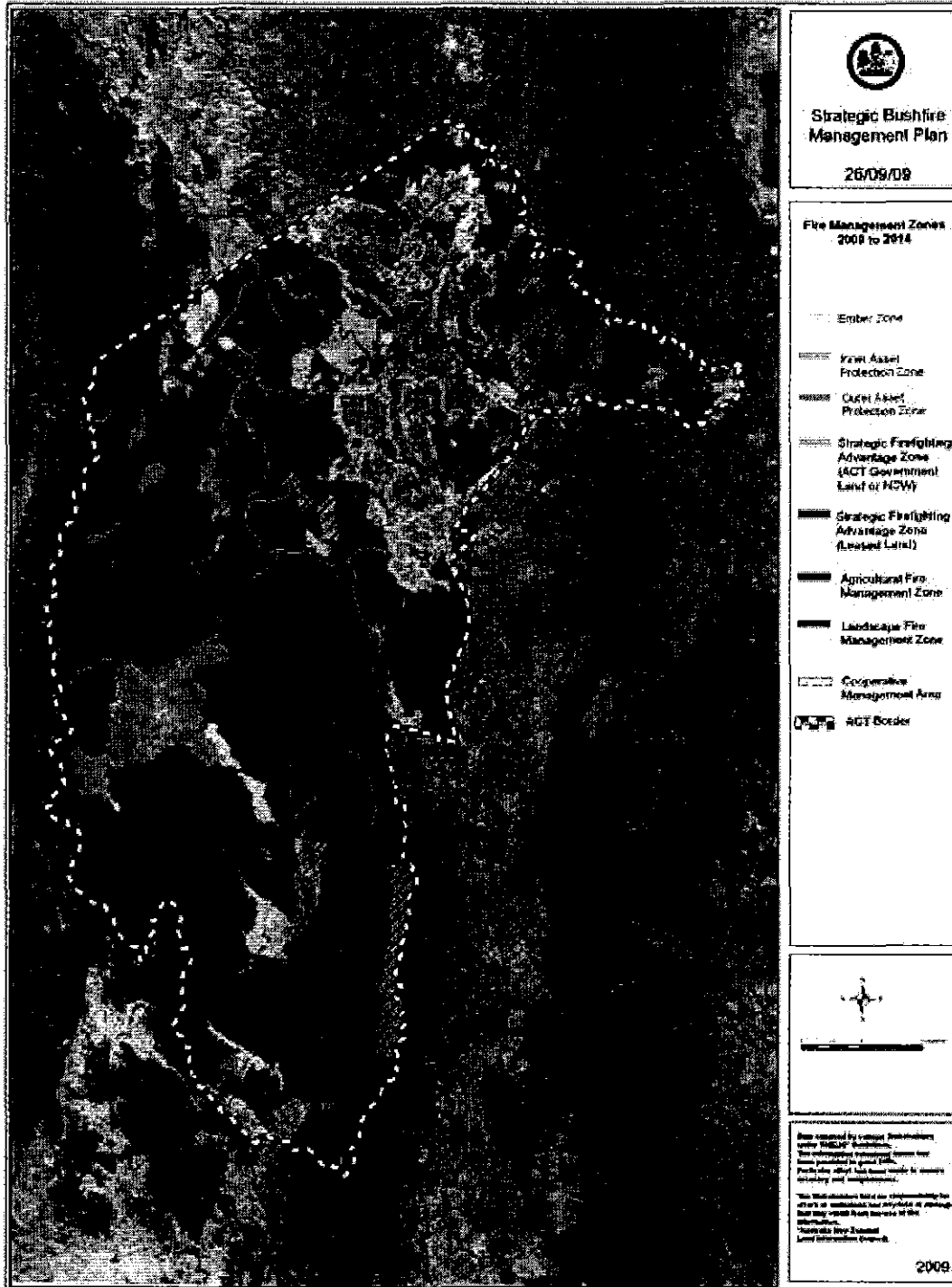
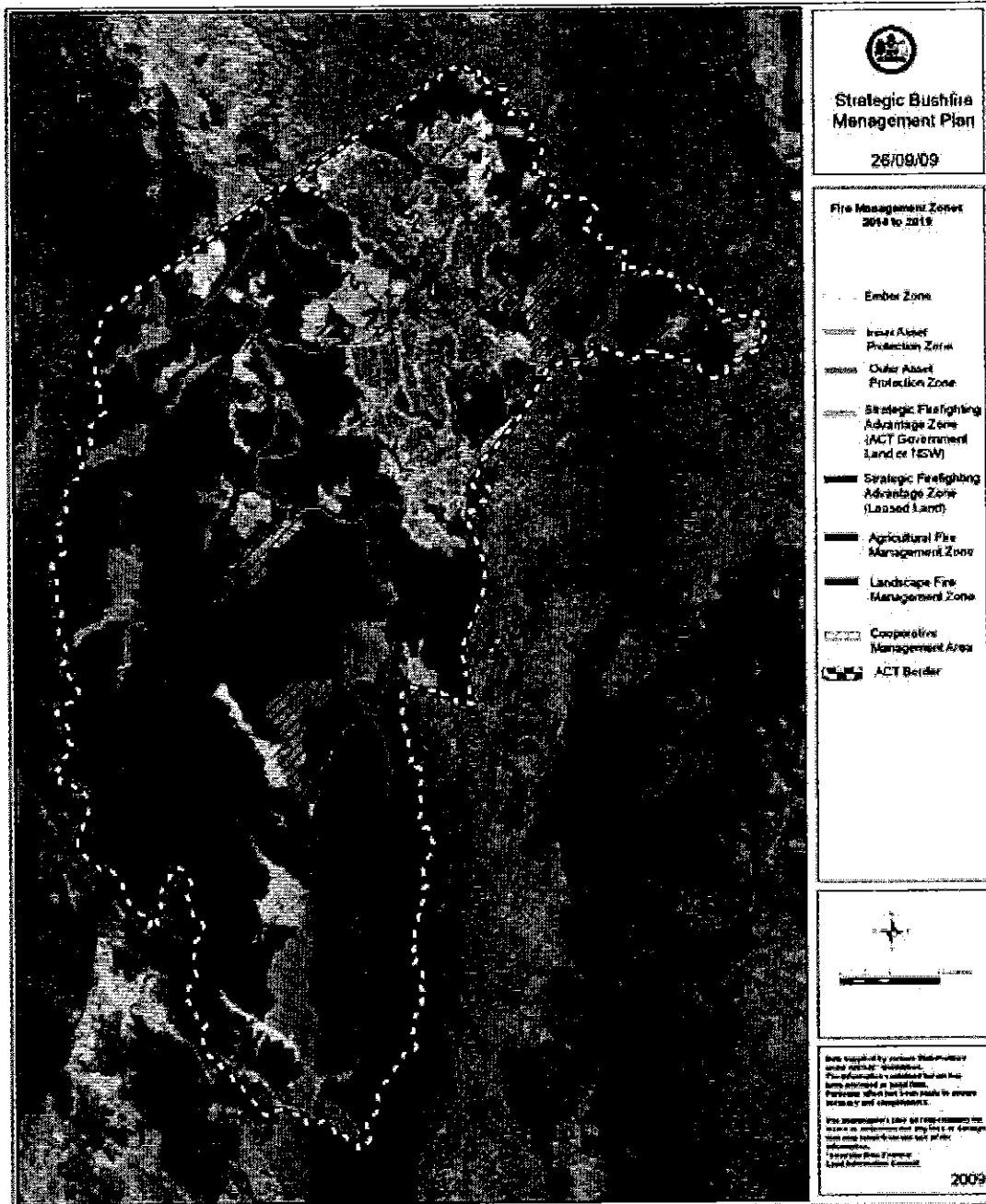
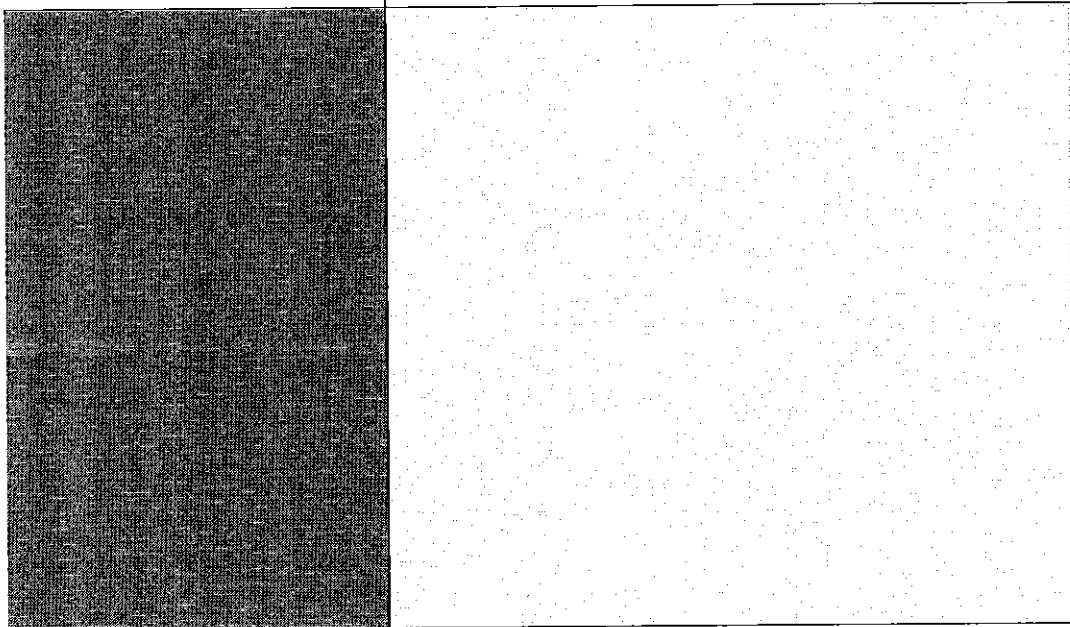


Figure Two - ACT Zoning Map 2014-2019

This map is for explanatory purposes and will be reviewed annually.
 High resolution maps are available on the ESA website



PART FOUR– Implementation Plan for the ACT community



ACT Community Implementation Plan

This Plan asks the community of the ACT to increase its knowledge of bushfires and to take personal actions to minimise the risk and consequences of bushfire events

Research, information and analysis

Research, information and analysis provide the necessary processes, information and understanding to implement actions under the other categories in this framework. Planning and management cannot be improved without analysis of past events and incorporation of improved technological and operational developments. Research provides valuable insights into critical factors and causal relationships.

Strategy: The ACT Bushfire Council will provide oversight and review of bushfire management in the ACT			
No.	Actions to achieve the strategy	Priority	Responsibility
1	The ACT Bushfire Council will monitor and review implementation of actions established under this Plan. Audit reports will be prepared annually to document compliance with actions identified in this Plan. Audit reports will include an outline of the audit procedure, any necessary discussion of findings, and conclusions about level of compliance with this Plan.	High	ACT Bushfire Council
2	The ACT Bushfire Council will provide advice to the Minister on matters relating to bushfire management in the ACT, including: <ul style="list-style-type: none"> • the level of preparedness; • prevention activities; • the response capability of fire services; and • the implementation of recommendations from the inquiries into the 2003 Canberra bushfires, and other major bushfire events. This advice will be prepared annually, and provided to the Minister prior to the commencement of the bushfire season for that year.	High	ACT Bushfire Council

Strategy: The ACT Government and the community work together to share knowledge and information to prepare and maintain integrated Regional Fire Management Plans			
	Actions to achieve the strategy	Priority	Responsibility
3	Community members consider and actively participate in the development of plans for fire management.	Medium	All community members
4	Rural landholders participate in cooperative arrangements with adjacent landholders, community groups and individuals to integrate fuel management activities and access across ACT land tenures, generally in areas identified as Cooperative Management Zones.	Medium	All fire management authorities and community members

Strategy: The community considers its vulnerability to bushfires and take the necessary steps to plan for their occurrence			
No.	Actions to achieve the strategy	Priority	Responsibility
5	The community evaluate its level of vulnerability to bushfire and understand their personal responsibility to plan for the event of a bushfire. Evaluation of vulnerability is assisted by considering: <ul style="list-style-type: none"> • individual's proximity to the identified Ember Zones², which show those built up areas in the ACT at higher level of risk from the impacts of bushfire; • whether you live in rural areas of the ACT; and • bushfire information and advice available through the fire services. 	High	All community members
6	Community members, particularly those in areas identified as Ember Zones, participate in an integrated bushfire education and awareness program in order to understand fire management and plan personal bushfire responses. This should include the preparation of a home emergency plan, which considers the necessary prevention, preparedness, response and recovery actions they will undertake to Prepare, Act and Survive a bushfire event. Detailed information on the preparation of home emergency plans is available on the ESA website or from the ESA. These plans should be reviewed annually, prior to the commencement of the bushfire season ³ .	High	All community members

2. The mapped location of Ember Zones in the ACT are available on the ESA website or from the ESA. The Ember Zone are those urban areas and rural villages specifically identified in the Fire Management Zoning Maps as subject to a higher level of bushfire risk. Although not identified on these maps, rural residences and assets may also be within an Ember Zone.
3. The bushfire season normally runs from 1 October through to 31 March the following year, although the beginning and end of the season may be changed if conditions require.

Prevention

Prevention encompasses pre-emptive risk mitigation action by the ACT Government and the community to reduce the likelihood of bushfires starting, spreading and/or causing damage to assets.

Strategy: Community members prepare their properties and their businesses to reduce the impacts of bushfire			
No.	Actions to achieve the strategy	Priority	Responsibility
7	<p>Community members, particularly those in areas identified as Ember Zones, consider what level of bushfire threat the property is capable of withstanding⁴ and undertake actions to prepare⁵ their properties to reduce the effects of bushfires which may include:</p> <ul style="list-style-type: none"> regular actions to reduce the risk presented by heavy loads of garden fuels and vegetation around their homes; actions to address building deficiencies that may increase their vulnerability to bushfire; and the necessary and appropriate resources and equipment for responding to bushfire events, including the provision of a "home emergency kit" for bushfires (and other emergencies). <p>Considering how well your assets are prepared for bushfire events must be a continuous and ongoing process for all members of the community and should form part of a home emergency plan. Even if the plan is to leave, the better prepared the home the greater the likelihood it will survive a bushfire. Detailed information is available on the ESA website to assist.</p> <p>Community members are encouraged to seek the advice for the ACT Fire Services, including Community Fire Units and Volunteer Brigades to assist in the development of the plans and undertaking activities.</p>	High	All community members
8	<p>In addition to providing an increased level of protection to their homes, rural landholders also take active and regular measures to prevent damage to critical infrastructure, production, and agricultural assets of their business enterprises. This should include participation and advice in protecting environmental and heritage values, which may occur on their property or on adjacent lands, including identified Cooperative Management Areas.</p> <p>Local volunteer brigades may assist rural landholders in the development of the plans.</p>	High	Rural landholders

- The vulnerability of houses to bushfires will be dependent on the scale of bushfire threat and the extent of preparations undertaken to reduce this threat. Notwithstanding, in some bushfire situations, even fully prepared and well designed homes are unlikely to be defensible.
- Prepare, Act, Survive is the nationally agreed framework for the provision of information and warnings to the community.

Preparedness

Preparedness ensures that when bushfires occur, ACT Government agencies, the community and individual land managers are ready to respond in ways that are effective and soundly based. These will include early detection, having appropriately trained and experienced firefighters, a prepared community and the necessary plans, physical and information resources in place to respond to bushfire and provide information, advice and warnings to the community.

Strategy: Community members prepare themselves and their families to take action to avoid loss of life and reduce property damage, with the limited support of emergency services			
No.	Actions to achieve the strategy	Priority	Responsibility
9	<p>Community members, particularly those in areas identified as Ember Zones determine how they will prepare themselves for bushfire incidents. Preparing for bushfires needs to consider:</p> <ul style="list-style-type: none"> • If the plan is to leave early in the event of bushfires, prepare for where to go, how to get there and what to take; • If the plan is to stay, understand the risk of injury and death presented by major bushfires and whether individuals are physically and emotionally prepared to withstand the extreme physical and psychological conditions presented by bushfire impact; • contingency plans including areas to shelter and how they can be accessed if a bushfire threatens; • the ability to act independently, without the support of emergency services; and • plans for the safety of vulnerable family or individuals, including children or the disabled. <p>Preparations for bushfire events must be a continuous and ongoing process for all members of the community and should form part of a home emergency plan.</p> <p>Community members are encouraged to seek the advice from the ACT Fire Services, including Community Fire Units and Volunteer Brigades to assist in the development of the plans and undertaking activities.</p> <p>Detailed information is available on the ESA website to assist.</p>	High	All community members

10	Community members, particularly those in areas identified as Ember Zones actively seek to understand: <ul style="list-style-type: none"> the Fire Danger Rating system that is applied, using a combination of words (the Fire Danger Rating) and numbers (the Fire Danger Index) that provides an assessment of the fire behaviour, the difficulty of controlling a fire and the possible impacts. the levels and types of messages used by Emergency Services and their purpose in alerting community members to danger so actions can be taken⁶. Detailed information is available on the ESA website describing the Fire Danger Rating and messages that will be provided by emergency services.		All community members
11	Community members, particularly those in areas identified as Ember Zones, assess the need and necessary coverage of insurance against the risk of bushfires. Requirements should be reviewed annually.	Medium	All community members
12	Rural landholders prepare and annually review Bushfire Action Plans ⁷ that considers the necessary skills and resources to respond to bushfires on their properties, with the objective of controlling and extinguishing unplanned fires.	High	Rural landholders

Strategy: Community members support the emergency services as an integrated part of the coordinated response efforts

No.	Actions to achieve the strategy	Priority	Responsibility
13	Individuals, particularly those in areas identified as Ember Zones consider their ability to contribute to their community through voluntary service by: <ul style="list-style-type: none"> becoming a member of a rural volunteer fire brigade; becoming a member of a local Community Fire Unit; or becoming a member of other services and organisations that support fire management. 	High	All community members
14	Individuals should be aware of their responsibility to report bushfires or suspicious activity, and assist emergency services when requested.	High	All community members

6 Consistent with the principles established in the National framework for scaled bushfire advice and warnings to the community, the type of messages are:

- Bushfire Advice messages provide general information to keep the community up to date with the local bushfire situation and developments;
- Watch and Act messages will identify that a bushfire is approaching, conditions are changing; community members need to start taking action now to protect themselves and their family; and
- Emergency Warning messages will identify that community members are in danger, will be impacted by fire and need to take action immediately. This message will usually be preceded by the Standard Emergency Warning Signal (SEWS).

Any subsequent revisions to this framework may be incorporated as appropriate.

7 Rural Landholders should engage with the Farm FireWise program to prepare these plans, which would meet requirements of their Land Management Agreements. Farm Fire Wise is an ongoing program established and implemented by the ACT Rural Fire Service to assist rural landholders to undertake the necessary planning activities to prevent and prepare for bushfires

Response

Effective response to bushfires when they start can mitigate bushfire risk, through limiting the spread and the consequences of bushfire. Response includes the firefighting component of the overall bushfire management process. Firefighting is generally the role of the Fire Services but, just as importantly response includes those critical actions that community members will take when bushfires threatens.

Strategy: Community members take responsibility to undertake the necessary actions to improve their ability to survive bushfire events.			
No.	Actions to achieve the strategy	Priority	Responsibility
15	<p>Throughout the bushfire season, community members maintain awareness of local bushfire events and the regional bushfire situation. This can be achieved through:</p> <ul style="list-style-type: none"> • fire services websites; • other websites, such as the Bureau of Meteorology; • Canberra Connect; • radio or television and online media services⁸; • identifying and maintaining contact networks with friends, neighbours and family; and • contact with local Volunteer Brigade and CFU members. <p><i>Bushfire Advice</i> messages will provide general information to keep the community up to date with the local bushfire situation and developments.</p>	High	All community members
16	<p>The decisions and actions community members take when bushfires occur are critical to their safety. Fires can threaten suddenly and without warning and community members should be prepared to act, potentially without receiving any emergency warning. Critical in this is the need to:</p> <ul style="list-style-type: none"> ▪ know what the Fire Danger Rating is; ▪ watch for signs of fire, especially smoke and flames; ▪ put preparations into action – activate your home emergency plan and do not 'wait and see'; ▪ act decisively the moment when danger is known; and ▪ know the safest place is to be away from the fire. <p><i>Watch and Act</i> messages will identify that a bushfire is approaching and conditions are changing; community members need to start taking action at this stage to protect themselves and their family.</p> <p><i>Emergency Warning</i> messages will identify that community members are in danger, will be impacted by bushfire and need to take action immediately.</p>	High	All community members

⁸ Radio or television and online media services: The ESA and other emergency services will utilise a range of broadcast media to disseminate messages. The ESA has arrangements in place with local media for the dissemination of public warning and emergency information 24 hours a day, 7 days a week.

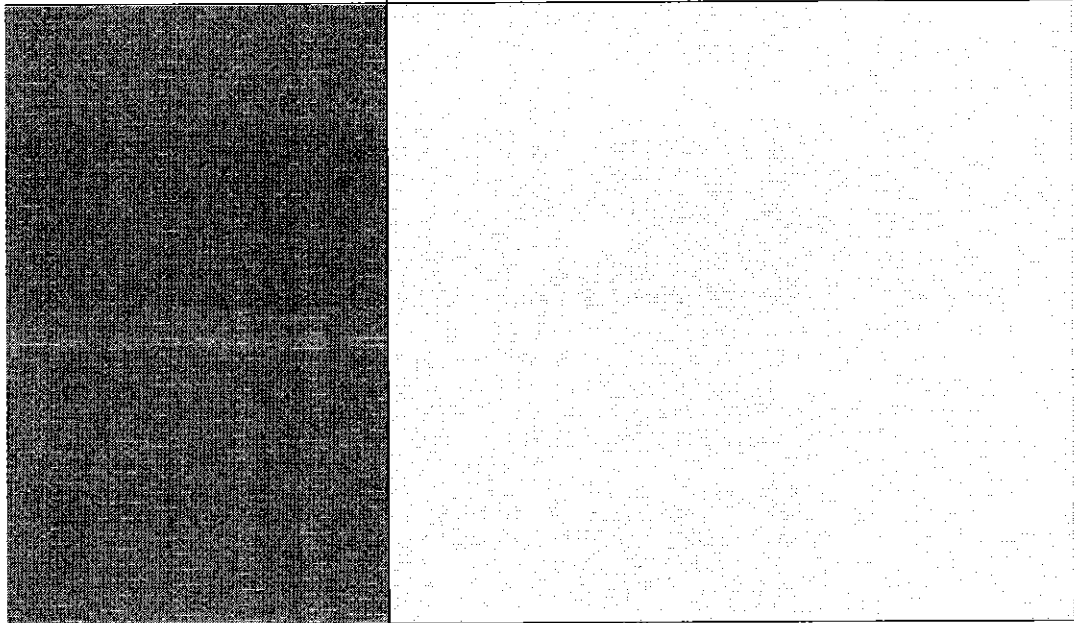
Recovery

Recovery is risk mitigation that limits the consequences after a bushfire. Recovery is complex as it deals with social, economic, physical and environmental rehabilitation. It is an integral part of the whole process and consciously considered at each other stage of the process.

Strategy: Communities lead their own recovery in partnership with the ACT Government and other agencies			
No.	Actions to achieve the strategy	Priority	Responsibility
17	Work collaboratively and contribute skills and resources to assist with the recovery of community, businesses and individuals.	Medium	Community members
18	In cooperation with emergency services, rural landholders and managers of social and critical infrastructure commence recovery actions for: <ul style="list-style-type: none"> • animal welfare and environmental requirements; • the maintenance of services, businesses; and commercial enterprises. These actions may need to be undertaken while bushfires are still actively burning.	Medium	Rural landholders and infrastructure managers

Strategy: Communities support each other and contribute to the development of a more prepared community			
No.	Actions to achieve the strategy	Priority	Responsibility
19	Following bushfire events, both in the short and long term, community members should be encouraged to undertake ongoing monitoring of their own wellbeing and that of vulnerable family, neighbours and other community members, to ensure their safety and individual needs and, if necessary, assist or seek appropriate assistance for them.	High	Individuals and community members

PART FIVE – Implementation Plan for the ACT Government



ACT Government Implementation Plan

For the ACT Government to develop and implement an integrated, efficient and effective bushfire management program

Research, information and analysis

Research, information and analysis provide the necessary processes, information and understanding to implement actions under all of the categories in this framework. Planning and management cannot be improved without analysis of past events and incorporation of improved technological and operational developments. Research provides valuable insights into critical factors and causal relationships.

Strategy: The ACT Government and the community work together to share knowledge and information to prepare and maintain integrated Regional Fire Management Plans

No.	Actions to achieve the strategy	Priority	Responsibility
1	The Plan will be reviewed within five years. Given that many of the policies of this Plan will be implemented over a longer period, the Plan considers a ten-year outlook (or longer) in some key areas. Amendment of this Plan may be undertaken consistent with the <i>Emergencies Act 2004</i> as required by changes in legislation, policy or advances in knowledge.	High	Minister for Police and Emergency Services
2	The ACT Government have prepared Regional Fire Management Plans under this Plan. These plans establish operational objectives for the next ten years and inform the annual Bushfire Operational Plans. These plans will be reviewed annually to reflect seasonal and operational issues that affect the implementation of the plans. ^{9, 10}	High	Commissioner ESA, TAMS
3	The ACT Government will assist the community in their understanding of fire management practices in Regional Fire Management Plans (including prescribed burning) through awareness and education programs.	Medium	Commissioner ESA, TAMS

9. The annual review and any amendments required to these plans will be approved by the Commissioner ESA and may be notified to the public without prior consultation

10. Regional Fire Management Plans are based on the sixteen 1:25000 map sheets that provide coverage of the ACT and adjacent areas of NSW. They are available for viewing on the ESA website: www.esa.act.gov.au. A description of the content of these plans is found at schedule E.

Strategy: Undertake monitoring and review of the effects of the operations and activities resulting from this Plan and sub-plans and report back to the community and adjust strategies as necessary

No.	Actions to achieve the strategy	Priority	Responsibility
4	The ACT will maintain a commitment to ongoing nationally coordinated bushfire research. The most recent advances in the knowledge related to the effects and effectiveness of fire management found through engagement with relevant state, national and international bodies for bushfire research and management, will be used to inform training, awareness and other programs.	Medium	Commissioner ESA and TAMS
5	Regular and ongoing sampling and assessment will be undertaken to monitor the effects of bushfires and bushfire management, in particular prescribed burning and its impact on fuel levels, flora and fauna. This assessment will be used to inform and adapt future practices as appropriate.	Medium	TAMS
6	Regular and ongoing assessment of the effectiveness of community education and awareness programs will be undertaken and where appropriate, these programs will be reviewed in consideration of this assessment, best practice and national standards to ensure they remain current and effective. Initial assessment will be undertaken during the 2010-11 bushfire season, with ongoing review of education and awareness programs.	High	Commissioner ESA
7	Annual reports will be prepared to document the ACT Government's compliance with actions identified under this Plan ¹¹ .	High	Commissioner ESA
8	The ESA may appoint Inspectors in accordance with the Act, who may assess and give direction to land managers on the implementation of bushfire management requirements in this Plan and sub-plans ¹² .	Medium	Chief Officer ACT RFS Chief Officer ACT FB

11. This report may be used to support the audit of the Plan by the ACT Bushfire Council (See action 5). Schedule A identifies procedures associated with preparation of these reports.

12. This may include those actions required of Government Agencies and members of the community.

Strategy: Analyse the response to and the effects of bushfires for future learning and adjust strategies where this new information and knowledge will result in improved outcomes

No.	Actions to achieve the strategy	Priority	Responsibility
9	<p>Consider and undertake where appropriate, opportunistic research into:</p> <ul style="list-style-type: none"> • fire behaviour, firefighting methods and firefighter performance¹³; and • the effects of bushfire on natural and cultural values¹⁴. <p>The findings (as well as findings from other research and analysis) may be used to inform the annual review of Regional Fire Management Plans, future pre-fire season briefings, fire operations and performance improvement.</p>	High	Chief Officer ACT RFS, TAMS
10	<p>Conduct a formal debriefing and analysis of findings following bushfires where:</p> <ul style="list-style-type: none"> • substantial resources were engaged¹³; • bushfire damage to assets or values was significant¹³; • safety was compromised¹³; or • recovery issues have been raised¹⁵. <p>The findings should be used to inform the annual review of Regional Fire Management Plans, future pre-fire season briefings, fire operations and procedures, and performance improvement.</p>	High	Chief Officer ACT RFS, Chief Officer ACT FB, TAMS, DHCS

Strategy: Actively work with other fire agencies to develop bushfire management strategies that are aligned and acknowledge the level of bushfire risk to each jurisdiction

No.	Actions to achieve the strategy	Priority	Responsibility
11	<p>To achieve effective coordination and cooperation for bushfire response and preparedness, maintain formal agreements between ACT and NSW agencies and develop Memoranda of Understanding to provide for:</p> <ul style="list-style-type: none"> • integrated and efficient responses to bushfires, including the cross border response arrangements, appointment to incident management positions, common communications, training, integrated planning and incident management, shared resources and mutual support; and • common approaches and protocols between agencies for community education and awareness. <p>Agreements will be reviewed annually.</p>	High	Chief Officer ACT RFS Chief Officer ACT FB

13. Generally undertaken by the ESA.

14. Generally undertaken by TAMS.

15. Generally undertaken by TAMS or DHCS, depending on the type of Recovery Issues.

12	<p>To achieve effective and integrated cross-border fire prevention strategies, participate in planning arrangements which include the identification of cooperative management areas and where appropriate, maintain formal agreements to:</p> <ul style="list-style-type: none"> • provide for an integrated and complimentary approach to bushfire risk assessment; and • develop complimentary strategies for bushfire prevention, including fuel management and access. <p>Agreements will be reviewed annually.</p>	High	Chief Officer ACT RFS, TAMS
13	<p>Work with managers of National Land in the ACT (including the National Capital Authority and Department of Defence) in areas identified as Cooperative Management Areas, to provide for:</p> <ul style="list-style-type: none"> • advice in relation to bushfire risk to assets; • a framework for bushfire management in these areas complimentary to this Plan; and • strategies and actions for mitigation of bushfire risk which are integrated and consistent with the strategies of this Plan. 	High	Commissioner ESA

Prevention

Prevention encompasses pre-emptive risk mitigation action by the ACT Government and the community to reduce the likelihood of bushfires starting, spreading and/or causing damage to assets.

Strategy: Undertake targeted programs to reduce the number of unplanned ignitions

No.	Actions to achieve the strategy	Priority	Responsibility
14	Targeted awareness and education programs will be provided to: <ul style="list-style-type: none"> assist the community in understanding its legal obligations and social responsibilities in relation to bushfire ignitions; reduce preventable ignitions; and improve early detection. 	High	Commissioner ESA
15	Statutory powers will be used to control the use of fire and activities known to cause bushfires. These powers should be used to: <ul style="list-style-type: none"> regulate the use of fire by the introduction of seasonal restrictions (i.e. the bushfire season); regulate the use of machinery considering the level of fire danger; and declare days of total fire ban¹⁶ in the ACT to limit ignitions or when local or regional conditions may require increased levels of vigilance. 	High	Chief Officer ACT RFS, Chief Officer ACT FB
16	The ESA may appoint Investigators in accordance with the Act to undertake investigation into the cause and effect of bushfires where required. If arson is suspected, action may be taken to investigate and, as far as possible and appropriate, identify and prosecute the suspected offender/s.	Medium	Chief Officer ACT RFS, Chief Officer ACT FB

Strategy: Maintain a network of fire trails and helipads (bushfire management access network) to provide for rapid response to bushfires and to undertake effective bushfire fighting and hazard reduction operations

No.	Actions to achieve the strategy	Priority	Responsibility
17	A bushfire management access network in the ACT is identified in Regional Fire Management Plans ¹⁷ . This includes: <ul style="list-style-type: none"> Schedule B identifies classification and performance standards for the bushfire management access network. Review of the fire access network will be undertaken as part of the annual review of Regional Fire Management Plans. 	High	Chief Officer ACT RFS, TAMS

16. Days of Total Fire Ban will generally be called when the Fire Danger Index is at 50 or above (Fire Danger Ratings of Severe, Extreme or Catastrophic)

17. Review of the bushfire management access network will take into account the necessary linkages between publicly and privately managed lands. It will also consider access for the full range of fire response capability including heavy plant transport, light plant access, aerial access, bushfire appliances and remote area access.

18	<p>Government land managers will prepare Bushfire Operational Plans consistent with Regional Fire Management Plans which detail works to be carried out¹⁸ on fire management access networks on their land that include:</p> <ul style="list-style-type: none"> • fire trail maintenance; • fire trail upgrades; and • fire trail construction. <p>Bushfire Operational Plans will be prepared every two years, or less as required.</p>	High	Land managers
19	<p>Through Farm FireWise, the ESA will assist landholders in identifying strategic fire management access on rural land. The ESA may provide resources to assist in the planning and implementation of fire management access networks.</p>	High	Chief Officer ACT RFS

Strategy: Establish priorities for prevention and preparedness activities which reduce the likelihood and consequences of catastrophic bushfire events			
No.	Actions to achieve the strategy	Priority	Responsibility
20	<p>Lands in the ACT are classified into Fire Management Zones¹⁹ to assign priorities to implementing prevention and preparedness activities, including fuel management. These zones are:</p> <ul style="list-style-type: none"> • Ember Zone; • Inner Asset Protection Zone; • Outer Asset Protection Zone; • Strategic Firefighting Advantage Zone; • Landscape Fire Management Zone; and • Agricultural Fire Management Zone. <p>The specifications and fuel management standards for zones are found at Schedule C.</p> <p>Maps of these zones are included for explanatory purposes in Part Three of this Plan.</p> <p>Zones will be reviewed annually to reflect changes in land use in the ACT, operational considerations and any advances in the knowledge and understanding of bushfire risk²⁰.</p>	High	Commissioner ESA

18. In planning, constructing or maintaining bushfire access, land managers are required to comply with other legislation.

19. Fire management zoning provides the framework for the development of Regional Fire Management Plans. The size and alignment of these zones will reflect the risk of bushfires starting, spreading and causing damage. The location of zones may be required away from the source of the risk or other mitigation methods, may be applied where treatments cannot always be required in these areas of highest risk. This may be due to a range of factors, including operational, environmental, water catchment and other values that may be affected.

20. These zones will be subject to annual review. Where amendments are required they will be approved by the Commissioner ESA. These changes may be made without prior public consultation.

Strategy: Maintain a mosaic of fuel loads at a landscape level, through Strategic Firefighting Advantage Zones that assist in suppressing bushfires and minimise environmental consequences

No.	Actions to achieve the strategy	Priority	Responsibility
21	Location and timing of fuel reduction activities in Strategic Firefighting Advantage Zones are identified in Regional Fire Management Plans and reviewed annually ²¹ . The locations of Strategic Firefighting Advantage Zones may vary between Plans to achieve fire management objectives in the short to medium term and ensure a mosaic of fuel loads over the longer term.	High	Commissioner ESA and Land managers
22	The use of planned fire for ecological and environmental management will be identified in Regional Fire Management Plans.	Medium	Land managers
23	Land managers will prepare Bushfire Operational Plans that detail fuel management works in Strategic Firefighting Zones to meet the standards identified in this Plan. Bushfire Operational Plans will be prepared every two years, or less as required.	High	Government land managers
24	Through Farm FireWise, the ESA will assist landholders in identifying fuel management requirements on rural land. Where Cooperative Management Areas are identified, the ESA will coordinate liaison between land managers to achieve the objectives for the area. ESA may provide resources to assist in the planning and implementation of fire management works ²² .	High	Chief Officer ACT RFS

Strategy : Provide for primary bushfire risk reduction adjacent to assets through Asset Protection Zones that assist in reducing the consequences of bushfires

No.	Action to achieve the strategy	Priority	Responsibility
25	Location and timing of fuel management in Inner and Outer Asset Protection Zones are identified in Regional Fire Management Plans and will be reviewed annually ²³ .	High	Commissioner ESA and Land managers
26	Land managers will prepare Bushfire Operational Plans that detail fuel management in the Inner and Outer Asset Protection Zones to meet the standards identified in this Plan. Bushfire Operational Plans will be prepared every two years, or less as required.	High	Government land managers
27	Through Farm FireWise, the ESA will assist landholders to identify asset protection requirements on rural land. The ESA may provide resources to assist in the planning and implementation of fuel management activities.	High	Chief Officer ACT RFS and rural landholders

21. The size, impact and timing of unplanned bushfires in the landscape, seasonal variations or other significant events may require review of Strategic Firefighting Advantage Zones. Any amendments that are required will be approved by the Commissioner ESA. These changes may be made without prior public consultation.
22. The ESA and ACT Government land managers will participate in the development of cooperative arrangements with adjacent landholders and community groups, to integrate fuel management activities and bushfire access adjacent to public land boundaries.
23. Inner and Outer Asset Protection Zones will generally remain fixed over the long term, although they will be reviewed annually to reflect new urban areas and other property and infrastructure developments. The location and timing of activities in Inner and Outer Asset Protection Zones on rural leases will be identified as part of the Farm FireWise Program and will not be identified initially on Regional Fire Management Plans (See action 26). Any amendments that are required will be approved by the Commissioner ESA. These changes may be made without prior public consultation.

Strategy: Reduce bushfire risk in areas subject to ember attack, radiant heat and flame contact through effective urban planning, design and construction

No.	Actions to achieve the strategy	Priority	Responsibility
28	Standards for the planning, design and layout of new urban areas ²⁴ will be prepared to reduce vulnerability to the impacts of bushfire and should include requirements for (but not be limited to): <ul style="list-style-type: none"> • bushfire risk analysis specific to the area or development; • requirements for Inner and Outer Asset Protection and Ember Zones²⁵; • the construction of buildings to meet the Building Codes of Australia AS:3959/1999 - <i>Construction of Buildings in Bushfire Prone Areas</i> (or any revisions)²⁶; • access into and egress from subdivisions for firefighting and evacuation; • infrastructure for firefighting and community support; • the type and location of fencing and outbuildings; • the type and use of permissible structures; and • appropriate plants and horticultural practices in high risk areas. 	High	ACTPLA
29	New urban plantings and management of existing plantings by Government land managers will consider bushfire risk management issues in determining the location, species, density, extent and maintenance of plantings.	High	TAMS, ACTPLA, LDA
30	Where identified ²⁷ , managers of ACT Government properties in Ember Zones and rural areas (and elsewhere as appropriate) will prepare Bushfire Operational Plans to reduce vulnerability to the impacts of bushfire. Bushfire Operational Plans will be prepared every two years, or less as required.	High	ACT Government agencies
31	Assessment of arrangements for evacuation and the provision of community refuge areas in the rural villages of the ACT and other areas where identified will be undertaken and as appropriate, strategies developed to address deficiencies. Initial assessment will be undertaken prior to the commencement of the 2010-2011 bushfire season, with ongoing development of strategies.	High	Chief Officer ACT RFS and Chief Officer ACT FB

24. The ACT Planning and Land Authority (ACTPLA) is revising the Territory Plan's existing Planning for Bushfire Risk Mitigation General Code, which will remain in force until the review is completed and a new version implemented through the Residential Subdivision Development Code of the Territory Plan expected in 2010.
25. In new urban areas construction may be staged within and across subdivisions over the period of development. In this case, temporary zoning may be applied to provide for bushfire protection before completion of the development. In this case, temporary zoning and treatments will be considered as part of the bushfire risk assessment prepared.
26. Some areas of the ACT are declared bushfire prone; however other areas as identified in a bushfire risk assessment may require the application of these standards.
27. The ESA will assist in advising Government property managers where there are requirements for the preparation of Bushfire Operational Plans.

Preparedness

Preparedness ensures that when bushfires occur, ACT Government agencies, the community and individual land managers are ready to respond in ways that are effective and soundly based. These will include early detection, having appropriately trained and experienced firefighters, a prepared community and the necessary plans, physical and information resources in place to respond to bushfire and provide information, advice and warnings to the community.

Strategy: Ensure sufficient skilled and motivated personnel are available to meet bushfire management requirements

No.	Actions to achieve the strategy	Priority	Responsibility
32	<p>The necessary number of personnel, the mix of skills, their location and makeup (volunteer and paid) will be determined based on potential bushfire situations, resources and ability to maintain capability and experience. Actions taken to support and maintain capability may include:</p> <ul style="list-style-type: none"> strategies for the recruitment and retention of volunteer firefighters; and workforce planning to maintain and recruit firefighters at identified skill levels. <p>An agreed process will be established prior to the commencement of the 2010-11 bushfire season, with ongoing review.</p>	Medium	Chief Officer ACT RFS and Chief Officer ACT FB
33	<p>Training will be ongoing and delivered based on the operational requirements of the Services to meet or exceed national training and qualification standards, currency and competency requirements where they exist.</p> <p>The delivery and assessment of bushfire fighting related training should be applied consistently across the ESA and individual training pathways should follow a continuum of skills development that recognises and builds on prior learning.</p>	High	Chief Officer ACT RFS and Chief Officer ACT FB
34	<p>The experience, training and competencies to fill specialist firefighting and fire management roles will be established. Specialist skills include:</p> <ul style="list-style-type: none"> incident management roles; situation analysis and fire behaviour modelling; and specialist and high level fire fighting skills, including Divisional Commander, Remote Area Crews, large scale back burning skills, plant supervision and aircraft management; and planning and implementation of prescribed burning. <p>Delivery of specialist training is ongoing. Further assessment of requirements will be undertaken prior to the commencement of the 2010-11 bushfire season, with ongoing review and delivery of training competencies.</p> <p>Deployment of firefighters to interstate and overseas incidents and secondments to other fire agencies will be undertaken where possible to enhance and maintain skills.</p>	High	Chief Officer ACT RFS, Chief Officer ACT FB and TAMS

35	Strategies for the provision of incident support functions will be developed, including the support for staging, logistics and incident coordination. Further assessment of requirements will be undertaken prior to the commencement of the 2010-11 bushfire season and will be ongoing.	Medium	Chief Officer ACT RFS and Chief Officer ACT FB
36	Records of personnel expected to be involved in bushfire fighting, including training and experience in assigned roles, will be maintained and available for incident management and training purposes. An agreed process will be established prior to the commencement of the 2011-12 bushfire season, with ongoing implementation and review.	High	Chief Officer ACT RFS and Chief Officer ACT FB

Strategy: Ensure the standard and quantity of equipment and resources available for bushfire suppression meet bushfire suppression objectives			
No.	Actions to achieve the strategy	Priority	Responsibility
37	Current resources (which include firefighting vehicles) will be assessed annually against requirements. This includes: <ul style="list-style-type: none"> documenting available equipment for firefighting; regular inspection and maintenance of equipment; and where deficiencies exist, development of strategies for addressing those deficiencies. A strategic asset management plan has been prepared to define the ongoing management requirements for fleet and capital equipment for bushfire fighting and will be regularly reviewed.	Medium	Chief Officer ACT RFS and Chief Officer ACT FB
38	Backup stores and services for firefighting will be maintained and reviewed annually.	High	Chief Officer ACT RFS and Chief Officer ACT FB and TAMS
39	Ensure timely access to specialist equipment that will enable rapid and effective response to bushfire. This includes: <ul style="list-style-type: none"> aircraft including fixed and rotary wing for fire suppression and insertion of firefighters into remote areas; aircraft support facilities, and arrangements for the use of fire retardants including the locations and conditions under which it may be used; and light and heavy plant for rapid response and containment line construction. Arrangements for the provision of specialist equipment will be reviewed annually.	High	Chief Officer ACT RFS and TAMS
40	Incident Control Centres and coordination facilities will be prepared and maintained. These facilities may be pre-emptively activated and staffed based on the level of bushfire risk to enable immediate operation if required. Annual exercises will be undertaken to test these facilities (unless they have been sufficiently activated and exercised in actual incident response).	High	Chief Officer ACT RFS and Chief Officer ACT FB

Strategy: Ensure critical information and detection methods are available and arrangements are in place for firefighters to rapidly and effectively respond to bushfires

No.	Actions to achieve the strategy	Priority	Responsibility
41	During the bushfire season ²⁸ , determine the daily requirements for the quantity and availability of personnel and equipment for bushfire suppression ²⁹ , and ensure that a system of early detection is in place throughout the year and in accordance with variations in the existing and forecast seasonal trends in weather and fuel characteristics ³⁰ .	High	Chief Officer ACT RFS Chief Officer ACT FB
42	Develop procedures and, as appropriate provide resources, to facilitate the rural community in reporting ignitions and undertaking initial attack. Procedures will be prepared prior to the commencement of the 2011-12 bushfire season.	Medium	Chief Officer ACT RFS
43	Ensure an effective ACT-wide radio network with the ability to be linked with other response agencies, both within and external to the ACT. Communications arrangements are to be reviewed and updated annually.	High	Commissioner ESA
44	Develop, exercise and apply technical capabilities to predict bushfire behaviour and spread, supported as required by technical specialists in fire behaviour modelling and meteorology. Development and specialist training is underway. Full and integrated assessment of requirements will be undertaken prior to the commencement of the 2010-11 bushfire season with ongoing review.	High	Chief Officer ACT RFS Chief Officer ACT FB
45	Provide geographic information systems capability to enable the production of bushfire specific maps. Information is to be available in print and electronic form and capable of modification during firefighting operations. Information needs to be portable and readily available to Incident Controllers and fire ground Commanders. Capability will be reviewed annually.	High	Chief Officer ACT RFS and Chief Officer ACT FB and TAMS
46	The ESA and Government land management agencies in the ACT are to ensure that maps of public and private land in the ACT are subjected to periodic review and update.	High	Chief Officer ACT RFS TAMS & ACTPLA
47	Pre-suppression plans will be prepared and distributed to provide necessary information to undertake initial attack of fires. Planning has been undertaken and further development and integrated procedures will be completed prior to the commencement of the 2011-12 bushfire season.	High	Chief Officer ACT RFS and Chief Officer ACT FB and TAMS

28. These requirements may be established prior to and after the bushfire season as appropriate.

29. Resource requirements will be determined considering a number of factors including the Fire Danger Index as identified in the National framework for scaled advice and warnings to the community (2009).

30. The detection system will include the use of the ACT fire tower network; aircraft; and spatial and satellite information.

Strategy: Provide support to the community to enhance its awareness and capacity to Prepare, Act and Survive the threat of bushfire			
No.	Actions to achieve the strategy	Priority	Responsibility
48	<p>Develop and implement an integrated Bushfire Education and Awareness Program consistent with the <i>National framework for scaled bushfire advice and bushfire warnings</i>, which includes:</p> <ul style="list-style-type: none"> information that reflects the current knowledge and understanding of how the community should prepare for and respond to bushfires; information and advice that is targeted for communities and individuals, particularly in the rural area and Ember Zones; the necessary information for the preparation of a home emergency plan; Information on the Fire Danger Rating system and the manner in which it will be used; utilisation of a range of mediums for the dissemination of information; and the use of the Standard Emergency Warning Signal (SEWS) and the use of telephony warning systems. <p>This action has commenced and will be ongoing to fully integrate the actions identified.</p>	High	Commissioner ESA
49	<p>Provide support to community members, particularly those in areas identified as Ember Zones to participate in an integrated bushfire education and awareness program in order to assist in understanding how bushfires may affect them and to plan for personal bushfire response. type of messages they will contain.</p>	High	Commissioner ESA
50	<p>Establish and maintain formal agreements between the ESA and local ACT media outlets, and develop Memoranda of Understanding to provide for:</p> <ul style="list-style-type: none"> The provision of warnings and information to the community during bushfire events; and Information and advice to assist the community in preparing for bushfires. <p>Memorandums of Understanding are in place and will be reviewed annually.</p>	High	Commissioner ESA
51	<p>Clearly define and annually exercise the operational arrangements, responsibilities and delegations for the provision of information, warnings and directions to the public in the event of bushfires.</p>	High	Chief Officer ACT RFS and Chief Officer ACT FB
52	<p>Ensure firefighting and support agencies understand principles and policy relating to <i>Prepare, Act, Survive</i> and are trained in the evacuation protocols that will apply.</p> <p>This action has commenced and will be ongoing.</p>	High	Chief Officer ACT RFS and Chief Officer ACT FB and AFP
53	<p>Undertake planning to identify groups or individuals who have specific needs³¹.</p> <p>Planning has been undertaken and further development and integrated procedures will be completed prior to the commencement of the 2010-11 bushfire season.</p>	High	Chief Officer ACT RFS and Chief Officer ACT FB

31 Specific needs includes those members of the community who may require specialist support, information or advice in relation to bushfires and may include the schools and community care facilities, physically and intellectually disabled, supported care, elderly, and culturally and linguistically diverse communities

Response

Effective response to bushfires when they start can mitigate bushfire risk, through limiting the spread and the consequences of bushfire. Response includes the firefighting component of the overall bushfire management process. Firefighting is generally the role of the Fire Services but, just as importantly response includes those critical actions that community members will take when bushfires threatens.

Strategy: Respond to bushfires safely, effectively and efficiently to control and extinguish the fires			
No.	Actions to achieve the strategy	Priority	Responsibility
54	<p>Bushfires will be responded to as quickly as possible by the Fire Services with the principal objective of extinguishing the bushfire.</p> <ul style="list-style-type: none"> consideration should be given to allowing bushfires to burn to defined containment lines if they meet other fire management objectives and do not pose a risk to assets; and mop up and patrol are integral to suppression and will be undertaken to prevent re-ignition and to minimise damage to infrastructure and assets. 	High	Chief Officer ACT RFS and Chief Officer ACT FB
55	<p>Response actions will consider:</p> <ul style="list-style-type: none"> safety of firefighters; current and predicted fire behaviour; assets at risk from the bushfire fighting activities; resources available locally and through broader emergency arrangements; bushfire fighting methods most appropriate to the area, considering production, environmental, catchments and heritage assets; recovery and rehabilitation of production, environmental, catchment and heritage assets; and likelihood of success of alternative bushfire fighting methods. 	High	Chief Officer ACT RFS and Chief Officer ACT FB
56	Existing bushfires will be assessed in a structured framework commensurate with the level of risk and to assess likely spread and impacts.	High	Chief Officer ACT RFS and Chief Officer ACT FB
57	<p>The control structure and corresponding scaling up of resources for bushfire fighting will follow the Australasian Inter-service Incident Management System (AIIMS).</p> <p>The Incident Controller will be appointed based on their skills, competence and experience, and the scale and type of incident³².</p>	High	Chief Officer ACT RFS and Chief Officer ACT FB

32. Through the Memorandum of Understanding with NSW fire agencies, (see action 10) procedures are established to determine control arrangements for bushfires that cross, or have the potential to cross jurisdictional boundaries.

58	Documented Incident Action Plans will be prepared consistent with the scale of the incident.	High	Chief Officer ACT RFS and Chief Officer ACT FB
59	Records will be maintained of each bushfire attended consistent with the Operating Procedures ³³ . Minimum requirements for recording bushfire information are identified at Schedule D.	High	Chief Officer ACT RFS and Chief Officer ACT FB

Strategy: Provide the necessary information, advice and warnings to the community to enable immediate response and appropriate actions by individuals when bushfires occur

No.	Actions to achieve the strategy	Priority	Responsibility
60	Consistent with the principles established in the <i>National framework for scaled bushfire advice and warnings to the community</i> (2009), response to bushfire includes information to the community that: <ul style="list-style-type: none"> is scaled to describe the type of threat, potential impact and timing; is targeted to at risk communities; and considers the actions communities members should undertake. 	High	Chief Officer ACT RFS and Chief Officer ACT FB
61	Responsibility for the release of information, including the provision of advice or warnings relating to the bushfire will rest with the Incident Controller ³⁴ . If a State of Emergency has been declared, this responsibility will rest with the Territory Controller.	High	Chief Officer ACT RFS and Chief Officer ACT FB, Territory Controller
62	Responsibility for the issuing of directions relating to the movements of people, including evacuation, establishing refuge areas and re-occupation and will rest with the Incident Controller ³⁵ . If a State of Emergency has been declared, this responsibility will rest with the Territory Controller. Permission for access to evacuated areas during an incident must consider the needs of particular groups and individuals, including: <ul style="list-style-type: none"> rural landholders who may require access to respond to animal welfare, infrastructure and environmental requirements; managers of social and critical infrastructure for the maintenance of services; businesses and commercial enterprises; and residents. 	High	Chief Officer ACT RFS and Chief Officer ACT FB, Territory Controller
63	The Public Information Coordination Centre may be activated and will support the Incident Controller or Territory Controller for the provision of information and advice.	High	Chief Officer ACT RFS and Chief Officer ACT FB, Territory Controller

33. Records shall be maintained that allow reporting against ACT Government and, where appropriate, national performance indicators.

34. Other information relating to the incident may be released by other agencies, such as recovery information or issues relating to criminal investigation.

35. Evacuation and re-occupation of areas will be undertaken consistent with the ACT Emergency Evacuation Policy (2008) or subsequent revisions.

64	<p>Actions should ensure stakeholders are engaged as appropriate during bushfire fighting activities and the development of response strategies, to take advantage of local knowledge and address the specific requirements of :</p> <ul style="list-style-type: none"> • Government land managers; • rural landholders; • business and critical infrastructure managers; • recovery services; and • other response agencies. 	High	Chief Officer ACT RFS and Chief Officer ACT FB
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Strategy: Where multiple agencies are involved or significant events occur, ensure the response to bushfires is undertaken in a coordinated manner

No.	Actions to achieve the strategy	Priority	Responsibility
65	<p>Depending on the scale, number, and complexity of the incident(s), an Incident Coordinator may be established to coordinate resources in support of the Incident Controller. This may include:</p> <ul style="list-style-type: none"> • the acquisition and of resources (organisational, personnel and equipment) to support incident response and recovery; and • the transfer of information and intelligence. <p>Dependent on the scale and type of incident, an Emergency Coordination Centre (ECC) may be activated³⁶.</p>	High	Chief Officer ACT RFS and Chief Officer ACT FB
66	<p>As required, the Incident Controller will provide information and advice on response to the incident to the appropriate Government agencies and the ACT Government.</p> <p>If a State of Emergency has been declared, this responsibility may rest with the Territory Controller.</p>	High	Chief Officer ACT RFS and Chief Officer ACT FB, Territory Controller
67	<p>A range of specific roles and functions identified in the ACT Emergency Plan may be activated depending on the scale and complexity of the incident(s) and potential consequences. The ACT Emergency Plan will be used to activate these roles and functions. These may include:</p> <ul style="list-style-type: none"> • whole of Government Incident notification; • arrangements for incident support, including whole of government coordination of resources; • activation of the Territory Crisis Centre; • appointment of a Territory Controller; and • declaration of State of Emergency; 	High	Chief Minister Minister for Police and Emergency Services Commissioner ESA Chief Police Officer AFP JACS CMD

36. The role of the Incident Coordinator is to provide support to the Incident Controller, and is not involved in combating the incident

Recovery

Recovery is risk mitigation that limits the consequences after a bushfire. Recovery is complex as it deals with social, economic, physical and environmental rehabilitation. It is an integral part of the whole process and consciously considered at each other stage of the process.

Strategy: Restore healthy, diverse, and resilient ecological systems on a priority basis through long-term restoration

No.	Actions to achieve the strategy	Priority	Responsibility
68	As soon as practicable following commencement of firefighting operations, consider routine rehabilitation activities and assess the need for a formal rehabilitation plan.	High	Chief Officer ACT RFS, Chief Officer ACT FB, land managers
69	Develop an ACT capacity to assess burned areas and the need for environmental rehabilitation by 2014. Apply methods consistent with the BAER model ³⁷ .	Medium	TAMS

Strategy: Coordinate and deliver programs and services to assist the recovery of affected communities and individuals, including firefighting personnel and support staff

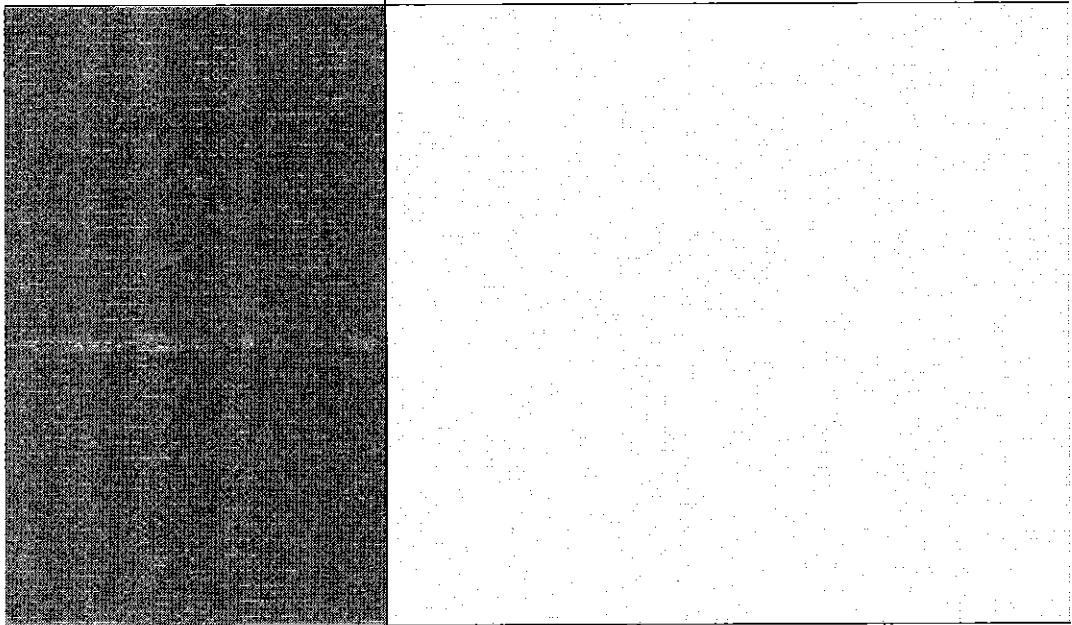
No.	Actions to achieve the strategy	Priority	Responsibility
70	Develop procedures for the provision of Critical Incident Stress Management and Peer Support within the Fire Services. When firefighting has been prolonged, or there have been associated traumatic experiences (such as 'near misses', injury or death), an opportunity for critical incident stress debriefing will be provided. Procedures are in place and arrangements will be reviewed as required.	High	Chief Officer ACT RFS, Chief Officer ACT FB
71	In the event of or in anticipation of significant bushfire consequences, the ACT Community Recovery Plan ³⁸ may be activated and may include the activation of established recovery centres where appropriate. The Incident Controller is responsible for ensuring recovery planning is initiated. If a State of Emergency has been declared, this responsibility will rest with the Territory Controller.	High	Chief Officer ACT RFS and Chief Officer ACT FB, Territory Controller
72	In the event of significant bushfire consequences on rural and other business enterprises, Government agencies will work with rural landholders and industry bodies to enhance distribution of recovery information and support, which may include assistance to rural landholders.	High	Commissioner ESA, DHCS and TAMS

37. The concept of interagency Burned Area Emergency Response (BAER) teams was developed in the United States of America to support agencies in their analysis of post-fire effects. The BAER teams aim to provide a holistic, multidisciplinary, rapid assessment of post-wildfire environmental issues and provide assessments and recommendations on emergency stabilisation (immediate response) and burned area rehabilitation.

38. Available via the ACT Department of Housing and Community Recovery Website: www.dhcs.act.gov.au/community_recovery.

73	In the event of significant bushfire consequences, coordinate the immediate support arrangements and assistance measures for those affected and work with the community, community organisations and other agencies to ensure that the elements of the recovery are coordinated and targeted to address different needs of individuals or groups.	High	DHCS and community partners
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PART SIX – Resource Requirements



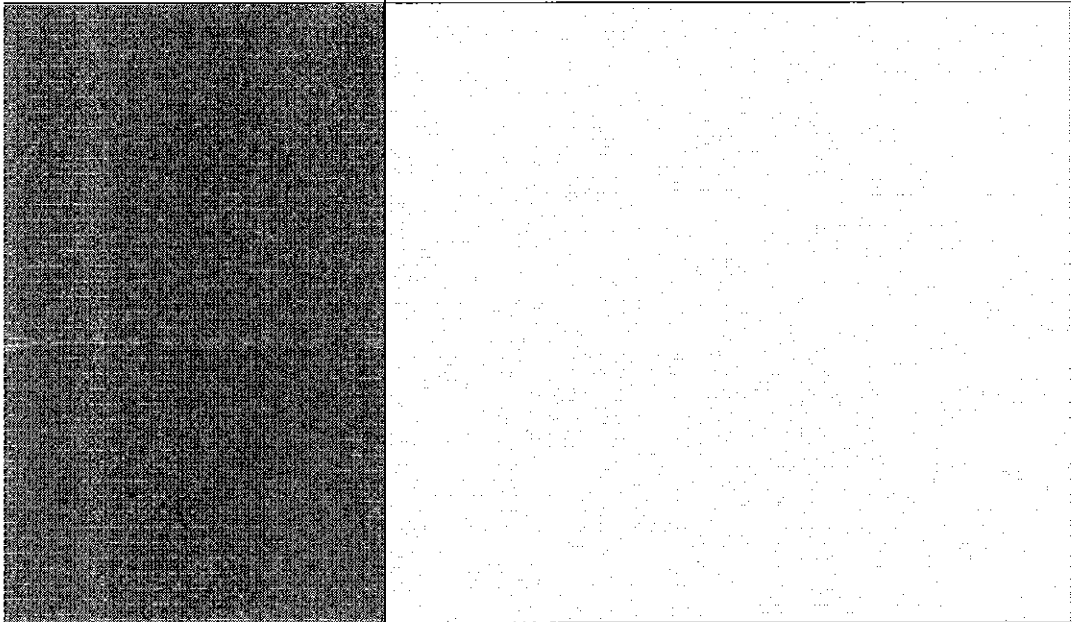
Chapter Six: Resourcing

The resourcing of this Plan may require additional funding and will be determined in the context of whole-of-government budget considerations over the life of the Plan.

The various elements and aspects of the Strategic Bushfire Management Plan will generate demands on the agencies and individuals responsible for them. In some cases these may be significant across the life of the plan and will require specific calculation and procuring. Bushfire management is a long term process requiring strategic, management and operational consistency over an extended period. Hence the Strategic Bushfire Management Plan is for 10 years. It is critical that the need for consistent implementation of the requirements of the plan is understood and supported throughout the ACT community and on the part of government. Clear calculations of costs are pivotal to the maintenance of this understanding and the continuity of resource provision.

The use of the SBMP for resource planning requires the interpretation and application of the principles and concepts to achieve the specific outcomes. Requirements are being developed and will be refined over 2009/2010 bushfire season. A key requirement is the development and adherence to longer-term bushfire management plans that incorporate the cyclic conduct of actions, such as prescribed burns, that occur over several year gaps.

PART SEVEN – Schedules



Schedule A: Audit reporting

Audit reports document compliance with this Plan. Specifically, they should:

- include an outline of the audit procedure, discussion of findings, conclusions about level of compliance with this Plan and recommendations for improvement;
- outline agreed management actions, that:
- address each recommendation made within an Audit Report;
- describe the implementation status of previously published agreed management actions, until such time as those actions have been finalised; and
- contain recommendations for improving the audit function where appropriate.

The ESA will maintain records of audit plans, audit reports, and other evidence that demonstrates action taken as a result of audit recommendations.

Schedule B: Classification and recommended standards for access

Ground access standards

Fire access includes a range of vehicular tracks, roads and walking tracks. These features reduce the response time to fires and make it safer to undertake bushfire suppression operations. Together, this increases the range of weather conditions under which bushfire containment and suppression are likely to succeed. In addition, vehicular tracks, roads and walking tracks provide potential control lines for containing bushfires and for conducting prescribed burns.

Classification

The classification of fire roads, tracks and trails (Table 1) is performance-based, to provide clear guidance to land managers and response agencies during incidents.

Table 2 identifies the requirements for the provision of passing opportunities on fire trails, and requirements for the provision of vehicle turnaround capability on dead end trails ("dead ends")

Table 1: Ground access standards

Classification	Performance standard	Nominal width and maximum grade	Surface	Nominal Horizontal curve radius	Nominal Vegetation maintenance
Walking track	To allow the safe passage of firefighters on foot	Generally these features will be less than 1 m in width	Natural surface, grass, sealed or gravel surface	Not Applicable	Vegetation maintained to allow single file walking
Light unit	To allow the safe passage of light units (4x4 Landcruiser or similar carrying a water tank of 400 – 600 litres)	Generally these features will have a width of 3 m, with a maximum grade of 20 degrees	Natural surface, grass, sealed or gravel surface	Corners of sufficient radius to make 3 point turns by light units unnecessary	Roadside vegetation maintained to allow unimpeded access by light units
Tanker	To allow the safe passage of tankers (4x4 trucks 8 – 12 tonnes carrying a tank of 2500 – 5000 litres)	Generally these features will have a width of 4 m, with a maximum grade of 15 degrees	Natural surface, grass, sealed or gravel surface	Corners of sufficient radius to make 3 point turns by tankers unnecessary	Roadside vegetation maintained to allow unimpeded access by tankers

Rigid float	To allow the safe passage of a truck including large CAFS Tankers and large rural tankers with a rigid body carrying a small (D3- or D4-sized) dozer	Generally these features will have the same characteristics as tanker roads but will have smaller rollovers, no splash creek crossings and no switchback corners.			
Articulated float	To allow the safe passage of articulated floats (truck and trailer carrying a D6-sized dozer	Generally these features will have a width of 5 m, a maximum grade of 12 degrees	Natural surface, grass, sealed or gravel surface	Corners of sufficient radius to make 3 point turns by a float unnecessary	Roadside vegetation maintained to allow unimpeded access by an articulated float

Table 2 – Nominal Requirements for passing and dead end fire trails

Passing opportunities	Utilise road verges and natural areas wherever possible to allow two vehicles to safely pass (in the case of light unit trails to allow two light units to pass, in the case of tanker trails to allow two tanker trails to pass). If there are no opportunities for vehicles to pass in a 250 m section, where terrain and ecological constraints allow, provide for widening of pavement, verges or the construction of passing bays. Where dormant trails are reopened during suppression operations, suitable passing areas should be constructed where terrain and ecological constraints allow to ensure vehicles can pass within 250 m section
Dead ends	Avoid as far as possible, and signpost where occur. Where dead ends exist, a turnaround of sufficient radius for the standard of the trail must be provided (e.g.: in the case of light unit trails the turnaround must allow a light unit to turn around on full lock). If there is insufficient space for such a turnaround due to the topography or other constraints, provision should be made to allow a maximum three-point turn or a "T" or "Y" shaped turnaround area provided. The dimensions of the "T" or "Y" shaped turn around must be appropriate for the type of vehicles that will use the trail. Turnarounds should be constructed when dormant trails are reconstructed for suppression operations, and temporary signage will be provided at the start of these trails.

In grassland areas or in rural areas or reserves, the mineral earth ground fire access network may be supplemented by slashed grass breaks or *ad hoc* access trails through properties or reserves. These breaks provide additional vehicle access during suppression operations, but do not provide as safe suppression areas as mineral earth roads. These slashed trails are generally not mapped and the locations may change over time.

Aerial access classification

Helipads are natural or constructed features on which helicopters may safely land. Helipads provide access for firefighters to walk to remote area fires, and locations from which helicopters

may operate during wildfire suppression and prescribed burning operations. Helipads are classified according to the size of the helicopter that may safely land on them, although this decision is ultimately the judgement of the pilot in charge of the aircraft. Indicative helipad standards are at Table 3.

In addition to identified helipads, remote area firefighters may access other areas by being winched in by helicopter, however this is slower and riskier than using a helipad. In some circumstances remote area firefighters may construct a temporary helipad closer to the bushfire to allow helicopters to safely land.

Table 3: Helipad standards

Classification	Nominal Description
Light	To allow the safe landing of light helicopters (e.g. Jet Ranger, Squirrel). These helipads will usually consist of a rock/grassed/mineral earth area 7x7 m, an area cleared of trees and tall shrubs for an additional 13 m and tall trees removed to ensure an approach angle of 40 degrees in one or more directions.
Medium (1)	To allow the safe landing of medium sized helicopters (e.g. BK117). These helipads will usually consist of a rock/grassed/mineral earth area 10x10 m, an area cleared of trees and tall shrubs for an additional 15 m and tall trees removed to ensure an approach angle of 40 degrees in one or more directions.
Medium (2)	To allow the safe landing of heavy or large sized helicopters (e.g. Bell 214). These helipads will usually consist of a rock/grassed/mineral earth area 15x15 m, an area cleared of trees and tall shrubs for an additional 20 m and tall trees removed to ensure an approach angle of 40 degrees in one or more directions.

Road sign standards

Sufficient roads and tracks will be signposted to allow navigation through the fire trail network (note that this may not require all roads and trails to be signposted). A systematic program of phasing in new signs on identified fire access will be implemented consistent with resource availability.

Schedule C: Fuel management standards for fire management zones

Table 1: Default Widths applied to determine the Ember Zone and Inner and Outer Asset Protection Zones³⁹

Vegetation type	Asset Interface Classification (as mapped)	Ember Zone Width (m)	Inner APZ Width (m)	Outer APZ Width (m)
Forest and shrubland	primary	400	30	target 300, min. 200
	secondary	200	20	100
	lee	50	10	0
Grass and woodland	primary	200	30	100
	secondary	50	20	0
	lee	50	10	0

Table 2: Fuel management standards for fire management zoning

Inner Asset Protection Zone (IAPZ)	Treatment Standards	
Default standards to be applied over at least 80% of the zones as mapped. Where default standards cannot be achieved, the responsible land manager may identify alternative treatments to meet the overall objectives for the zone. Any significant variation on the default standards shall be approved by the ESA.	Vegetation type	Fuel management standards
	Forest and shrubland	Maintained at an overall fuel hazard \leq low 3-5 m canopy separation or fuel gap to crown >3 m maintained
	Grass and open woodland	Grassland maintained at less than 200 mm height when grassland curing \geq 70%.

39. The maps of the Fire Management Zones included in this document as explanatory text have the default standards to the rural-urban interface for the Ember Zone, Inner and Outer Asset Protection Zones. Where default standards cannot be achieved, the responsible land manager or developer may identify alternative treatments to meet the overall objectives for the zone. Any significant variation on the default standards shall be approved by the ESA.

Outer Asset Protection Zone (OAPZ)	Treatment standards	
Default standards to be applied over at least 70% of the zones as mapped. Where default standards cannot be achieved, the responsible land manager may identify alternative treatments to meet the overall objectives for the zone. Any significant variation on the default standards shall be approved by the ESA.	Vegetation type	Fuel management standards
	Forest and shrubland	Overall fuel hazard ≤ moderate
	Grass and open woodland	Grassland fire hazard ≤ 35 when grassland curing ≥ 70%
Strategic Firefighting Advantage Zone	Treatment standards	
Default standards to be applied over at least 70% of the zones as mapped. Where default standards cannot be achieved, the responsible land manager may identify alternative treatments to meet the overall objectives for the zone. Any significant variation on the default standards shall be approved by the ESA.	Vegetation type	Fuel management standards
	Forest and shrubland	Overall fuel hazard ≤ high
	Grass and open Woodland	Grassland fire hazard ≤ 50 when grassland curing ≥ 70%.
	Plantations	Manage stands as crown fire-reduced areas with progressive treatment to attain the following standards: <ul style="list-style-type: none"> • immature stands (< 15 years old). Pruned to 2.0 m and thinned to 650 sph nominally at Year 8-10. Debris from thinning and pruning to be < 1 m high. In areas immediately adjacent to potential ignition sources or built assets consider mechanical crushing of thinning and pruning debris or burning as soon as practicable without damaging the residual stand. • mature stands (> 15 years old). Schedule harvesting to reduce contiguous areas of untreated slash during the fire season. Remove the outside row of trees (adjacent to fire trails) during first commercial thinning operation to improve access on fire trails.. • Maintain strategic fuel breaks through the maintenance of road pavements and verges, and edge pruning and thinning.
Identified arterial roads, rural roads and easements	Grassland fire hazard ≤ 35 when grassland curing ≥ 70%.	

Landscape Fire Management Zone	Treatment standards
	Standards not applied.
Agricultural Fire Management Zone	Treatment standards
	Requirements will be defined in Bushfire Operational Plans, developed through the Farm FireWise program.

Explanatory Notes

Asset Interface Classification (AIC)

The location and width of the Ember Zone and the Inner and Outer Asset Protection Zones in the SBMP Version Two is determined by the Asset Interface Classification. This classification of primary, secondary and lee edges along the rural-urban interface is based on the level of bushfire risk the interface is exposed to. It considers:

- the maximum fire size an asset may be subject to;
- the part of the fire (head, flank, back) an asset may be subject to recognising the major fire threat from the north and west; and
- the length of potential fire run.

Further discussion relating to the AIC and a map detailing the AIC for the urban area of the ACT can be found at in the **Supporting Information - Part One**.

Overall fuel hazard

Overall Fuel Hazard Assessment is currently undertaken consistent with the Territory and Municipal Services Fuel Assessment Methodology. This encompasses the processes identified in:

- Overall Fuel Hazard Guide (Department of Sustainability and Environment. Third Edition May 1999)
- Project Vesta – Fire in Dry Eucalypt Forests: Fuel Structure, Fuel Dynamics and fire behaviour. (JS Gould, WL McCaw, NP Cheney, PF Ellis, IK Knight, AL Sullivan, CSIRO / SCION 2007)

The process used for the assessment of bushfire fuels is included in the **Supporting Information - Part One**. Subsequent revisions or changes to methodologies may be applied as appropriate.

Grassland curing

Assessment of grassland curing is currently undertaken consistent with the Victorian Country Fire Authority **Grassland Curing Guide** (CFA, 1999). Subsequent revisions or changes to methodologies may be applied as appropriate.

Grassland Fuel Hazard

A combination of height and cover is currently used to determine triggers for short to medium term treatments when grasses are sufficiently cured to carry free burning fires (approximately 70% cured). Although significant variation exists, grass height (m) and cover (%) are related to fuel load and visibility, which are important factors affecting the ability to suppress grassfires. A score (the Grassland Fuel Hazard – see Table 4) was developed for the ACT and derived by multiplying these two factors provides a means of defining allowable fuel conditions in Outer Asset Protection and Strategic Firefighting Advantage Zones. Subsequent revisions or changes to methodologies may be applied as appropriate.

Table 4: Grassland Fuel Hazard

Height (m)	Cover %									
	10	20	30	40	50	60	70	80	90	100
0.1	1	2	3	4	5	6	7	8	9	10
0.2	2	4	6	8	10	12	14	16	18	20
0.3	3	6	9	12	15	18	21	24	27	30
0.4	4	8	12	16	20	24	28	32	36	40
0.5	5	10	15	20	25	30	35	40	45	50
0.6	6	12	18	24	30	36	42	48	54	60
0.7	7	14	21	28	35	42	49	56	63	70
0.8	8	16	24	32	40	48	56	64	72	80
0.9	9	18	27	36	45	54	63	72	81	90
1	10	20	30	40	50	60	70	80	90	100

Schedule D: Bushfire history records

The ESA will maintain records of:

- bushfire origins (where and when they originated);
- bushfire causes (their sources and causes, if known);
- location and area (hectares) burnt; and
- estimated annual fire damage; and other economic or ecological consequences.

Schedule E: Mapping components of the SBMP and supporting documents

Maps provide the critical means of identifying strategies and communicating information and concepts relating to fire management. A suite of maps has been prepared to support this Plan, and are identified below.

Asset Interface Classification

The Asset Interface Classification has been mapped identifying the location of:

- Primary Asset Interfaces;
- Secondary Asset Interfaces; and
- Lee Asset Interfaces.

This classification is provided in *Supporting Information - Part One* for explanatory purposes will be reviewed annually to reflect changes in the urban footprint of the ACT. Changes will be approved by the Commissioner ESA.

Bushfire ignition and spread

The modelled analysis of the probability of bushfires starting and spreading was undertaken as part of the planning process for the development of the SBMP, utilising existing models for fire behaviour, fuel accumulation and historical data of bushfire ignition and Fire Dangers Indices for the ACT. Detailed discussion of the process undertaken and mapping outputs for explanatory purposes can be found in *Supporting Information - Part One*.

The modelling may be revised as appropriate. Changes will be approved by the Commissioner ESA.

Assets at risk

Assets at risk from the effects of bushfire have been mapped and details:

- Property;
- Business and social Infrastructure;
- Critical infrastructure;
- Agricultural production;
- Biodiversity and threatened species;
- Cultural heritage; and
- Water Catchments

A current map of these assets is provided in **Supporting Information - Part One** for explanatory purposes, which may be reviewed and updated as appropriate. Changes will be approved by the Commissioner ESA.

Note: Some critical infrastructure, heritage and environmental assets may not be identified on publicly available maps, in consideration of legislative and security issues.

Overall fuel hazard maps

Overall fuel hazard has been estimated and included in the supporting documentation. Overall Fuel Hazard has been modelled and estimated for three time points, reflecting the increase of the fuel hazard over time without treatment. The time points are:

- 2009;
- 2014; and
- 2019.

Current maps of Overall Fuel Hazard are provided in **Supporting Information - Part One** for explanatory purposes. These maps may be reviewed updated as appropriate. Changes will be approved by the Commissioner ESA.

Fire management zoning

Maps of fire management zones have been prepared as supporting documents to detail the location of

- Ember Zones;
- Inner Asset Protection Zones;
- Outer Asset Protection Zones;
- Strategic Firefighting Advantage Zones;
- Agricultural Fire Management Zones; and
- Cooperative Management Areas

These maps are included for explanatory purposes in Part Three of the Plan and discussed in detail in **Supporting Information - Part Two**. The maps are approved by the Commissioner ESA. They will be reviewed annually and any amendments required may be approved by the Commissioner ESA.

Regional Fire Management Plans

Regional Fire Management Plans have been prepared as supporting documents to this Plan, based on the sixteen 1:25000 mapsheets that provide coverage of the ACT and adjacent areas of NSW. The plans detail the proposed fuel management, access and infrastructure activities to be undertaken over the next ten years. They are available for viewing on the ESA website.

Consultation in the preparation of Regional Fire Management Plans

When initially preparing Regional Fire Management Plans, the ESA and Government land managers undertook a process of community engagement and consultation. This included:

- neighbouring land managers, in particular areas where Government land managers and rural landholders are adjacent; this aimed to ensure each land manager considered the key fire management issues associated with their land and integrate fire management practices across property boundaries;
- specialists in flora and fauna;
- specialists in catchment and hydrological management, recognising the significant component of the ACT natural areas that forms Canberra's water catchment;
- non-government organisations and the wider community, in particular those with a specific interest in the management of natural areas;
- managers of National Land, such as the Department of Defence and National Capital Authority; and
- consideration of the capabilities of community members who may play a critical role in minimising the spread of bushfire into built-up areas and surrounding regions.

Review of Regional Fire Management Plans

Regional Fire Management Plans are dynamic documents. They will be reviewed annually to reflect changes that have occurred in the preceding year. This may include:

- completed fuel management and access activities that provide strategic advantages;
- unplanned bushfires that may provide strategic advantage;
- changes to the location or extent of assets, for example development of new urban areas;
- changes in agricultural practices; and
- new research results.

Any amendments required may be approved by the Commissioner ESA and may be notified to the public without prior consultation.

Spatial components of Regional Fire Management Plans

Regional Fire Management Plans should show the following information as appropriate:

- fuel management, including prescribed burning (in two year windows), grazing, physical removal, slashing, chemical treatment;
- return interval for prescribed burning, including planned burning exclusion areas;
- areas burnt since 2003;
- access, including existing trails to be maintained at their current standard, fire trails to be upgraded, and new fire trails planned to be constructed;

- existing fuel breaks planned to be upgraded, and new fire breaks planned to be constructed;
- existing water points to be maintained, existing water points planned to be upgraded, and new water points planned to be constructed;
- existing helipads to be maintained, existing helipads planned to be upgraded, and new helipads planned to be constructed; and
- map notes to explain features on the map.



**GOVERNMENT AGREED
RECOMMENDATIONS FROM McLEOD
REPORT AND DOOGAN CORONIAL
INQUIRIES INTO THE 2003 CANBERRA
BUSHFIRES**

IMPLEMENTATION REPORT

**PREPARED BY ACT BUSHFIRE COUNCIL
FOR THE ACT GOVERNMENT**

June 2009

TABLE OF CONTENTS

EXECUTIVE SUMMARY.....	2
ACRONYMS.....	3
INTRODUCTION.....	4
ACT BUSHFIRE COUNCIL.....	4
REVIEW.....	4
INFORMATION AND KNOWLEDGE SOURCES.....	5
RESULTS.....	6
Major Action(s) Required.....	6
Supplementary Action(s) Required.....	7
Extensions.....	7
RISK THEMES.....	9
RISK MANAGEMENT PLANS.....	11
IMPLEMENTATION PATHWAY.....	21
FRAMEWORK FOR EVALUATION.....	83

EXECUTIVE SUMMARY

The ACT Government requested the ACT Bushfire Council (Council) to undertake a review of the implementation of Government agreed recommendations from the McLeod Report and the Doogan Coronial Inquiry into the 2003 Canberra Bushfires and suggest processes for ongoing monitoring and maintenance of implementation.

The Council is pleased to provide this report "Government Agreed Recommendations from McLeod Report and Doogan Coronial Inquiry into the 2003 Canberra Bushfires - Implementation Report"

The review acknowledges that the majority of the recommendations of the two reports overlap to some degree.

This review has found that 108 of the 122 recommendations have been actioned.

The review finds that further material actions are required for 14 recommendations and supplementary actions are required for 22 recommendations to ensure full implementation.

To substantially address these outstanding matters the review has identified seven key actions:

- Finalisation of the Strategic Bushfire Management Plan (Version 2) (SBMP V2), incorporating Local Area Bushfire Plans;
- Implementation and maintenance of bushfire hazard reduction activities at landscape level, support by community, to deliver targeted reduction in the likely occurrence and impacts of bushfires;
- Implementation of formal and embedded protocols in ACT bushfire management structures to assess consequences of a bushfire potential to threaten ACT;
- Maintenance of required competencies, currencies and experience level for ACT fire fighters;
- Effectiveness of ACT bushfire education programs in generating desired change in depth of understanding and behaviour of individuals and community to mitigate impact of bushfires;
- Completion of governance arrangements recommended by Inquiries; and
- Operational procedures for use of fire retardants in ACT.

The Commissioner, ACT Emergency Services Agency, has endorsed this review and Council notes that the seven key areas are being actioned.

The Council has identified a risk based approach to further monitor and track progress and maintenance of recommendation implementation into the future. This process is outlined in the report.

As the Government considers this report the Council would like to indicate that it is well placed to undertake the ongoing risk monitoring and reporting as a significant function of its activities consistent with its functions under the *Emergencies Act 2004*.

Mr Kevin Jeffery
Chairman, ACT Bushfire Council
28th June 2009

ACRONYMS

ACTFB	ACT Fire Brigade
ACTPLA	ACT Planning and Land Authority
ACTSES	ACT State Emergency Service
ACTRFS	ACT Rural Fire Service
AFAC	Australasian Fire Authorities Council Inc
AIIMS	Australasian Inter-Service Incident Management System
BOM	Bureau of Meteorology
BOP	Bushfire Operational Plan
Council	ACT Bushfire Council
CFU	Community Fire Unit
DECC	Department of Environment and Climate Change (NSW)
ESA	ACT Emergency Services Agency
FMU	Fire Management Unit
GIS	Geographical Information System
ICS	Incident Control System
IMT	Incident Management Team
JACS	ACT Department of Justice and Community Safety
MAA	Mutual Aid Agreement
MAR	Major action(s) required (Refer to Table 1)
MOU	Memorandum of Understanding
NAFC	National Aviation Fire Centre Inc
NSWRFS	NSW Rural Fire Service
RAFT	Remote Area Fire fighting Teams
ROGS	Report on Government Services (
SAR	Supplementary action(s) required (Refer to Table 1)
SBMP	ACT Strategic Bushfire Management Plan
SEWS	Standard Emergency Warning Signal
SOPs	Standard Operating Procedures
TAMS	Department of Territory and Municipal Services

INTRODUCTION

Following the January 2003 Canberra Bushfires two major inquiries were conducted. The first Report, "*Inquiry into the Operational Response to the January 2003 Bushfire in ACT*" was presented to ACT Government by Mr Ron McLeod AM on 1st August 2003 (commonly referred to as McLeod Report) (http://www.cmd.act.gov.au/publications/archived_publications/mcleod_inquiry/report).

In December 2006 Coroner Doogan released her Inquiry into the 2003 Canberra Bushfires "*The Canberra Firestorm: Inquests and Inquiry into Four Deaths and Four Fires between 8 and 18 January 2003*" (commonly referred to as Doogan Coronial Inquiry) (<http://www.courts.act.gov.au/bushfireinquiry/bushfireinquiry.htm>).

The ACT Government formally responded to the recommendations made in the McLeod Report (containing 61 recommendations) and Doogan Coronial Inquiry (containing 73 recommendations). (http://www.cmd.act.gov.au/publications/archived_publications/mcleod_inquiry) (http://www.esa.act.gov.au/ESAWebsite/content_esa/bushfires/january_2003_bushfires.html).

The Council has been requested by the Government to provide a report on the status of implementation of the 122 Government agreed recommendations of McLeod Report and Doogan Coronial Recommendations and to provide advice on an approach to monitoring and maintaining reporting against the ongoing implementation.

ACT BUSHFIRE COUNCIL

The ACT Bushfire Council (Council), established under *Emergencies Act 2004*, Chapter 6 advises the Minister for Emergency Services and the Commissioner, Emergency Services Agency, about matters relating to bushfires.

REVIEW

The Chair of Council assisted by a steering committee of Council assisted by Agency staff and a consultant follow a staged review.

Stage 1:

- Gather all the Government agreed recommendations into a matrix;
- Include a preliminary risk assessment of the materiality/consequence (that being those recommendations that are less than completely implemented and have potential to impact on control, readiness, capability and co-ordination of bushfire response) of each recommendation if not implemented; and
- Develop a preliminary report for the Councils consideration and direction.

Stage 2:

- Develop, following advice from the Council enterprise risk themes; and
- Evaluate the quality of implementation by a comprehensive assessment to establish the current status including the strength of systems in place, or being developed to maintain implementation and identified gaps and on-going management requirements through comprehensive inquiry and analysis;

Stage 3:

- Document a suitable performance management system to enable ACT Government to undertake on-going monitoring, review, evaluation and reporting of the

- implementation of all of the Government approved recommendations including the appropriateness of actions undertaken; and
- Collate final report.

INFORMATION AND KNOWLEDGE SOURCES

The information and knowledge sources utilised included:

- Extensive discussions with staff of the Emergency Services Agency (ESA) and Department of Territory and Municipal Services (TAMS);
- Presentations and discussion with the Chair and members of Council;
- Comprehensive range of documentation of procedures and processes used by Government Agencies to manage prevention, mitigation, preparedness and response to bushfire in ACT;
- Discussions with ACT Rural Fire Services (ACTRFS) Brigade Captains and the President of Volunteer Brigades Association;
- McLeod Report and Doogan Coronial Inquiry;
- ACT Government responses to McLeod Report and Doogan Coronial Inquiry;
- Progress reports produced by ESA for Council on implementation of recommendations in McLeod Report and Doogan Coronial Inquiry; and
- Reports on other bushfires or bushfire management for ACT over the last 15 years.

RESULTS

The full individual results of the qualitative evaluation for each of the Government agreed recommendations is included for the McLeod Report in Appendix 1 Part A, and for the Doogan Coronial Inquiry in Appendix 1 Part B.

The McLeod Report, Recommendations 53 to 58, and Doogan Coronial Inquiry, Recommendations 1 to 7, and Recommendations 70 to 72, related to administrative arrangements for the ESA, organisational arrangements to give effect to recommendations and legislation related to emergency management. The Government has previously determined and implemented responses to these recommendations. While these recommendations are included for completeness no assessments are included as their implementation is outside the scope of this report.

Major Action(s) Required

Three of McLeod Report Government agreed recommendations and eleven of Doogan Coronial Inquiry Government agreed recommendations require major actions to be implemented by ACT Agencies to achieve the outcomes intended by recommendation and ACT Government response.

For the McLeod Report major actions required are to:

- Finalise Memorandum of Understanding (MOU)/Commissioners Guidelines between ESA and TAMS clarifying processes for involvement of TAMS staff in initial response on land managed by TAMS (Recommendation 32);
- Enhance levels and opportunities for operational exercising for Volunteers through increased involvement of Volunteers in hazard reduction activities. The assessment does not relate to the level of funding for training (Recommendation 36); and
- Evaluate and track the effectiveness of education programs in delivering targeted changes in behaviour and appropriate on-ground actions by individuals and community to bushfire threats (Recommendation 39).

For the Doogan Coronial Inquiry major actions required are to:

- Strengthen and embed within management processes a more rigorous and formalised risk management for incident management and prediction, and effective communication of knowledge to the community in a timely manner (Recommendation 9);
- Align the Incident Control System (ICS) training with individual training needs and competencies analysis to meet resourcing requirements for various levels of fire threats (Recommendation 15) and conduct of effective, safe large-scale back burning operations (Recommendation 30);
- Finalise SBMP(V2) - initially due for release in July 2005 (Recommendation 21);
- Finalise policy and operational procedure for use of fire retardants in the ACT (Recommendation 27);
- Clarify and communicate policy and operational arrangements for successfully completing approved levels of hazard reduction activities in the ACT, (Recommendation 32 to 34);
- Strengthen and embed within ACT fire management structures risk management processes for jointly assessing with NSW potential impact of bushfires impacting on each other's jurisdictions including scenario planning (Recommendation 47) and regular prediction updates of impacts of on-going fires (Recommendation 49); and
- Evaluate and track the effectiveness of education programs in having individuals and communities implement appropriate on-ground actions to address probable bushfire threats (Recommendation 52).

Supplementary Action(s) Required

Eight of the McLeod Report Government agreed recommendations and seventeen of the Doogan Coronial Inquiry Government agreed recommendations require supplementary action(s) to be implemented by ACT Agencies to achieve the outcomes intended by recommendations and the ACT Government response.

For the McLeod Report supplementary actions are required to:

- Enhance community understanding and associated decision making process to determine the probable consequences for various levels of on-ground hazard reduction activities within ACT (Recommendation 5);
- Implement more effective and timely processes for approval of individual fuel reduction burns (Recommendation 6);
- Enhance the competencies and capabilities of fire fighters and related emergency personnel to operate more effectively during operations associated with bushfire management (Recommendations 10, 20, 27);
- Finalise Rural Fire Control Manual (Recommendation 24);
- Align participation in training programs with training needs analysis to appropriately resource ESA and TAMS to meet its responsibilities (Recommendation 25); and
- Finalise and implement agreed arrangement for a more functional, longer term operations centre (Recommendation 19).

For the Doogan Coronial Inquiry supplementary actions are required to:

- Finalise decision making process associated with establishment of purpose built accommodation for ESA (Recommendation 8);
- Enhance quality and management use of risk management approaches in fire management functions (Recommendation 10);
- Develop and maintain up to date register of personnel with required competencies and experience to fill Incident Management Team (IMT) positions (Recommendations 12, 13, 14 and 41);
- Improve systems to assist fire fighters obtain timely and user friendly access to up to date fire management knowledge (Recommendation 16);
- Improve usefulness of mapping products produced by ESA and TAMS used for fire management purposes (Recommendation 18);
- Enhance the competencies and capabilities of fire fighters and other emergency personnel to operate more effectively during operations associated with bushfire management (Recommendations 20, 44 and 48);
- Finalise contract between ESA and TAMS to ensure that heavy equipment is supplied consistent with ESA requirements (Recommendation 28);
- Formalise various MOUs and Commissioner Guidelines to enhance governance and productivity of fire management (Recommendations 31, 35, 39 and 40); and
- Strengthen processes to improve alignment between targeted planning outcomes and delivered on-ground actions (Recommendation 38).

Extensions

For a number of recommendations where it has been recorded as action(s) conform, comments have been included on additional actions which Agencies may consider appropriate to gain further benefits above those delivered by the current level of implementation of the recommendation. The recommended action is often picked up in related recommendations.

For the McLeod Report extensions are required to:

- Check that Bushfire Operational Plans (BOP) are being submitted consistent with requirements of the *Emergencies Act 2004* (Recommendation 4);
 - Check that planned road access network detailed in SBMP (V1) was established in timely manner (Recommendation 7); and
 - Improve the content and usefulness of map products for use by the emergency services (Recommendation 9).
-

For the Doogan Coronial Inquiry extensions are required to:

- Ensure a formal training course for use of heavy bulldozers is finalised for delivery (Recommendation 29).

RISK THEMES

The material outstanding implementation requirements were consolidated into seven risk themes as follows.

Finalisation of SBMP (V2), incorporating Local Area Plans

Outstanding issues/opportunities (Recommendation D21)

- SBMP (V2), initially scheduled for release in July 2005, was promoted as addressing more “complex issues” not fully addressed in SBMP (V1) including hazard reduction program and provision of detailed advice on bushfire containment strategies; and
- SBMP (V2) and associated Local Area Plans provide opportunities for ACT Government to clarify and generate broader community acceptance to policy positions and on-ground actions to balance the diverse interests and multiple responses required to appropriately manage the risks associated with bushfire management. For instance determining the package of prevention (eg hazard reduction), preparedness (eg levels of operational competencies for volunteer; formal risk assessment of potential consequences of fires under various scenarios), response (eg role of land managers in managing initial response) and recovery actions required to minimise unintended consequences of bushfire.

Specification and implementation of community supported levels of hazard reduction across ACT

Outstanding issues/opportunities (Recommendation M5, D32, D33, D34)

- While SBMP (V1) details general bushfire hazard reduction strategies there is still divergent community views, understandings and motivations on appropriate techniques and extent of hazard reduction activities to manage bushfire risks at both individual and community level arising on ACT landscape;
- Regional Fire Management Plans (currently in development) and on-going BOPs are the mechanisms the land managers (including TAMS) use to deliver on-ground hazard reduction activities to balance fire and ecological management. However specific policy and processes - which have broad individual and community support - defining the levels and extent of hazard reduction activities to deliver and track targeted prevention outcomes for various levels of bushfire threats in the landscape have not been completed; and
- Opportunity to utilise analysis of probable fire consequences under various scenarios to enhance the knowledge and understanding of the complex trade-offs which must be managed to balance livelihood and ecological outcomes for residents of ACT associated with bushfire management.

Formal Risk assessment of bushfire potential

Outstanding issues/opportunities (Recommendation D9, D32, D33, D34)

- No formal process for evaluating and reporting the likely consequences of bushfires under various weather scenarios and across jurisdictions;
- Opportunity to enhance competencies and organisational credibility by evaluating and reporting on likely bushfire potential under expected and worst case conditions, ie “what if” stress testing; and
- Provides a stronger response and justification to community for Government not fully implementing Doogan Coronial Inquiry recommendation (24) to attempt to suppress all fires immediately on detection.

Enhancement of competencies and experiences of fire fighters

Outstanding issues/opportunities

- Lack of accredited training opportunities for heavy equipment operators (D25);
- Lack of opportunities for operations exercising by volunteers (M36);
- Alignment of ICS training, individual training needs analysis and required resourcing for various bushfire management scenarios and management of large backburns (D15, D30); finalisation of training facility complex (M27);
- Significant opportunities to enhance volunteer operational competencies [for example in Australasian Inter-service Incident Management System (AIIIMS) process and use of communication equipment] by implementing more certain and timely hazard reduction programs across ACT (D20, M36); and
- ACTRFS to implement a broader program for potential members of IMTs to gain experience in observing/participating in IMT operating consistent with AIIIMS requirements in adjoining jurisdictions (D11, M20).

Effectiveness of community education programs in generating desired behavioural changes

Outstanding issues/opportunities

- No ACT specific tracking of effectiveness of community education program on changing individual and community behaviour in relation to management of bushfire risks (M39, D52);
- Opportunity to identify and track how Territorians perceive risk to themselves and community; what factors prompt appropriate on-ground actions and how actions fit into their desired lifestyle and community safety issues; and
- Opportunity to use evidence to significantly enhance effectiveness of community education programs to generate required bushfire management actions by individuals and community.

Governance

Outstanding issues/opportunities

- Finalise mapping protocols with TAMS (D18);
- Finalise negotiations with Canberra Airport on joint fire response arrangements (D31);
- Finalise MOU/Commissioner Guideline with TAMS regarding use of retardant during bushfire operations (D27);
- Finalise MOU with TAMS on protocols for initial response on land TAMS manages (D39, D40, M31, M32);
- Finalise authorities and protocols for issue of permits (D35, M6);
- Establish and maintain register of qualified and experienced people supported by training needs analysis, to allow staffing of IMTs (D13); and
- Strengthen the tracking and reporting on the actual completion of on-ground activities consistent with requirements of content of approved plans (M12, D38).

Completion of operational procedure for the use of fire retardants in ACT

Outstanding issues/opportunities (Recommendation D 27):

- ACT resourcing equipment to mix and deliver fire retardant is scheduled to be available for 2009/2010 fire season;
- Operational procedures for use of fire retardant within ACT landscape have not been finalised; and
- Lack of approved operational procedures could impact on the effectiveness of strategies and operational tactics used to management bushfire in ACT.

RISK MANAGEMENT PLANS

Based on the Australian risk management standards Council has prepared a “risk on a page approach” for the seven themes to identify, track and report on the major actions required for Agencies to implement in the short term.

Figure 5 (a). ACT BUSHFIRE COUNCIL - RISK MANAGEMENT PLANS

A. RISK REGISTER REFERENCE No: 0901			
B. Risks Theme Description Failure to finalise SBMP (V2) incorporating Sub-regional Bushfire Plans within targeted timelines			
C. Related Inquiry Recommendations: D 21		D. RISK OWNER: ESA Corporate	
		E. Risk Assessment: Senior Management Team (SMT)	
F. Inherent Risk Assessment: (Without the effect of controls)			
i) <u>Current Risks/Consider Points:</u>			
<ul style="list-style-type: none"> • Loss of credibility and confidence in ACT Government, ESA and ACT RFS through delays in completing SBMP (V2) and Sub-regional Plans. • Delays in the development, implementation and communication of more comprehensive approaches to managing risks generated from unplanned bushfire. • Breach of Section 80 of Emergencies Act 2004 if not reviewed by January 2010. 			
ii) <u>New and Emerging Risks:</u>			
<ul style="list-style-type: none"> • Impacts of climate change on risks associated with bushfire threats. • Expanding urban development of Canberra. • Increased risks of additional litigation associated with bushfire management. • Findings of Royal Commission into 2009 Victorian Bushfires. • Increased Work Safe requirements on bushfire fighting 			
iii) <u>Inherent Risk Ranking</u> = Very High (8) Likelihood = Likely (4); Consequences = Major (4)			
G. <u>Effectiveness of Controls Assessment:</u> (With the effect of controls)			
i) <u>Existing Controls/Mitigating Practices:</u>			
<ul style="list-style-type: none"> • ESA Corporate commitment to release Draft of SBMP (V2) by July 2009 for public comment. • ESA/TAMS commitment to release Draft Sub-regional Bushfire plans covering ACT in June 2009 for public comment. 			
ii) <u>Additional Treatment and Controls being Implemented:</u>			
<ul style="list-style-type: none"> • Timetable for completion of SBMP (V2) and Sub-regional plans being implemented consistent with approved timelines. 			
iii) <u>Control Effectiveness Ranking:</u> Current = Adequate (4) Previous = NA			
H. <u>Residual Risk Rating:</u> Current = Continuous Review (C.R) Previous = NA (Month)			
I. Risk Treatment Plan:			
<u>Specific Actions</u>		<u>Responsibility</u>	<u>Due Date</u>
Preparation, approval, implementation and communication of project management plan to approve SBMP (V2) and associated Sub-regional Bushfire plans by 15 th September 2009, incorporating presentation of Draft SBMP (V2) for public comment on 10 th July 2009 and Sub-region Bushfire Management plan by 10 th June 2009.		ESA Corporate	15/4/09
			Works in progress
Approved by:TBC.....		Date:	
Position:TBC.....			

Figure 5 (b).

ACT BUSHFIRE COUNCIL - RISK MANAGEMENT PLANS

A. RISK REGISTER REFERENCE No: 0902			
B. Risks Theme Description Failure to implement and maintain bushfire hazard reduction activities at a landscape level, supported by the community, to deliver targeted reductions in the likely occurrence and impacts of bushfires.			
C. Related Inquiry Recommendations: M5; D32; D33; D34, D36		D. RISK OWNER: ESA Corporate	
		E. Risk Assessment: SMT	
F. Inherent Risk Assessment: (Without the effect of controls)			
i) <u>Current Risks/Consider Points:</u>			
<ul style="list-style-type: none"> Lack of credible rationale and targets in SBMP (V2) for different intensities of hazard reduction will result in failure to mitigate adverse impacts of various levels of bushfire threat. Lack of specified levels, and failure to achieve and maintain those regular and strategic levels of Hazard Reduction activity across the majority of the forested landscape will result in failure to meet the inquiries' recommendations.. Failure to complete and implement Sub-regional plans will result in lack of specified levels of hazard reduction activities across government managed lands. Lack of evidence to check efficacy of bushfire education programs in improving individual and community understandings of actions and generating the desired behavioural changes to reduce impacts of unplanned bushfires. Divergent community views, understanding and motivation on appropriate techniques and desirable extent of Hazard Reduction activities within ACT forested landscapes to manage bushfire risks for individual and community assets as well as ecological and water catchment values. The complex issues surrounding hazard reduction activities make it difficult to build community support and understanding for its potential benefits in reducing the impacts of unplanned fires. 			
ii) <u>New and Emerging Risks:</u>			
<ul style="list-style-type: none"> Impact of climate change on bushfire frequency, intensity and duration. Heightened expectancy by community to potential impacts of bushfire. Heightened expectations by community resulting from recent Victorian bushfires. Complexity of bureaucracy in obtaining approval to undertake hazard reduction reducing the incentive to implement hazard reduction activities as easier not to do hazard reduction. 			
iii) <u>Inherent Risk Ranking</u> = Very High (9); Likelihood = Likely (4); Consequences = Extreme (5)			
G. <u>Effectiveness of Controls Assessment:</u> (With the effect of controls)			
i) <u>Existing Controls/Mitigating Practices:</u>			
<ul style="list-style-type: none"> Improved bushfire management knowledge input into drafting of SBMP (V2) and applied through Sub-regional Bushfire plans. Finalisation of Draft SBMP (V2) and Sub-regional plans by May 2009 for public comment. 			
ii) <u>Additional Treatment and Controls being Implemented:</u>			
<ul style="list-style-type: none"> Establishment of agreed rolling three year targets for prescribed burning in forested areas. Greater involvement of brigades in Hazard Reduction activities. Monitor and review of effectiveness of bushfire education programs in enhancing understanding and changes in behaviour to mitigate impacts of bushfires. 			
iii) <u>Control Effectiveness Ranking:</u> Current = Inadequate (6) Previous = NA			
H. <u>Residual Risk Rating:</u> Current = Active Management (AM) Previous = NA (Month)			
I. Risk Treatment Plan:			
<u>Specific Actions</u>		<u>Responsibility</u>	<u>Due Date</u>
The draft SBMP (V2) and associated Sub-regional Bushfire plans to be released for public comment detail the probable changes in risks to ACT assets and people from specific and different levels of hazard reduction activities (in association with other mitigation activities) to reduce the occurrence & impacts of bushfire within ACT landscape.		ESA Corporate	June 2009
			Works in Progress
Approved by:		Date:	
Position:			

Figure 5 (c).

ACT BUSHFIRE COUNCIL - RISK MANAGEMENT PLANS

A. RISK REGISTER REFERENCE No: 0903			
B. Risks Theme Description Failure to implement formal and embedded protocols in ACT bushfire management structures to assess consequences of potential bushfire threats.			
C. Related Inquiry Recommendations: D9; D24; D32; D33; D34.		D. RISK OWNER: RFS	
		E. Risk Assessment: SMT	
F. Inherent Risk Assessment: (Without the effect of controls)			
i) <u>Current Risks/Consider Points:</u>			
<ul style="list-style-type: none"> No formal and embedded processes for evaluating and reporting the likely consequences of potential bushfires under various weather scenarios and across jurisdictions. Provide a justification to community for Government not fully implementing recommendation D24 to adopt a policy and practice of suppressing all bushfires immediately on detection in remote areas. Maintain policy of vigorous sustained response to remote fires. 			
ii) <u>New and Emerging Risks:</u>			
<ul style="list-style-type: none"> Heightened expectations by community on potential impacts of bushfires following recent Victorian bushfires. Opportunity to enhance competencies and organisational creditability by communicating to community likely bushfire impacts under expected and worst case weather conditions. 			
iii) <u>Inherent Risk Ranking</u> = High (7) Likelihood = Likely (4); Consequences = Moderate (3)			
G. <u>Effectiveness of Controls Assessment:</u> (With the effect of controls)			
i) <u>Existing Controls/Mitigating Practices:</u>			
<ul style="list-style-type: none"> Inclusion of risk management practices in Pre-season Checklist and embedding process within ICS for on-going risk assessment of the potential consequences for on-going bushfire. Additional access to aerial fire-fighting resources and remote area fire-fighter teams. 			
ii) <u>Additional Treatment and Controls being Implemented:</u>			
<ul style="list-style-type: none"> Requirement for Type 3 Incident Management Teams to assess risk and consequences of fire suppression strategy succeeding and to include fall back options and community notifications. Use of fire behaviour specialists and advanced computer based system to model "what if" scenarios for use by managers. 			
iii) <u>Control Effectiveness Ranking:</u> Current = Inadequate (5) Previous = NA			
H. <u>Residual Risk Rating:</u> Current = Continuous Review (CR) Previous = NA (Month)			
I. Risk Treatment Plan:			
<u>Specific Actions</u>		<u>Responsibility</u>	<u>Due Date</u>
<ul style="list-style-type: none"> Peer review of computer bushfire management model 		ESA Corporate	September 2009
<ul style="list-style-type: none"> Testing of effectiveness of risk based approach to scenario development. 		ESA Corporate	July 2009
<ul style="list-style-type: none"> Protocols for duty officer and/or officer within pre-formed IMT to undertake and communicate potential consequences of on-going bushfires to be developed. 		ESA Corporate	July 2009
Approved by:		Date:	
Position:			

Figure 5 (d).

ACT BUSHFIRE COUNCIL - RISK MANAGEMENT PLANS

A. RISK REGISTER REFERENCE No: 0904			
B. Risks Theme Description Failure to maintain required competencies, currencies and experience levels of ACT fire fighters.			
C. Related Inquiry Recommendations: M20, M27, M36; D11, D15, D25, D30, D36		D. RISK OWNER: RFS	
		E. Risk Assessment: SMT	
F. Inherent Risk Assessment: (Without the effect of controls) i) <u>Current Risks/Consider Points:</u> <ul style="list-style-type: none"> Lack of opportunities for fire fighters to participate and gain experience and competency in medium and large scale bushfire operations. Lack of accredited training programs for heavy equipment operators and supervisors. Lack of systems which link training, currencies and competencies, with training needs analysis for various bushfire management scenarios and management of large Hazard Reduction activities. Lack of consistent application of AIIIMS for all incidents. 			
ii) <u>New and Emerging Risks:</u> <ul style="list-style-type: none"> Lack of recent opportunities within ACT to gain experience in large fire management. Increasing community expectations of competencies and availability of volunteer fire fighters. More frequent, intense and longer duration bushfires placing increased requirements for volunteer resources and greater likelihood of Type 3 incidents occurring. Challenge in attracting and retraining volunteers over time during periods of limited bushfire in ACT. 			
iii) <u>Inherent Risk Ranking</u> = Very High (9); Likelihood = Almost certain (5); Consequences = Major (4)			
G. <u>Effectiveness of Controls Assessment:</u> (With the effect of controls) i) <u>Existing Controls/Mitigating Practices:</u> <ul style="list-style-type: none"> Adequate funding for training. Deployments of ACT fire-fighters to interstate and overseas fires. The secondment of interstate resources including specialist services to complement ACT resources in managing bushfire. 			
ii) <u>Additional Treatment and Controls being Implemented:</u> <ul style="list-style-type: none"> Additional role specific training for personnel performing key IMT roles at Type 2 and Type 3 incidents. Increased deployment of RFS IMT personnel to interstate fires. Accredited training program for heavy plant operators being developed. 			
iii) <u>Control Effectiveness Ranking:</u> Current = Inadequate (4); Previous = NA			
H. <u>Residual Risk Rating:</u> Current = Continuous Review; Previous = NA (Month)			
I. Risk Treatment Plan:			
	<u>Specific Actions</u>	<u>Responsibility</u>	<u>Due Date</u>
	• Increase opportunities for volunteer fire fighters to develop and maintain operational competencies.	RFS	August 2009
	• Maintain register of staff with required competencies and currencies to staff IMTs.	RFS	July 2009
	• Completion of training needs analysis for ACT organisations to resource various levels of bushfire threats and hazard reduction.	ESA	July 2009
Approved by:		Date:	
Position:			

Figure 5 (e).

ACT BUSHFIRE COUNCIL - RISK MANAGEMENT PLANS

A. RISK REGISTER REFERENCE No: 0905			
B. Risks Theme Description Failure of bushfire education programs to generate desired changes in depth of understanding and behaviour by individuals and community to mitigate impacts of bushfires.			
C. Related Inquiry Recommendations: M 39; D 52		D. RISK OWNER: ESA Corporate	
		E. Risk Assessment: SMT	
F. Inherent Risk Assessment: (Without the effect of controls)			
i) <u>Current Risks/Consider Points:</u>			
<ul style="list-style-type: none"> • No tracking of effectiveness of community education programs on changing individual and community behaviour in relation to management of bushfire risk. • Failure of individuals and community to understand and manage bushfire risks in the context of lifestyles, and individual behaviour and community safety issues can generate major negative consequences for ecological, physical and social assets. 			
ii) <u>New and Emerging Risks:</u>			
<ul style="list-style-type: none"> • Community questioning of effectiveness of community education programs arising from recent Victorian fires. • Evidence that many bushfire victims do not adequately understand existing bushfire education messages in terms of personal responses. 			
iii) <u>Inherent Risk Ranking</u> = Extreme (9) Likelihood = Likely (4) Consequences = Catastrophic (5)			
G. <u>Effectiveness of Controls Assessment:</u> (With the effect of controls)			
i) <u>Existing Controls/Mitigating Practices:</u>			
<ul style="list-style-type: none"> • Comprehensive community education program implemented by ESA. 			
ii) <u>Additional Treatment and Controls being Implemented:</u>			
<ul style="list-style-type: none"> • Participate in Bushfire CRC community education and behaviour research. 			
iii) <u>Control Effectiveness Ranking:</u> Current = Inadequate (7) Previous = NA			
H. <u>Residual Risk Rating:</u> Current = Active Management (AM); Previous = NA (Month)			
I. Risk Treatment Plan:			
<u>Specific Actions</u>	<u>Responsibility</u>	<u>Due Date</u>	<u>Status</u>
<ul style="list-style-type: none"> • Review effectiveness of community education programs in generating desired behavioural changes by individuals and community. 	ESA Corporate	Decision to conduct review by 10 th May 2009	Not started
Approved by:		Date:	
Position:			

Figure 5 (f).

ACT BUSHFIRE COUNCIL - RISK MANAGEMENT PLANS

A. RISK REGISTER REFERENCE No: 0906			
B. Risks Theme Description Failure to finalise identified governance arrangements			
C. Related Inquiry Recommendations: M6, M12, M31, M32, M35, D13, D18, D27, D31, D38, D39, D40	D. RISK OWNER: ESA Corporate		
	E. Risk Assessment: SMT		
F. Inherent Risk Assessment: (Without the effect of controls)			
i) <u>Current Risks/Consider Points:</u>			
<ul style="list-style-type: none"> Failure to finalise MOUs/Commissioner guidelines as recommended by Inquiries' recommendations and agreed by ACT Government in areas such as mapping protocols, joint fire response arrangements with Canberra Airport, use of retardants, initial response on TAMS managed lands, issue of permits, up to date register of available fire fighters with required competencies and timely implementation of approved planning actions. 			
ii) <u>New and Emerging Risks:</u>			
<ul style="list-style-type: none"> Increasing potential for litigation if agreed governance arrangements are not implemented. Generation of uncertainties in responding to bushfire incidents. 			
iii) <u>Inherent Risk Ranking</u> = High (7) Likelihood = Possible (3) Consequences = Major (4)			
G. <u>Effectiveness of Controls Assessment:</u> (With the effect of controls)			
i) <u>Existing Controls/Mitigating Practices:</u>			
<ul style="list-style-type: none"> Regular reporting on actions being implemented for Inquiries' recommendations. Senior management awareness that cited governance gaps require attention. 			
ii) <u>Additional Treatment and Controls being Implemented:</u>			
<ul style="list-style-type: none"> Development of governance gaps project management plan. 			
iii) <u>Control Effectiveness Ranking:</u> Current = Inadequate (7); Previous = NA			
H. <u>Residual Risk Rating:</u> Current = Active Management (AM) Previous = NA (Month)			
I. Risk Treatment Plan:			
<u>Specific Actions</u>	<u>Responsibility</u>	<u>Due Date</u>	<u>Status</u>
<ul style="list-style-type: none"> Agreed project management plan be implemented to finalise governance gaps arising from Inquiries' recommendations. 	ESA Corporate	May 2009	Works in progress
Approved by:		Date:	
Position:			

Figure 5 (g).

ACT BUSHFIRE COUNCIL - RISK MANAGEMENT PLANS

A. RISK REGISTER REFERENCE No: 0907			
B. Risks Theme Description Failure to finalise operational procedures for use of fire retardant in ACT.			
C. Related Inquiry Recommendations: D 27	D. RISK OWNER: RFS/TAMS E. Risk Assessment: SMT		
F. Inherent Risk Assessment: (Without the effect of controls) i) <u>Current Risks/Consider Points:</u> <ul style="list-style-type: none"> No approved protocol for use of fire retardant in ACT landscape. Reduces the tools available to IMT to manage remote bushfires particularly during initial response phase of bushfire suppression. ii) <u>New and Emerging Risks:</u> <ul style="list-style-type: none"> Increasing community expectations that initial response to management of remote bushfires will deliver effective suppression. iii) <u>Inherent Risk Ranking</u> = Very high (8) Likelihood = Likely (4); Consequences = Major (4)			
G. <u>Effectiveness of Controls Assessment:</u> (With the effect of controls) i) <u>Existing Controls/Mitigating Practices:</u> <ul style="list-style-type: none"> Equipment and staff available to mix and deliver retardant. ii) <u>Additional Treatment and Controls being Implemented:</u> iii) <u>Control Effectiveness Ranking:</u> Current = Inadequate (7); Previous = NA			
H. <u>Residual Risk Rating:</u> Current = Active Management (AM) Previous = NA (Month)			
I. Risk Treatment Plan:			
<u>Specific Actions</u>	<u>Responsibility</u>	<u>Due Date</u>	<u>Status</u>
<ul style="list-style-type: none"> Finalise and implement protocol for use of fire retardants in ACT landscapes. 	TAMS/ESA Corporate	May 2009	In progress
Approved by:		Date:	
Position:			

RISK REGISTER

The initial Risk Register for the seven priority risk management themes appears in Figure below.

Risk Register (as at 15/3/2009) for Seven Priority Risk Themes arising from Judgement on Quality of Implementation of Inquiries' Recommendations *

Refer. ID	Risk Theme/ Description	Inherent Risk Rating		Control Rating		Residual Rating	
						Current	Previous
0901	Failure to finalise SBMP (V2) incorporating Sub-regional Bushfire Plans within targeted timelines	VH	9	G	4	CR	NA
0902	Failure to implement and maintain bushfire hazard reduction activities at a landscape level, supported by community, to deliver targeted reduction in the likely occurrence and impacts of bushfire	VH	9	IA	6	AM	NA
0903	Failure to implement formal and embedded protocols in bushfire management structures to assess the consequences of a bushfire potential to threaten ACT	H	7	IA	5	CR	NA
0904	Failure to maintain required competencies, currencies and experience levels for ACT fire fighters	VH	9	IA	4	CR	NA
0905	Failure of bushfire education programs to generate desired changes in depth of understanding and behaviour of individuals and community to mitigate impact of bushfires	VH	9	IA	7	AM	NA
0906	Failure to finalise governance arrangements	H	7	IA	7	AM	NA
0907	Failure to finalise operational procedures for use of fire retardant in ACT	VH	8	IA	7	AM	NA

* Refer to Table 1 for explanation of coding.

Table 1. Legend used in compiling Risk Register (Figure 1) *

INHERENT RISK RATINGS		RESIDUAL RISK RATINGS	
E	Extreme inherent risk	AM	Active management / (High or Significant inherent risk where controls have been assessed as inadequate)
H	High inherent risk	AMC	Active management but lower residual risk. Requires periodic review.
M	Medium inherent risk	CR	Continuous Review (High or Significant inherent risk where controls have been assessed as adequate)
L	Low inherent risk	PR	Periodic Review (Control is not strong but risk impact is not high. Options to improve control or monitor risk impact to ensure it does not increase over time)
		NC	No major concern (Risks where systems and processes managing the risks are adequate and subject to minimal monitoring)
CONTROL RISK RATINGS			
A	Adequate control environment - control effectiveness assessed as either excellent or good	IN	Inadequate control environment - control effectiveness assessed as either satisfactory, poor or unsatisfactory

IMPLEMENTATION PATHWAY

1. The ACT Bushfire Council obtain the support of Commissioner ESA and recommendation of the Minister to implement and maintain the risk management framework to monitor and report on the quality of implementation of recommendations.
2. The Deputy Chief Officer ACTRFS, provide secretariat to ACT Bushfire Council and be responsible for maintaining “risk-on-a-page” for priority risk themes determined by ACT Bushfire Council and maintaining the Risk Register.
3. The ACT Bushfire Council provide an annual report on implementation as part its preseason report to the Minister.

**Key to Part A and B
Appendix 1.**

Action(s) Conform (AC)	The actions, processes and/or system implemented by ACT Agencies to implement the Inquiries' recommendations are judged as fulfilling the intent and/or requirements of the Inquiries' recommendations and are consistent with the ACT Government's response to recommendations.
Supplementary Action(s) Required (SAR)	The actions, process and/or systems employed by ACT Agencies relevant organisations to implement Inquiries' recommendations are judged as partly meeting the intent and/or requirements of Inquiries' recommendations and ACT Government's response to recommendations. Supplementary actions are required to be implemented by ACT Agencies to achieve the intended outcomes and/or address slippage in timing in completing specified actions. To achieve a judgement of SAR implementation actions to deliver the intent of recommendations must be substantially implemented as at December 2008. Generally a judgement of SAR indicates significant works-in-progress.
Major Action(s) Required (MAR)	The actions, processes and/or systems employed by ACT agencies to implement Inquiries' recommendations are judged as requiring significant enhancement to meet the intent of Inquiries' recommendations and ACT Government's response to recommendations. Failure to implement additional actions will, with high likelihood, "have potential to impact on control, readiness, capability and co-ordination of bushfire response".

APPENDIX 1:

PART A: ASSURANCE CHECK ON QUALITY OF IMPLEMENTATION FOR RECOMMENDATIONS FROM McLEOD INQUIRY

NO.	RECOMMENDATIONS/ STATEMENT	ACT GOVT RESPONSE	RELATED RECOMMEND'NS IN DOOGAN REPORT NO(s).	IMPLEMENTATION ACTIONS	IMPLEMENTATION
1	<p>Fuel Management The ACT Bushfire Fuel Management Plan should be reviewed in the light of changed circumstances since the January 2003 fires. Increased emphasis should be given to controlled burning as a fuel-reduction strategy</p>	Agreed	32	<p>SBMP (V1) - released in January 2005 and replacing the ACT Bushfire Management Plan - specifies a range of fuel management techniques, including prescribed burning, and their areas of indicative application. The combination of fuel management activities applied to specific areas is managed through processes associated with development and monitoring of BOPs.</p> <p>The Draft of SBMP (2), currently being prepared, incorporates - with the purpose of "achieving balanced, effective and efficient bushfire management" - the core principle of "planned fire regimes will be applied in natural areas to protect built, natural and rural production assets will be applied to manage bushfire fuels in natural areas to protect built, natural and rural production assets".</p> <p>In addition, Sub-regional plans for bushfire management, incorporating detailed fuel reduction actions, are currently being developed for ACT.</p>	Actions conform

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2	The Victorian Code of Practice for Fire Management on Public Land should be used as a 'best practice' guide when revising the ACT Bushfire Fuel Management Plan and a similar set of priorities should be developed in relation to zones identified in the Plan.	Agreed	33, 34, 35, 36	The processes detailed in Victorian "Code of Practice for Fire Management on Public Land" were used to guide the development of SBMP (V1).	Actions conform.
3	An addendum to the existing 2002-04 Bushfire Fuel Management Plan needs to be prepared prior to the 2003-04 bushfire season, noting the extensive consultation process required under the <i>Bushfire Act 1936</i> . This addendum should focus on the area unaffected by the 2003 fires and the buffer zone surrounding Canberra's exposed northern and western perimeter. The addendum should be submitted to government for approval.	Agreed		An Addendum to 2002-2004 Bushfire Fuel Management Plan was prepared prior to 2003-2004 fire season. The Addendum focused on areas unaffected by 2003 fire and buffer zones on Canberra northern and western perimeters. The Addendum (" <i>The Increased Fuel Reduction Works Program 2003-2004</i> ") was approved by Government and implemented.	Actions conform.
4	An annual audit of achievements under the Bushfire Fuel Management Plan should be conducted, with the results reported to government	Agreed		Under SBMP processes the Bushfire Fuel Management Plan has been replaced by BOPs developed to be consistent with SBMP (V1).	Actions conform SAR to check that all organisations managing land in

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	and published.			The ACTRFS process requires annual audits of BOPs (100% desktop followed up by 10% field audit). Results reported to Government and published in ESA Annual Reports	ACT submit BOPs consistent with requirements of <i>Emergencies Act 2004</i> . Responsibility: ACTRFS
5	A public information strategy should be prepared to educate the ACT community about the beneficial and protective aspects of fuel-reduction burning and about the degree of inconvenience that will inevitably result for ACT residents during such burning. This should accompany the public launch of the revised Bushfire Management Plan.	Agreed	51, 52, 53	<p>Broad range of publications and programs to increase community awareness of prevention and mitigation actions for bushfires including role of fuel reduction. No specific information strategy to educate ACT community about beneficial and protective aspects of fuel-reduction burning has been implemented.</p> <p>It is noted that TAMs as part of operational requirements when conducting hazard reduction activities notifies communities of potential inconvenience through targeted consultation.</p> <p>As noted previously the draft of SBMP (V2) explicitly recognises the trade-offs associated with use of planned fire regimes to manage bushfire fuels.</p>	SAR to educate the ACT community on the impacts and trade-offs associated with hazard reduction burning in addressing tradeoffs to individual and community safety for different levels of bushfire threat, incorporating beneficial and protective aspects. Responsibility: ESA
6	The approval process for individual fuel-reduction burns	Agreed	35, 36, 37	Simplified approval process for fuel reduction burns are being developed by	SAR to approve and effectively

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	that are consistent with the government-approved Bushfire Fuel Management Plan should be simplified so as to enable the limited time when the weather conditions are right to be used to maximum advantage.			ESA but have not been finalised.	implement more timely processes for issue of permits for hazard reduction burns. Responsibility: ACTRFS
7	Fire Access Clear policy guidelines should be developed and implemented to support the identification of a strategic network of fire tracks and trails and their establishment and maintenance. An audit process should be instituted to ensure that the policy's effectiveness is regularly monitored.	Agreed	38	SBMP (V1) details policies and strategies to be implemented to establish and maintain strategic network of fire tracks and trails. The ACTRFS's " <i>Guidelines for Bushfire Access in ACT</i> " provide detailed policy and standards for fire access. Annual BOPs, incorporating resource availability and risk assessments, detail annual activities associated with maintenance and establishment of fire trails. During interviews a number of personnel raised the perceived disjointedness between planning and timely on-ground delivery of planned actions. Examples cited during interviews include the upgrading of Mt Franklin Road to float standard and construction of new strategic trails identified in Map 9 of SBMP (V1).	Actions conform SAR to ensure that planned road network is established in timely manner and progress tracked and explained in audit processes. Responsibility: ESA

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8	A risk assessment should be conducted by ESB to assist in determining access needs across the ACT, linked to interstate requirements, with advice being provided to land managers.	Agreed	38	In addition to comments under Rec. 7 the ESA - through processes to develop SBMP (V1) and supported by ACTRFS's " <i>Guidelines for Bushfire Access in ACT</i> " has developed a fire access network that "balances a risk based assessment of fire access requirements with the protection of biodiversity, soils, aquatic, catchment, cultural and aesthetic values" to support fire suppression and fuel management. Principles are based on access needs categorised into set of classes, ranging from high speed access for heavy plant through to dormant trails that can be quickly cleared up in an emergency. The number and spacing of trails reflects operational and safety needs (risks) and protection of ecological landscapes. Planning for fire access trail considers links with interstate trails.	Actions conform.
9	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 produces in both	Agreed	18, 19	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. Some evidence from interviews that current map products not effective for	Actions conform. SAR to standardise and distribute map

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	printed and data form.			operational purposes. 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.	products which more fully meet requirements of users. Responsibility: ESA
10	Greater opportunity should be provided for all senior fire fighters to become more familiar with remote areas of the ACT.	Agreed		Since 2003 familiarisation inspections by key personnel of ACTRFS, agencies and volunteer brigades conducted. Inspections appear to be opportunistically organised.	SAR to ensure that familiarisation tours are conducted on routine basis. Responsibility: ACTRFS
11	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.	Agreed	38	TAMS is provided with specific funding to undertake fire trail management consistent with BOPs. In addition, direct funding - now part of recurrent funding - provided to TAMS for hire of seasonal first attack plant for fire suppression and undertaking BOP activities including trail and access maintenance when not in use for rapid response action.	Actions conform.
12	Responsibility for fire access should lie with the land managers: advice and auditing functions should be the province of the fire authorities.	Agreed	38	Implementation of fire access arrangements specified in BOPs prepared by relevant land managers. Auditing of BOPs by ACTRFS.	Actions conform.

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13	<p><u>Aerial Operations</u> 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>	Agreed	24, 25, 26	<p>The ESA, under arrangements with National Aerial Firefighting Centre (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 states. Ground crews [Remote Area Firefighting Teams (RAFT) and Brigades] are available to support aerial operations.</p>	Actions conform.
14	A small number of ACT fire fighters should be trained as air attack supervisors, to provide a capability when the number of aircraft involved requires it.	Agreed	14	<p>Although ESA implements a comprehensive training program, ACT fire fighters have not been trained as air attack supervisors.</p> <p>Currently, NSW Rural Fire Service (NSWRFS) provides ACT with air attack supervision as required. During interviews it was raised that during the 2003 fires all NSW air attack supervisors were fully deployed in NSW and hence none available to support ACTRFS management.</p>	<p>Actions conform.</p> <p>SAR to formalise processes to give high probability that during large scale bushfires NSWRFS is able to supply air attack supervisors to ESA or alternative arrangements implemented (eg secondment of Victorian air attack</p>

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					services to ensure that intent of recommendation is met. Responsibility: ESA
15	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.	Agreed	25, 26	Refer to response to Rec. 13.	Actions conform.
16	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	Agreed	22, 50	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".	Actions conform.

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	afforded by a much larger bushfire service.				
17	The ACT Bushfire Service should explore conducting a joint trial with the NSW Rural Fire Service to assess the effectiveness of retardant bombing.	Agreed	27	Trial conducted by Bushfire CRC.	Actions conform.
18	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.	Agreed		Co-ordinated by NAFC. Refer to response to Rec. 13.	Actions conform.
19	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 facility at Curtin or, preferably, by locating to a more suitable alternative site, where a more functional, longer term operations centre can be developed.	Agreed	8	ESA's operational command and control facilities currently consolidated in facility located at Curtin ACT. Plans to upgrade operations centre have not been finalised.	SAR to finalise and implement ACT Government agreed plan for "a more functional, longer term operations centre". Responsibility: ESA

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20	<p>Incident Command and Control 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.</p>	Agreed	11	<p>The ESA's policy is to conduct incident control consistent with AIIMS requirements.</p> <p>The ESA conducted the initial integrated multi-agency exercise [involving ACT organisations of SES, RFS, and TAMS, and NSW RFS and NSW Department of Environment and Climate Change (DECC)] to simulate emergency command management utilising AIIMS process between 14-15 October 2008 to simulate Level 3 incident.</p>	<p>SAR to involve all relevant agencies in operational exercises; eg ACT Police and ACT Fire Brigade (ACTFB).</p> <p>Responsibility: ESA</p>
21	<p>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 incidents within the ACT, regardless of location or the services' areas of responsibility.</p>	Agreed	12, 13	<p>The ESA has established pre-formed IMTs consisting of ESA and TAMS personnel holding the required competencies.</p>	<p>Actions conform.</p>
22	<p>Facilities at ESB headquarters should be such as to provide the best opportunity for the ICS to</p>	Agreed	8	<p>ESA's facilities provide separate facilities for incident control.</p>	<p>Actions conform.</p>

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	function at a tactical and strategic level in accordance with the Australasian Fire Authorities Council doctrine.				
23	<p><u>Vehicles and Other Equipment</u> Four rural pumpers should be added to the fire service fleet, specifically for use in the urban-rural interface.</p>	Agreed		<p>Additional equipment has been deployed including:</p> <ul style="list-style-type: none"> ➤ 4 rural interface tankers equipped with Compressed Air Foam Systems (CAFS) (ACT FB) ➤ 6 CAFS tankers (ACT RFS) ➤ 21 slip-on units supplied to rural leases ➤ 9 slip-on units supplied Government land managers 	Actions conform.
24	<p><u>The Rural Fire Control Manual</u> Work already begun on the review of the <i>Rural Fire Control Manual</i> should be resumed with the view to replacing the manual by new publications that cover the following:</p> <ul style="list-style-type: none"> § a document detailing public policy in relation to fire management § an operation policy manual for internal use § a supporting set of standing operational procedures covering 	Agreed		<p>Components of recommendation implemented through SBMP processes which incorporates policies and strategic objectives for bushfire management in ACT.</p> <p>Other ACTRFS documents such as "Remote Area Guidelines" and "Operations Manual 2008-2009" address operational issues.</p> <p>A consolidated Rural Fire Control Manual detailing policy, administrative and operational processes (supported</p>	SAR to finalise and implement comprehensive manual consistent with the intent of recommendation.

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	techniques and practices reflected in the Basic Training Modules publications			by Standing Operating Procedures (SOPs) has not been finalised.	Responsibility: ACTRFS
25	<p>Training and Development 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.</p>	Agreed	14,15	<p>ESA implements comprehensive training programs consistent with requirements of AIIMS.</p> <p>However it appears that there is no formal matching of training programs with a training needs analysis for the whole of ACTRFS responsibilities.</p> <p>Feedback from staff and volunteers indicate that funding appropriate for training.</p>	<p>SAR to align participation in training programs and competency maintenance with comprehensive training needs analysis for whole of responsibilities of ACTRFS.</p> <p>Responsibility: ESA</p>
26	The Government should consider the proposals when they are submitted with the view to allocating some additional funding to enable the	Agreed	17	Feedback from staff and volunteers of ACTRFS indicate that funding is adequate for persons to participate in relevant courses and programs.	Actions conform.

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	bushfire authorities to improve the training and professional development opportunities available to paid and volunteer personnel, in the interests of increasing their skill base and experience.				
27	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.	Agreed		Proposal to establish an outdoor training complex for all emergency personnel currently being developed. Considered a works-in-progress.	SAR to finalise and implement proposals. Responsibility: ESA
28	<u>Occupational Health and Safety</u> A procedure should be adopted whereby important operational decisions affecting the safety of fire fighters are discussed with a more senior officer before implementation, whenever this approach is feasible.	Agreed	11	ESA has a policy of implementing AIIMS for all incidents. AIIMS has clear lines of command and control for making operational decisions regarding safety of fire fighters. Decision making process for OH&S also detailed in SOPs. OH&S also a major component of training programs.	Actions conform.
29	The responsible Minister should clarify the application of the ACT <i>Occupation Health and Safety Act 1989</i> to volunteers by issuing a ministerial directive.	Agreed		Clarified by ACT Minister for Industrial Relations (October 2005). Volunteers engaged in emergency management or training are considered to be employees under OH & S Act.	Actions conform.

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30	Upon the Minister's directive coming into force, a legislative amendment should be made to continue the application of the protections against prosecution afforded under the <i>Bushfire Act 1936</i> .	Agreed		Addressed through <i>Emergencies Act 2004</i> .	Actions conform.
31	<u>Relationship between the Fire Management and Land Management agencies</u> 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 managers and the ACT Bushfire Service can achieve a stronger, mutually supportive relationship.	Agreed	37	Implemented via on-going meetings between Commissioner ESA and Director of Parks, Conservation and Lands Division (TAMS).	Actions conform.
32	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	Agreed	39	Generally addressed by policy in S120 of <i>Emergencies Act 2004</i> , requiring land managers to take all reasonable steps to prevent the outbreak and spread of fire on their land. In terms of initial response to bushfires the ESA's policy is that nearest	MAR to formalise MOU and/or Commissioner's guideline between ESA and TAMS clarifying processes for involvement of TAMS staff in initial

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	response of the ACT bushfire Service.			available crews will be dispatched. Potential issue with land managers informing ACTRFS of their initial response to bushfires on land they manage.	response on land managed by TAMS. Responsibility: ESA
33	<u>Commonwealth and interstate contributions</u> An automatic weather station should be located in the Brindabella Range to assist with fire weather forecasting.	Agreed		Automatic weather station established at Mt Ginini (July 2004)	Actions conform.
34	<u>Scaling-up</u> 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.		45, 46	Agreed MOU between ESA and NSW RFS signed in March 2009.	Actions conform.
35	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	Agreed	46	Agreed MOU between ESA and NSW DECC - "Cross Border Agreement on Fire Preparedness, Response and Suppression" - signed in February 2009	Actions conform.

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	the resources available in the ACT an the surrounding regions could be more easily mobilised in serious emergency situations- to the advantage of both jurisdictions.				
36	The level of resources for the training and operational exercising of volunteer bushfire and emergency service personnel should be increased, to improve current skill and experience levels.	Agreed	14, 15, 16, 17	See response to Rec. 26 for training. In discussions with ACTRFS staff and volunteers a common theme was the lack of opportunities for volunteers to gain experience in operational exercising and apply their training.	MAR to increase opportunities for volunteers to gain fireground operational experience. Responsibility: ACTRFS
37	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.	Agreed	23, 25	Additional summer personnel with work priority for fire fighting are employed by TAMS. Also RAFT teams (involving TAMS and ESA personnel) are available for deployment during summer.	Actions conform.
38	These staff should provide land management agencies with a capability to be first responders to fires on land they manage.	Agreed		Refer to Rec. 37.	Actions conform.

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39	<p><u>Public Education</u> ESB should be allocated additional resources so that it can upgrade its public education capability to support a stronger, continuing campaign of public education directed at improving the Canberra community's bushfire awareness, its understanding of the nature of the threat, and its knowledge of how people can better protect themselves and their properties. The campaign should draw on the public education experience of interstate bushfire authorities, particularly the Country Fire Authority of Victoria.</p>	Agreed	51, 56, 57	<p>At a general level the ESA implements a comprehensive and on-going community focused education program branded under FireWise supported by a range of publications and on-going media announcements. However no evidence sighted that tracked the effectiveness of the education programs on the Canberra community's bushfire awareness, understanding of nature of threats, application of knowledge, on-ground actions and capacity to protect themselves and their property. In designing education programs it is worthwhile noting that individuals often consider themselves and their assets to be at less risk in bushfires than their community.</p>	<p>MAR to track effectiveness of education programs in prompting individuals and community to take on-going and effective on-ground actions to address various levels of bushfire risks.</p> <p>Responsibility: ESA in collaboration with Council.</p>
40	<p>Initiatives such as fire guard and other forms of direct community support should be introduced to encourage self-help arrangements in the community.</p>	Agreed	83	<p>Education program branded under FireWise. Commencement of Farm FireWise in 2007 targeted at rural communities. Creation, since 2003, of 38 Community Fire Units (CFU).</p>	Actions conform.
41	<p>The message to the community should include acknowledgement that in major</p>	Agreed	56	<p>ESA has implemented Standard Emergency Warning System (SEWS) for emergency announcements.</p>	Actions conform.

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	bushfire emergencies: <ul style="list-style-type: none"> ❖ the authorities are unable to guarantee that fire fighters will always be available to assist ❖ householders generally need to take sensible precautions and be prepared, if that is their choice, to protect their own lives and properties ❖ the authorities are committed to doing all they can to help, including advising the community on how best to go about achieving a higher degree of personal and household self-reliance. 			ESA utilises a range of ACT Government endorsed publications (branded under FireWise banner and other ACT agency publications) together with on-going media opportunities to educate individuals and communities about preparedness for bushfires and what to do if there is a bushfire. The ACT Government in their publications explicitly states that authorities are unable to guarantee that fire fighters will always be available. For example, refer to <i>"Bushfires and the Bush Capital"</i> and <i>"Emergencies and the National Capital - A resident's guide"</i> .	
42	<u>Public Information</u> The Media Sub-Plan of the ACT Emergency Plan should be reviewed to include a greater focus on the provision of community information.	Agreed	57	The Media Sub-Plan has been replaced by Public Information Plan co-ordinated by Recovery Centre. The Public Information Plan is regularly reviewed by ACT Government.	Actions conform.
43	Well-defined, well-practised processes should be developed to support the delivery of information to the public. This includes improving the alert	Agreed	57, 59	ACT utilises SEWS processes and procedures.	Actions conform.

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	mechanisms for residents prior to an emerging danger period.				
44	Media communications systems and facilities at ESA headquarters should be improved.	Agreed	57	ESA Headquarters provide dedicated facilities for media communication.	Actions conform.
45	There should be greater coordination of the content of whole-of-government media releases and messages.	Agreed		Effectively implemented through on-going working relationship between ESA and Director of ACT Government Communications. Chief Minister's Office has formal role in co-ordinating media releases and messages.	Actions conform.
46	Back-up power should be available for the Canberra Connect call centre.	Agreed		Back-up generator installed.	Actions conform.
47	The Community Information Sub-Plan of the ACT Emergency Plan should be reviewed to reflect needs broader than just media arrangements	Agreed		Implemented through Public Information Plan processes.	Actions conform.
48	The role Canberra Connect has demonstrated it can play should be included as a part of a revised Media Sub-Plan of the	Agreed		Implemented through MOU between major ACT media outlets and Canberra Connect.	Actions conform.

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	ACT Emergency Plan.				
49	Before each bushfire season familiarisation briefing sessions should be held for the media.	Agreed		Familiarisation briefing session conducted annually for media including training and accreditation to enter fire ground.	Actions conform.
50	ESB should have the capacity to engage an experienced media director to be available in an emergency, to coordinate the provision of information to the media and for general public information purposes.	Agreed		Experienced media resource appointed within ESA organisation.	Actions conform.
51	<u>Evacuate or Stay?</u> ACT Policing and the Emergency Services Bureau should develop as a matter of urgency - and before the start of the 2003-04 bushfire season - a joint protocol covering their policy on community safety and evacuation during bushfires, having regard to the framework adopted by the Australasian Fire Authorities Council and the evacuation provisions in the Victorian Country Fire Authority Act. The protocol should be promulgated widely as part of	Agreed	43, 44	Implemented through adoption of AFAC's policy and publicised through ACT publications, ' <i>Emergencies and the National Capital - A Resident's Guide</i> ' and ' <i>Bushfires and the Bush Capital - A Guide for the ACT</i> '. Intent of recommendation also supported by ACT "Guidelines for the Appointment of Territory Controller".	Actions conform.

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	future community education and information programs, and it should be incorporated in the training and operational procedures of both services, so that it is followed consistently during future bushfire events.				
52	<u>Forestry settlements</u> A sub-plan of the ACT Emergency Plan should be developed to assist with the design of special arrangements to cater for the needs of ACT residents who live beyond the city bounds.	Agreed	64	The implementation of Farm FireWise (2007) targets fire awareness education of rural lessees and rural communities.	Actions conform.
53	<u>A more unified and independent emergency services organisation</u> The separate organisations that make up the emergency services group that is coordinated by the Emergency Services Bureau, and the associated arrangements, should be replaced by a statutory authority, the ACT Emergency Services Authority.	Not implemented		ESA established headed by Commissioner within administration structure of Department of Justice and Community Safety (JACS).	N.A.
54	The proposed authority should	N.A.		Refer to response to Rec. 53.	N.A.

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	be headed by a Chief Executive Officer.				
55	The position of Chief Executive Officer should be advertised and filled on a contract basis before the enactment of the legislation. In this way the person appointed can contribute to formulating the legislation and the transition process can begin without delay.	N.A.		N.A.	N.A.
56	Upon the abolition of the Emergency Services Bureau, a small policy formulation unit should be established in the department that supports the Minister responsible for emergency management.	N.A.		N.A.	N.A.
57	<u>The Emergency Management Act</u> The ACT's <i>Emergency Management Act 1999</i> should be reviewed with the aim of preparing legislation that provides as follows: § In a declared state of emergency, the ACT	Agreed		The <i>Emergencies Act 2004</i> incorporates the provisions detailed in Recommendation.	Actions conform.

NO.	RECOMMENDATIONS/ STATEMENT	ACT GOVT RESPONSE	RELATED RECOMMEND'NS IN DOOGAN REPORT NO(s).	IMPLEMENTATION ACTIONS	IMPLEMENTATION
	<p>Government should have the capacity to appoint as Territory Controller a person who is considered to be best qualified to take this role, having regard to the nature of the emergency or event giving rise to the declaration.</p> <p>§ The Controller shall have the capacity to delegate to a nominated person any or all of the powers that have been assigned under the instrument of appointment as Controller.</p> <p>§ The chair of the Emergency Management Committee shall be appointed by the Minister responsible for the administration of the Emergency Management Act.</p> <p>§ There should be a capacity for different levels of special powers and the capacity for escalation to be invoked to assist in the management of emergencies, having regard to the differing scales or types of emergencies that may arise or the changing nature of an emergency during its course.</p>				

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58	<p><u>The Bushfire Act and other Legislation</u> The <i>Bushfire Act 1936</i> should be reviewed and redesigned to reflect contemporary needs, and the ACT Bush Fire Council's role should be re-expressed in the Act to more accurately describe its current activity.</p>	Agreed		The Commissioner of ESA under the Emergencies Act 2004 is required to ask for, and consider, ACT Bushfire Council's advice before exercising regulatory functions relating to bushfires.		Actions conform.
59	<p><u>Bushfires and Land Planning</u> 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.</p>	Agreed		Bushfire Abatement Zones were defined in SBMP (Version 1) for these lands.		Actions conform.
60	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.	Agreed		<p>The Planning and Land Authority has adopted '<i>Planning for Bushfire Risk Mitigation</i>' as Planning Guideline under the Territory Plan.</p> <p>It is noted that Guideline is currently being reviewed.</p>		Actions conform.
61	The abatement zone should be declared a bushfire-prone area, and the requirements of the Building Code of Australia-in particular, its standards for	Agreed		Refer to response to Rec. 60.		Actions conform.

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	bushfire-prone areas-should be applied to all future developments in the zone.				

PART B: ASSURANCE CHECK ON QUALITY OF IMPLEMENTATION FOR RECOMMENDATIONS FROM DOOGAN INQUIRY

NO.	RECOMMENDATIONS/ STATEMENT	RISK CAT.	ACT GOVT RESPONSE	RELATED RECOMMEND'NS FROM McLEOD REPORT NO.	IMPLEMENTATION ACTIONS	JUDGEMENT ON QUALITY OF IMPLEMENTATION
1	<p>Administration I recommend that the Attorney-General and the ACT Government - in consultation with the Chief Justice of the ACT and the ACT Chief Magistrate - take legislative action that would have the effect of funds being directly appropriated annually to the courts, preferably along the lines of the Commonwealth model as it applies to the High Court of Australia, the Federal Court of Australia, the Family Court of Australia and the Federal Magistrates Court. Alternatively, the funds be could be appropriated in accordance with the South Australian model, which has a separate Courts Administration Authority.</p>		Not agreed		As noted in Section 2 recommendations related to Administration (Rec. 1 - 7) considered to fall outside Project Brief and consequently not incorporated in this evaluation.	N.A.
2	I recommend that the ACT's <i>Director of Public Prosecutions Act 1990</i> be amended by repealing s. 6(d) of the Act.					N.A.

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3	I recommend that s.59 of the ACT <i>Coroners Act 1997</i> be amended by deleting the words 'by instrument' in s. 59(1) and by deleting the words 'by his or her instrument of appointment' in s.59(2)(b).					N.A.
4	I recommend that s.47 of the ACT <i>Coroners Act 1997</i> be expanded to explicitly state that an inquest and inquiry are not adversarial in nature and are solely inquisitorial, with a view to establishing the truth.					N.A.
5	I recommend that the ACT Government consider amending the <i>Coroners Act 1997</i> to include what were ss. 56(1)(d) and 56(2)(c) of the 1956 Coroners Act.					N.A.
6	I recommend that the ACT Government commission a review of coroners' jurisdiction in order to determine whether that jurisdiction ought to be limited or expanded and, if so, to what extent.		Agreed			N.A.

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7	<p><u>The Emergency Services Agency</u> That the Emergency Services Agency be removed from the Department of Justice and Community Safety and transformed into an independent statutory authority reporting directly to the responsible Minister. I note in this regard that Mr McLeod made a similar recommendation, and I endorse it unequivocally. Placing the agency within a government department puts unnecessary layers of bureaucracy between the agency and the responsible Minister, and the bureaucrats concerned usually have no special knowledge of or experience in emergency management, regardless of their seniority in the bureaucracy.</p>		Not agreed	53	<p>Recommendation not agreed by Government. ESA incorporated within administration structure of JACS.</p> <p>It is noted that the <i>Emergencies Act 2004</i> requires operational decisions to be made by Commissioner and officers of ESA.</p> <p>From discussions with senior staff of ESA the current arrangements are considered to be working in satisfactory manner.</p>	N.A.
8	That the Emergency Services Agency be relocated into accommodation that is purpose-built and more suited to the agency's operations than the		Agreed	19, 22	<p>ESA currently consolidated in upgraded facilities located at Curtin, ACT.</p> <p>Plans to relocate ESA into purpose built accommodation have not been</p>	SAR to finalise and implement ACT Government agreed plans for accommodation of

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	current facility at Curtin.				finalised.	ESA in purpose built facility. Responsibility: ESA
9	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.		Agreed		<p>The ESA has developed and is implementing enhanced risk management approaches to bushfire management as evidenced by SBMP (V1), draft of SBMP (V2, BOPs and in-preparation sub-regional bushfire plans.</p> <p>In the areas of incident management and prediction, risk management processes could be enhanced by formal development and implementation by IMT of detailed processes which integrate bushfire management strategies with actions undertaken in other plans and effective communication of this knowledge to the community.</p>	<p>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.</p> <p>Responsibility: ESA</p>
10	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		Agreed		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).	SAR, to incorporate within Pre-season Checklist processes, explicit linking of qualitative risk analysis of prevailing and forecast conditions, and circumstances for

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	analysis of the conditions and circumstances prevailing and forecast and develop strategies to ensure heightened preparedness during seasons identified as severe.				<p>The Workshop was informed by maps produced by Bushfire CRC and BOM "Fire Potential Outlook for Australia 2008-2009".</p> <p>No evidence that ESA has explicit procedures to link qualitative risk analysis of the prevailing and forecast conditions and circumstances with strategies to ensure heightened preparedness during season identified as severe.</p>	<p>upcoming season with strategies to ensure heightened preparedness during season identified as severe.</p> <p>Responsibility: ACTRFS</p>
11	That regular periodic reviews be undertaken of changes made to the operational and management arrangements for dealing with wildfires and other emergencies in the ACT, to ensure that those arrangements continue to comply with the Australian Inter-Agency Incident Management System Incident Control System.		Agreed	20	<p>ESA Policy for Incident Response and Co-ordination recently reviewed and reissued (6/1/09).</p> <p>The ESA conducted the initial integrated multi-agency exercise (involving ACT organisations of SES, RFS, TAMS, and NSW RFS and NSW DECC) to simulate emergency command management utilizing AIIMS-ICS between 14-15 October 2008 for Level 3 incident.</p>	Actions conform.
12	That appointments of personnel to functional positions within the incident management team be based solely on competence		Agreed	20, 21, 22	ESA policy for all appointments to IMTs be filled by competent and experienced people as specified by AIIMS. Appointment protocols have been	SAR to embed within Pre-season Checklist processes to ensure that uptodate

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	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.				developed by ESA with Incident Controller making appointments to IMT based on skills, competence and experience as specified by AIIMS.	register of personnel with required competencies and experience is maintained to guide appointments to IMTs. Responsibility: ESA/ACTRFS
13	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 commensurate with their skills and experience.		Agreed	21	As detailed in response to Rec. 12 the ESA has a policy of utilising available people with required competencies and experience independent of their professional roles. In practice this policy could be strengthened in implementation by establishing and maintaining a central and comprehensive register of available people with required skills and experience.	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. Responsibility: ESA/ACTRFS
14	That training of all personnel involved with emergency services be under constant review.		Agreed	14, 25, 36	ESA implements a comprehensive training program. Program is under regular review. Adequacy of training a component of Pre-Season Checklist.	SAR to align training programs with comprehensive training needs analysis covering

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					The effectiveness of training programs could be strengthened by formal matching of participation in training programs with a training needs analysis for whole of ACTRFS responsibilities.	whole of responsibilities and competencies required for ACT RFS. Responsibility: ESA/ACTRFS
15	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.		Agreed	14, 36	ESA utilises external agencies to deliver ICS training programs as required. As noted in response to Rec. 14 effectiveness of ICS training could be enhanced by more formal linking of training to individually based training needs analysis.	MAR to link ICS training and related competencies with training needs analysis linked to resourcing requirements for different level incidents. Responsibility: ESA
16	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.		Agreed	36	ACTRFS and ESA have extensive communication programs - using training sessions on results of Project VESTA, Pre-season workshops, on-going training and national and regionally based publications - to update fire fighting personnel on information relevant to wildfire behaviour and suppression. In discussions with staff and volunteers anecdotal evidence that fire fighting	SAR to implement more user friendly access by fire fighters to relevant and practical information.

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					personnel have difficulty in identifying the useful components of information which is relevant to their roles from the vast quantity of information available.	Responsibility: RFS
17	That the ACT Government allocates sufficient funds to enable full-time and volunteer fire fighters to participate in relevant courses and programs.		Agreed	26, 36	Feedback from staff and volunteers of ACTRFS indicate that funding is adequate for fire fighters to participate in relevant courses and programs.	Actions conform.
18	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.		Agreed	9	<p>Protocols have been developed and implemented between ESA and TAMS (Division of Parks, Conservation and Lands) to formalise 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>SAR to finalise protocols between ESA and TAMS for provision of integrated and specified mapping products for use in fire management.</p> <p>Responsibility: ESA</p>
19	That an appropriate geographic information systems capability be maintained to enable the		Agreed	9	ESA has technical resources and facilities to produce and distribute fire-specific maps in a timely manner.	Actions conform.

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	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.					
20	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.		Agreed	36	<p>ESA has capability to deliver fully integrated interoperable communication system for all agencies (including NSW emergency services) and aircraft involved in fire management.</p> <p>During interviews with staff and volunteers indication that additional training is required to strengthen the capability of staff to utilise the benefits of the integrated communication system.</p>	<p>SAR to increase opportunities for staff and volunteers to gain operational experience in the effective use of integrated communication systems during bushfire conditions.</p> <p>Responsibility: ACTRFS</p>
21	That version 2 of the Strategic Bushfire Management Plan be completed and introduced without delay.		Agreed	1, 3	<p>SBMP (V2) is due for completion in 2009.</p> <p>It is noted that SBMP (V2) was initially scheduled for release in July 2005.</p>	<p>MAR to finalise SBMP (V2).</p> <p>Responsibility: ESA</p>
	Resources and Strategies					

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22	<p>That, because of the small jurisdiction of the ACT (equivalent to one fire district in NSW) the ACT Government consider all possible options for the provision of fire services to the ACT, among them</p> <ul style="list-style-type: none"> • subcontracting the provision of all fire services - or a part, such as bushfire services - to NSW firefighting services • including in the memorandum of understanding between the ACT and NSW mutual obligation arrangements • gradually integrating the ACT Rural Fire Service with the ACT Fire Brigade and establishing a single ACT fire service under a single management and command and control structure • along the lines of the Tasmania Fire Service and Victoria's Country Fire Authority. 		Agreed in part		<p>The ACT Government has established the ESA (through the <i>Emergencies Act 2004</i>) incorporating services provided by ACTRFS, ACT Fire Brigade, ACT State Emergency Service and ACT Ambulance Service to manage emergency management in ACT.</p> <p>The ESA and NSWRFs have developed and are implementing MOU related to co-operative bushfire management.</p>	Actions conform.
23	That priority be given to ensuring that the ACT has an adequate resource of remote area firefighting teams		Agreed	37	The ACTRFS has a target of maintaining 5 remote area fire fighting teams (RAFTs) incorporating two RAFTs from TAMS. All personnel are required to	Actions conform.

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	consisting of personnel with high levels of fitness and training in remote fire suppression.				meet fitness and competency requirements.	
24	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.		Agreed in part	13	The ACT Government has a policy of responding to all remote area fires as quickly as possible consistent with ensuring the safety of fire fighters, and judgements on the appropriate actions to manage the fire within prevailing and forecast conditions and circumstances.	Actions conform.
25	That remote area firefighting resources be deployed to a fire in a remote areas as a matter of priority and in preference to the deployment of large tankers.		Agreed in part	37	ESA has policy of deploying resources (RAFT and/or air and tankers) based on operational and situational conditions associated with a bushfire. The policy for deployment of RAFT resources is detailed in ACTRFS "Remote Area Fire Guidelines".	Actions conform.
26	That helicopters be used wherever possible to facilitate the rapid deployment of remote area firefighting crews.		Agreed	13	Implemented. Also refer to response to Rec. 25.	Actions conform.

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27	That the Emergency Services Agency investigate and implement arrangements that will provide the capacity to use fire retardant in remote areas.		Agreed	17	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.	MAR to implement approved arrangements for use of fire retardant in remote areas. Responsibility: ESA in consultation with TAMS.
28	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.		Agreed		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. Contractual arrangements between ESA and TAMS need to be implemented to ensure that heavy equipment contracted by TAMS meets ESA requirements.	SAR to finalise contract between ESA and TAMS to ensure that heavy equipment contracted by TAMS meets ESA requirements, including suitability and availability criteria. Responsibility: ESA
29	That land managers ensure their staff are properly trained in the effective use of large bulldozers at wildfires and that staff are available to be assigned to supervise bulldozer operations.		Agreed		TAMS checks that staff have required competencies to effectively use and supervise bulldozer operations. TAMS is currently developing a training course, using relevant material, to allow enhanced formal training in effective use of large bulldozers.	Actions conform. SAR to finalise appropriate course delivery. Responsibility: TAMS

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30	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.		Agreed		No evidence was sighted that a review consistent with the intent of the Recommendation had been undertaken.	MAR to conduct review as recommended. Responsibility: ACTRFS
31	That the Emergency Services Agency reconsider and revise the arrangements that exist between the ACT Fire Brigade and Canberra airport in relation to the provision of assistance.		Agreed in principle		Negotiations between Commissioner ESA and Canberra Airport to review arrangements continuing.	SAR to finalise negotiations and implement agreement. Responsibility: ESA
32	Fuel Management That a hazard-reduction 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.		Agreed in principle	1	The SBMP specifies the hazard-reduction policies and strategies to be followed in ACT. Local Area Plans, developed consistent with SBMP (V1), specify a targeted hazard reduction program to balance fuel reduction, requirement of ecological sustainability and community issues. From discussions with staff of ESA, including ACTRFS, and TAMS there is an expectation that the processes being used to develop SBMP (V2) and implement sub-regional bushfire plans will facilitate the clarification of fuel	MAR, in context of hazard 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: ❖ Tradeoffs in the

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					<p>reduction policies and their on-going application across all land categories in ACT.</p> <p>No evidence was sighted that the levels of "strategic burning" called for by the Recommendation have been implemented in ACT.</p>	<p>protection of ecological/social and physical assets;</p> <ul style="list-style-type: none"> ❖ 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; ❖ Timely implementation arrangements. <p>Responsibility: ESA</p>
33	That clarification be provided and information be made public in connection with hazard reduction proposed under the Strategic Bushfire Management Plan for the area designated		Agreed	2	<p>Refer to above response to Recommendation 32.</p> <p>It is proposed that the content of Local Area Plans, which will incorporate specific and detailed hazard reduction</p>	MAR required to finalise Sub-Regional Plans and incorporate information into Web-based systems.

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	'Land Management Zone', which appears to cover about 70 per cent of the ACT landscape and might be excluded from fuel-reduction burning.				work, will be accessible via web.	Responsibility: ESA/TAMS
34	If it is not part of the proposed version 2 of the Strategic Bushfire Management Plan, that the plan be revised to provide for a fuel-reduction burning regime in the 'Land Management Zone' that is equivalent to that contemplated for the corridors designed as the 'Landscape Division Zone' and that the regime involve burning areas in rotation to achieve an appropriately varying fire age spectrum across the entire landscape.		Agreed in principle		SMBP (V2) has not been finalised. Consequently not able to assess the intent of Recommendation has been incorporated into SBMP (V2).	MAR to finalise SBMP (V2) and provide evidence on actions specified in Recommendation. Responsibility: ESA
35	That responsibility for fuel management lie with the land management agency that controls the area and that land managers be given authority to implement prescribed fuel-reduction burns within their		Agreed	6	Although simplified approval processes for approving fuel reduction burns are being developed, processes have not been finalised.	SAR to finalise policy on processes and authorities to approve prescribed fuel reduction burns. Responsibility:

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	area.					ACTRFS
36	That prescribed burning operations be conducted according to agreed standard burning prescriptions.		Agreed in principle	2, 6	ACTRFS and TAMS have agreed standards for prescribed burning operations which are applied templates. The standards have been informed by standards in Victorian <i>"Code of Practice for Fire Management on Public Land"</i> .	Actions conform.
37	That the Emergency Services Agency has authority over the land management agencies and other landholders in order to implement preparedness and prevention measures - including fuel-reduction works where there are failures in compliance.		Agreed	6, 31	The ESA, under provisions of <i>Emergencies Act 2004</i> , has authority to monitor and direct preparedness and prevention measures over land management agencies and other landholders.	Actions conform.
38	That a program be implemented to ensure that existing fire tracks and trails are cleared and accessible at all times and that a network of additional fire trails be established so as to allow direct fire suppression operations without undue delay in the event of a wildfire.		Agreed in principle	7, 11, 12	The SBMP (V1) identified strategic access requirement for ACT. ACT Government has a policy of establishing a network of additional trails to allow direct fire ground access to all areas. ACT fire access policy (detailed in "ACT Rural Fire Service Guidelines for Bushfire Access in the ACT") specifies that "a fire access network will be established and maintained across ACT that balances a risk-based assessment	SAR to strengthen alignment between strategic intent of plans and timely on-ground outcomes.

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					<p>of fire access requirements with protection of biodiversity, soil, aquatic, catchment, cultural and aesthetic values”.</p> <p>BOPs provide opportunities to detail the annual maintenance of trails and other access requirements.</p> <p>TAMS as part of Pre-Season Checklist by ACTRFS reports on status of access for all trails.</p> <p>SBMP (V2) is currently considering requirement for new and revised trails.</p> <p>To test the strength of alignment between current levels of fire access and the levels envisaged in SBMP (V1) it would be beneficial to evaluate the outcomes for roads/trails detailed for new alignment and/or major upgrade identified in Map 9, SBMP (V1).</p>	<p>Responsibility: RFS</p>
39	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		Agreed	32	<p>Generally addressed by requirement of S120 of <i>Emergencies Act 2004</i>.</p> <p>Specifically ESA's policy is that nearest available crews will be dispatched to fire.</p>	SAR to finalise Commissioner's guidelines between ESA and TAMS detailing processes for involvement of TAMS staff in initial

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	overall operational response of the ACT Rural Fire Service.				Currently outstanding issue to clarify response protocols with TAMS.	response on land managed by TAMS. Responsibility: ESA
40	That the policy and practice just recommended be the subject of a memorandum of understanding between the Emergency Services Agency and the Department of Territory and Municipal Services (previously the Department of Urban Services) or other relevant department or agency, so as to ensure that the land management agency on whose land a fire starts has responsibility to respond immediately to that fire in accordance with the applicable standards for weight of response. Further, the land management agency should be responsible for efforts to suppress fire until such time as it becomes clear that the suppression task is beyond the capacity of the agency, at which point the ACT Rural Fire Service should assume direct responsibility for coordinating		Agreed in principle		Refer to response to Rec. 39.	Refer to response to Rec. 39.

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	the ongoing response.					
41	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.		Agreed		TAMS (as land management agency) has identified in its organisational structure a number of senior positions where fire management skills are required. TAMS also provide targeted training for staff in fire management resourcing and as detailed in 2008/2009 BOP.	SAR to maintain an up to date register of TAMS staff with relevant competencies and experience to perform fire management roles. Responsibility: TAMS
42	That senior officers in the Australian Federal Police and the Emergency Services Agency maintain regular and meaningful contact during fire emergencies, to ensure full dissemination of information and thus facilitate the making of good operational decisions.		Agreed		Implemented through ACT Emergency Management Plan and "All Hazards" emergency management arrangements for ACT. Also reinforced through protocols detailed in "Guideline for the Appointment of Territory Controller".	Actions conform.
43	<u>Liaison with Australian Federal Police</u> That the Australian Federal Police and the Emergency Services Agency agree on a policy on community safety and evacuation during bushfires, based on the Australasian Fire		Agreed	51	ESA implements policy arrangements detailed in publications "Emergencies and the National Capital - A Resident's Guide" and "Bushfires and the Bush Capital - A Guide for the ACT". The policy incorporates AFAC's protocols.	Actions conform.

NO.	RECOMMENDATIONS/ STATEMENT	RISK CAT.	ACT GOVT RESPONSE	RELATED RECOMMEND'NS FROM McLEOD REPORT NO.	IMPLEMENTATION ACTIONS	JUDGEMENT ON QUALITY OF IMPLEMENTATION
	Authorities Council position outlined in its paper Community Safety and Evacuation during Bushfires. Community education programs should incorporate advice on this, including the 'stay or go' policy.				Issues also addressed through protocol detailed in " <i>Guideline for the Appointment of Territory Controller</i> ".	
44	That the Australian Federal Police and the Emergency Services Agency ensure that personnel in their respective organisations are fully briefed on the agreed policy on evacuations.		Agreed	51	Evacuation policy detailed in " <i>Emergencies and the National Capital - A resident's guide</i> ". Also procedures for various levels of incidents detailed in " <i>Guideline for the Appointment of Territory Controller</i> ".	SAR required to conduct operational exercises to strengthen effective implementation of evacuation Policy. Responsibility: ESA
45	<u>Co-operation and Liaison with NSW Authorities</u> That the Emergency Services Agency, with the support of the ACT Government, develop a single, new memorandum of 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		Not agreed	34	ACT Government's policy is for ESA to maintain separate MOUs with NSW RFS and NSW DECC. Current arrangements already provide for joint operations when bushfires occurs in either jurisdiction.	N.A.

NO.	RECOMMENDATIONS/ STATEMENT	RISK CAT.	ACT GOVT RESPONSE	RELATED RECOMMEND'NS FROM McLEOD REPORT NO.	IMPLEMENTATION ACTIONS	JUDGEMENT ON QUALITY OF IMPLEMENTATION
	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.					
46	<p>That the Emergency Services Agency, with the support of the ACT Government, seek to establish with the NSW Department of Environment and Conservation and the NSW Rural Fire Service a protocol that will provide for the establishment of a joint incident management team as part of unified control arrangements based on adoption of the following principles:</p> <ul style="list-style-type: none"> the authority whose jurisdiction is more affected, or likely to be most affected, by a fire will appoint suitably qualified and experienced personnel to the main functional roles in the incident management team - incident controller, planning officer, operations officer and logistics officer - in 		Agreed in part	34, 35	<p>MOUs between ESA (ACTRFS) and NSW RFS and NSW DECC detail the management arrangements for bushfires which have assessed potential to impact on each others jurisdiction.</p> <p>The processes specified in MOUs are judged to conform with meet the intent of Coroner's recommendation.</p>	Actions conform consistent with ACT Government response.

NO.	RECOMMENDATIONS/ STATEMENT	RISK CAT.	ACT GOVT RESPONSE	RELATED RECOMMEND'NS FROM McLEOD REPORT NO.	IMPLEMENTATION ACTIONS	JUDGEMENT ON QUALITY OF IMPLEMENTATION
	<p>accordance with its own operational arrangements but in consultation with the authority of the other affected jurisdiction.</p> <ul style="list-style-type: none"> • The authority of the other affected jurisdiction will appoint suitably qualified and experienced personnel to fill the positions of deputy incident controller and deputy to each of the main functional roles in the incident management team, as the size and complexity of the incident demands and in accordance with its own operational arrangements. This should, however, be done in consultation with the authority whose jurisdiction is most affected. • The arrangements contemplated by these provisions will be varied only with the consent of the chief officer or equivalent (or, in their absence, their deputy) of each affected authority, who will also be responsible for resolving any 					

NO.	RECOMMENDATIONS/ STATEMENT	RISK CAT.	ACT GOVT RESPONSE	RELATED RECOMMEND'NS FROM McLEOD REPORT NO.	IMPLEMENTATION ACTIONS	JUDGEMENT ON QUALITY OF IMPLEMENTATION
	<p>disagreement about which jurisdiction is most affected and about the appointment of personnel to incident management team functional roles as required by these provisions.</p> <ul style="list-style-type: none"> • The arrangements should be made using a risk-based approach. • Facilities should be shared. • There should be a single, integrated planning process and a single incident action plan. • Planning, logistics and operations functions should be shared. • There should be a coordinated process for resource acquisition and demobilisation. • Common media and community information system and distribution strategies should be used. 					
47	That the ACT and NSW authorities conduct a comprehensive risk analysis based on the most up to date		Agreed		MOU between ESA and NSWRFSS details the cross-border arrangement for mutual support in resourcing bushfire management.	

NO.	RECOMMENDATIONS/ STATEMENT	RISK CAT.	ACT GOVT RESPONSE	RELATED RECOMMEND'NS FROM McLEOD REPORT NO.	IMPLEMENTATION ACTIONS	JUDGEMENT ON QUALITY OF IMPLEMENTATION
	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.				In practice there is liaison between jurisdictions (ACTRFS and NSW RFS and NSW DECC) on fires with potential to impact on each other's jurisdictions. However formal arrangements for comprehensive risk assessment and other actions detailed in Coroner's recommendation have not been implemented.	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. Responsibility: ESA
48	That measures be taken to ensure that ACT and NSW Rural Fire Service radio communications systems are integrated, so that ACT and NSW firefighting units can communicate with each other.		Agreed		Structurally radio communication systems of NSW and ACT are integrated. In practice protocols and on-going training needs to be implemented to enhance inter-operability of radio communication systems across jurisdictions.	SAR to enhance and maintain capabilities of staff and volunteers to effectively utilise communication resources during bushfire operations. Responsibility: ESA
49	That protocols and arrangements between the ACT and NSW require that each jurisdiction be fully involved in examining and planning for the		Agreed		Although risk assessments are undertaken and shared by each jurisdiction the more rigorous joint risk management structure intended by the Recommendation is not embedded in	MAR to establish and operationally implement protocol between ACT and NSW for assessing

NO.	RECOMMENDATIONS/ STATEMENT	RISK CAT.	ACT GOVT RESPONSE	RELATED RECOMMEND'NS FROM McLEOD REPORT NO.	IMPLEMENTATION ACTIONS	JUDGEMENT ON QUALITY OF IMPLEMENTATION
	threat posed by any fire likely to affect one or other jurisdiction and in coordinating the response to that fire.				protocols.	fire threats and co-ordinating response. Responsibility: ESA
50	That formal protocols be developed and agreed with NSW authorities, so that a concerted effort that combines the resources of both NSW and the ACT can be brought to bear in the future - without impediment caused by lines on a map that make the ACT an island within the state of NSW.		Agreed	16	MOU between ESA and NSWRFSS addresses these issues. Integration of operational capacity between NSWRFSS and ACTRFSS have been strengthened by ESA adopting NSWRFSS training packages.	Actions conform.
51	<u>Community Consultation and Awareness</u> That the Emergency Services Agency take measures to ensure that the community regularly receives up-to-date information on the risk of bushfires.		Agreed	39	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.
52	That the Emergency Services Agency establish annual targets for the introduction of community education programs and provide resources to		Agreed	39	The ESA annually allocates resources for community preparedness programs. The Bushfire CRC undertakes projects to access the effectiveness of	MAR to track effectiveness of education programs in having individuals and communities

NO.	RECOMMENDATIONS/ STATEMENT	RISK CAT.	ACT GOVT RESPONSE	RELATED RECOMMEND'NS FROM McLEOD REPORT NO.	IMPLEMENTATION ACTIONS	JUDGEMENT ON QUALITY OF IMPLEMENTATION
	conduct regular independent assessments of the level of community preparedness engendered as a result of the programs.				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 ESA Business Plan 2007-2010 has a component to review effectiveness of public awareness and community education.	increase their commitments and take appropriate on-ground actions to address potential bushfire threats. Responsibility: ESA in collaboration with Council.
53	That implementation of the Bushfire Wise Program continue and include a letterbox drop of the updated Bushfire Information Booklet.		Agreed in principle	39, 40	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. Current community education programs built around Fire Wise branding.	Actions conform.
54	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		Agreed		ESA and NSWRFs co-ordinate fire risk and safety messages to the community where there is potential for cross-jurisdictional impacts. Also ESA facilitates on-going community	Actions conform.

NO.	RECOMMENDATIONS/ STATEMENT	RISK CAT.	ACT GOVT RESPONSE	RELATED RECOMMEND'NS FROM McLEOD REPORT NO.	IMPLEMENTATION ACTIONS	JUDGEMENT ON QUALITY OF IMPLEMENTATION
	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.				education across the ACT using the services of ACT Fire Brigades and ACTRFS volunteers.	
55	Warnings That the Emergency Services 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		Agreed in principle		ESA has adapted and implements SEWS for educating and informing the community of bushfire threats.	Actions conform.

NO.	RECOMMENDATIONS/ STATEMENT	RISK CAT.	ACT GOVT RESPONSE	RELATED RECOMMEND'NS FROM McLEOD REPORT NO.	IMPLEMENTATION ACTIONS	JUDGEMENT ON QUALITY OF IMPLEMENTATION
	awareness initiatives.					
56	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.		Agreed	39	ESA employs media professionals to strengthen the dissemination of information, and media management and liaison.	Actions conform.
57	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.		Agreed	41, 42	<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>	Actions conform.
58	That the Emergency Services Agency conduct investigations -		Agreed	41	ACT Government has adopted the All Hazard Warning System.	Actions conform.

NO.	RECOMMENDATIONS/ STATEMENT	RISK CAT.	ACT GOVT RESPONSE	RELATED RECOMMEND'NS FROM McLEOD REPORT NO.	IMPLEMENTATION ACTIONS	JUDGEMENT ON QUALITY OF IMPLEMENTATION
	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 community of the ACT.					
59	That a system of public warnings that uses grid references shown on the maps in the Canberra telephone directory be adopted.		Agreed	40, 41	Public warning system has utilized grid references from Canberra Telephone Directory since 2004.	Actions conform.
60	<u>Buildings and Gardens</u> That the Canberra Urban Development Working Group referred to in Mr Peter Dunn's letter consider the report prepared by Mr Leonard and note particularly that the community awareness information currently available to householders in connection with measures they can take to better protect their homes from bushfires does not refer to the potential of wooden fences, conifers and outbuilding to contribute greatly to fire		Agreed		The intent of the Recommendation is met by the ACT Planning and Land Authority implementing "Planning for Bushfire Risk Mitigation" as a planning Guideline into the Territory Plan; implementation of Authority's "Residential Planning Guidelines" and specific bushfire risk assessments for all new residential areas.	Actions conform.

NO.	RECOMMENDATIONS/ STATEMENT	RISK CAT.	ACT GOVT RESPONSE	RELATED RECOMMEND'NS FROM McLEOD REPORT NO.	IMPLEMENTATION ACTIONS	JUDGEMENT ON QUALITY OF IMPLEMENTATION
	spread, particularly in suburban areas. Also noteworthy is Mr Leonard's evidence that the linear sitting of homes on house blocks in Canberra seems to be an important factor contributing to house-to-house fire spread and that this should be avoided in future developments on the urban fringe.					
61	That the ACT Government consider taking measures to implement the provisions of Australian Standard 3959, Construction of Buildings in Bushfire Prone Areas, for the ACT urban area.		Agreed in part		ACT Government requires all new buildings and renovations (exceeding 50% of size of current premises) to meet building standard of AS 3959 in declared bushfire high risk zone areas in ACT.	Actions conform.
62	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.		Agreed		Community education programs provide information on fire behaviour, urban design and fire risks and protection of property from bushfires, including ember attack.	Actions conform.
63	That consideration be given		Agreed		ACT Planning and Land Authority	Actions conform.

NO.	RECOMMENDATIONS/ STATEMENT	RISK CAT.	ACT GOVT RESPONSE	RELATED RECOMMEND'NS FROM McLEOD REPORT NO.	IMPLEMENTATION ACTIONS	JUDGEMENT ON QUALITY OF IMPLEMENTATION
	when building to the positioning of outbuildings around residential structures such that their potential impact on the main structure is reduced.				require where building and/or development approval is required specific bushfire risk mitigation measures are applied.	
64	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.		Agreed	52	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".	Actions conform.
65	ACTEW AGL Protocols That the ACT Government and ACTEW AGL jointly develop and implement protocols that will create a procedure whereby each of the water and sewerage, electricity and gas distribution networks, or parts thereof, can safely and promptly be manipulated, controlled, shut off, isolated or disconnected under emergency conditions.		Agreed		Protocols between ACT Government and ACTEW implemented (21/6/06). General co-ordination arrangement incorporated into ACT Government's "Guideline for the Appointment of Territory Controller". Specific protocols to be finalised.	Actions conform.
66	That community education programs include unambiguous information that at times of		Agreed		Addressed in publication "Bushfire and the Bush Capital - A Guide for ACT".	Actions conform.

NO.	RECOMMENDATIONS/ STATEMENT	RISK CAT.	ACT GOVT RESPONSE	RELATED RECOMMEND'NS FROM McLEOD REPORT NO.	IMPLEMENTATION ACTIONS	JUDGEMENT ON QUALITY OF IMPLEMENTATION
	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.					
67	<p><u>2003 Inquiry by House of Representatives Select Committee</u></p> <p>I recommend that, as appropriate, the ACT cooperate with the Commonwealth in the implementation of the committee's recommendations (The 2003 Inquiry by the House of Representatives Select Committee on the Recent Australian Bushfires) and, in particular, give careful consideration to adoption of the following recommendations:</p> <ul style="list-style-type: none"> • recommendation 7- construction and maintenance of and signage for fire trail networks • recommendation 12- development of prescribed burning guides for national parks and state forests 		Agreed in part		<p>In relation to the specific recommendations the following actions have been implemented:</p> <ul style="list-style-type: none"> ➤ <u>Rec. 7:</u> Signage and maintenance policy for fire trail network detailed in "Guideline for Bushfire Access in ACT" being progressively implemented through BOP. ➤ <u>Rec. 12:</u> Refer to response to Rec. 36. ➤ <u>Rec. 22:</u> Implemented. ➤ <u>Rec. 29:</u> Refer to response to Rec. 24 and 25. ➤ <u>Rec. 35:</u> Refer to response to Rec. 20. ➤ <u>Rec. 44:</u> not implemented ➤ <u>Rec. 48:</u> Refer to response to Rec. 61. ➤ <u>Rec. 51:</u> Bushfire Clean-up Day conducted in 2004. 	Actions conform subject to consideration of actions specified for related recommendations.

NO.	RECOMMENDATIONS/ STATEMENT	RISK CAT.	ACT GOVT RESPONSE	RELATED RECOMMEND'NS FROM McLEOD REPORT NO.	IMPLEMENTATION ACTIONS	JUDGEMENT ON QUALITY OF IMPLEMENTATION
	<ul style="list-style-type: none"> • recommendation 22 - participation in a review of occupational health and safety legislation as it affects the proper and effective functioning of bushfire services • recommendation 29 - a commitment to rapid initial attack on wildfires • recommendation 35 - compatibility of communications equipment • recommendation 44 - exemption of volunteer fire fighters from paying firefighting levies • recommendation 48 - regular risk assessments of controlled land to ensure that bushfire-prone areas are accurately identified and suitably managed • recommendation 51 - creation of a bushfire awareness and preparedness day, similar to Clean Up Australia Day • recommendation 52 - adoption of the Australian Fire Authorities Council's 				<p>➤ <u>Rec. 52:</u> ACT had adopted AFAC's evacuation policy.</p>	

NO.	RECOMMENDATIONS/ STATEMENT	RISK CAT.	ACT GOVT RESPONSE	RELATED RECOMMEND'NS FROM McLEOD REPORT NO.	IMPLEMENTATION ACTIONS	JUDGEMENT ON QUALITY OF IMPLEMENTATION
	suggested evacuation protocol					
68	<u>The ACT Sustainable Rural Lands Group</u> That the views and concerns expressed by the ACT Sustainable Rural Lands Group be taken into account when implementing the recommendations of this report.		Agreed		The ESA has considered the issue raised by the ACT Sustainable Rural Lands Group in development of SBMP (V1).	Actions conform.
69/70	<u>An Implementation Taskforce</u> That, if he is willing to participate, Mr John Lowe be made a member of the implementation taskforce to which I refer in recommendation 70. and That a taskforce be established to give effect to the recommendations in this report.		Not agreed		ACT Government did not establish Task Force. ACT Bushfire Council allocated responsibility to implement ACT Government's response to Recommendations.	N.A.
71	That the taskforce review the extent to which the recommendations in the McLeod report have been implemented in order to ensure implementation of those not yet		Not agreed		Refer to Appendix 3 of this Report for assessment of implementation of McLeod Report Recommendations.	N.A.

NO.	RECOMMENDATIONS/ STATEMENT	RISK CAT.	ACT GOVT RESPONSE	RELATED RECOMMEND'NS FROM McLEOD REPORT NO.	IMPLEMENTATION ACTIONS	JUDGEMENT ON QUALITY OF IMPLEMENTATION
	implemented.					
72	That the taskforce review the recommendations of the seven reviews of the Emergency Services Bureau carried out before the McLeod inquiry to ensure implementation of any of those recommendations that remain relevant but have not been implemented.		Not agreed		ACT Bushfire Council has responsibility to consider the implementation of any recommendations of previous reviews.	N.A.
73	If they are willing and available to participate, that the taskforce's membership include Mr Phil Cheney, Mr Tony Bartlett, Mr Val Jeffrey and Mr John Lowe.		Not agreed		Not considered relevant.	N.A.

FRAMEWORK FOR EVALUATION

The evaluation of the quality of implementation and on-going management of the recommendations from the McLeod Report and Doogan Coronial Inquiry was undertaken using the framework detailed in Figure 2.

Figure 1: Framework for evaluation of the quality of implementation of Inquiries' recommendations

Rec. No.	Recommendation	ACT Government Response	Related Recommendation(s) in Other Inquiry Report	Implementation Actions	Judgement on Quality of Implementation
Col. (1)	Col. (2)	Col. (3)	Col. (4)	Col. (5)	Col. (6)

Columns 1 and 2 refer to the specific recommendation number and statement from the McLeod Report or the Doogan Coronial Inquiry.

Column 3 records the ACT Government's response to each of the recommendations contained in McLeod Report or Doogan Coronial Inquiry.

Column 4 records a assessment on related recommendations from either the in McLeod Report or Doogan Coronial Inquiry.

Column 5 summarises the actions implemented to date for each and where relevant incorporates comments on gaps in implementation of meeting the intent of the recommendations and/or Government's response. The information for assessments on the implementation status was in the main sourced from official documentation and discussions with members of Bushfire Council, staff and Volunteers of relevant Agencies.

Column 6 documents an assessment on the quality of implementation of recommendations and, where relevant, suggests a direction for on-going action(s) required to meet the intent of the recommendation and consistency with ACT Government's response. To assess the quality of implementation of the recommendations a standard scale approach based on three categories was employed as detailed in Table 1. Also included in column 6 is a suggestion on the ACT Agency responsible to consider the actions detailed to more fully implement the recommendation assessed as requiring major management action or supplementary management action. The suggested ACT Agency was identified following discussion with ACT Bushfire Council.

Table 1: Approach used qualitative evaluation of implementation of Inquiries' recommendations

Action(s) Conform (AC)	The actions, processes and/or system implemented by ACT Agencies to implement the Government agreed recommendations are assessed as fulfilling the intent and/or requirements of the recommendations and are consistent with the Government's response to recommendations.
Supplementary Action(s) Required (SAR)	The actions, process and/or systems employed by ACT Agencies to implement the Government agreed recommendations are assessed as partly meeting the intent and/or requirements of the recommendations and ACT Government's response to recommendations. Supplementary actions are required to be implemented by ACT Agencies to achieve the intended outcomes and/or address slippage in timing in completing specified actions. To achieve an assessment of SAR the implementation actions to deliver the intent of recommendations have been substantially implemented as at March 2009. Generally a judgement of SAR indicates significant works-in-progress.
Major Action(s) Required (MAR)	The actions, processes and/or systems employed by ACT Agencies to implement the Government agreed recommendations are assessed as requiring significant enhancement to meet the intent of the recommendations and ACT Government response to recommendations. Failure to implement additional actions will, with high likelihood, have potential to impact on control, readiness, capability and co-ordination of bushfire response.

Appendix 2. Table for management of risks

PART A. Inherent Risk Matrix - source Draft of SBMP (V2)

Likelihood	Severity				
	Very Low	Low	Medium	High	Catastrophic
> 1 in 10	Lowest	Low	Medium	High	Catastrophic
1 in 10 - 26	Lowest	Low	Medium	High	Catastrophic
1 in 20 - 30	Lowest	Low	Medium	High	Catastrophic
1 in 50 - 100	Lowest	Low	Medium	High	Catastrophic
< 1 in 100	Lowest	Low	Medium	High	Catastrophic

Category	Very Low	Low	Medium	High	Catastrophic
Very Low	Lowest	Low	Medium	High	Catastrophic
Low	Lowest	Low	Medium	High	Catastrophic
Medium	Lowest	Low	Medium	High	Catastrophic
High	Lowest	Low	Medium	High	Catastrophic
Catastrophic	Lowest	Low	Medium	High	Catastrophic

Category	Very Low	Low	Medium	High	Catastrophic
Very Low	Lowest	Low	Medium	High	Catastrophic
Low	Lowest	Low	Medium	High	Catastrophic
Medium	Lowest	Low	Medium	High	Catastrophic
High	Lowest	Low	Medium	High	Catastrophic
Catastrophic	Lowest	Low	Medium	High	Catastrophic

Table NUMBER Matrix used in the bushfire risk assessment. This matrix is consistent with Australian Standard AS/NZS 6540:2004.

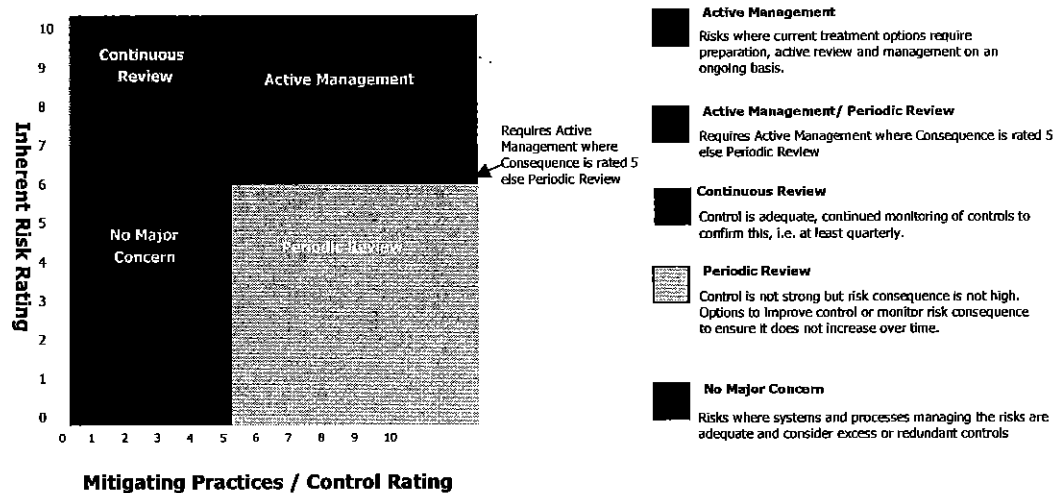
Analyse the Risks

Appendix 2 (Cont) Tools for management of risks

PART B. Effectiveness of Controls Matrix

	Rating *	Scale	Description
Excellent	Excellent	1 or 2	Risk management systems, process controls and procedures in place and can be relied upon to prevent risk materialising.
	Good	3 or 4	Risk management systems, process controls and procedures in place and can be relied upon to mitigate or detect risk materialising in most circumstances.
Moderate	Moderate	4.1 to 6	Majority of risk management systems, process controls and procedures in place. Basic risks will be controlled some of the time. However, scope exists to improve controls.
	Weak	7 or 8	Basic risk management systems, process controls and procedures in place. No guarantee risk will be controlled.
	Unsatisfactory	9 or 10	Controls do not exist or else are not operating effectively. Risk will not be controlled.

PART C. Residual Risk Table



2010

Review of ACT Ambulance Service
Positioning the service to meet future challenges



Grant Lennox, April 2010
ACT Government

Contents

Executive Summary.....	5
Strategic issues.....	7
Management Structure.....	7
Ambulance funding issues	8
Providing ambulance services in the ACT-unique service delivery model	9
Tiering the Service.....	10
Clinical Governance Improvements for the future	11
Ambulance Communications (Comcen)	11
Non-emergency patient transport.....	12
Strategies to cope with increased demand for ambulance services in the ACT.....	12
Recommendations	13
1. Managing Demand.....	13
2. Funding of ambulance services.....	14
3. Interface between ACT Ambulance and ACT Health	14
4. Ambulance Service Delivery models.....	14
5. Ambulance Education and Training	14
6. Clinical Governance.....	15
7. Non Emergency patient transport.....	15
8. Ambulance Workforce Issues	15
9. Management Team Capacity	15
Terms of Reference.....	16
Conduct of the review.....	16
Overview of the ACT Ambulance Service.....	18
Current ambulance organisational arrangements in the ACT and elsewhere in Australia	18
Historical development of ACT Service delivery model in ACT Ambulance.....	18
Pressures on the “back end” of the organisation-supporting ambulance service delivery	19
The current ambulance service delivery model in the ACT	20
Growth in scale of the ACTAS	20
Performance Audit of the ACTAS.....	21
The standing of ACTAS - national and international context.....	21
The Health Status of ACT residents and implications for ambulance service delivery in the ACT	22



Challenges facing all ambulance services in Australia 23

Particular challenges for the ACTAS..... 24

Lack of economies of scale in administration of ACTAS 24

Directions in Safety and Quality adopted across Australia’s health services 27

Issues related to funding of ambulance service provision 28

 Ambulance funding systems in other jurisdictions..... 28

 The high cost of providing high quality emergency ambulance services 30

 Review of funding methodology for ACTAS..... 31

The challenge of growing demand for ambulance services 31

 Factors influencing ambulance demand..... 32

 Health sector trends impacting on ambulance demand 33

 Monitoring demand growth 38

 Ambulance utilisation in the ACT..... 38

 Responding to ambulance demand-the Australian experience in service delivery models..... 39

 The medical evidence in support of speed of response 42

 Tiering of services 43

 Demand management strategies..... 44

 Coverage models and dynamic deployment 44

 Role of Comcen in demand diversion 44

 Managing inappropriate demand 45

 Managing peak demands 47

 Role of single responders..... 47

 Other response strategies-Fire and Patient Transport Service..... 49

Measuring Ambulance Performance 49

 Response times 49

Clinical Governance Framework 53

 The relevance of the work of the Australian Commission on Safety and Quality in Health Care to ACTAS systems and processes 53


 Proposed National Safety and Quality Framework and Discussion Paper on achieving the directions established in the proposed National and Safety Quality Framework 53

 ACT Auditor-General’s comments on ACTAS Clinical Governance framework 54

 A proposed Clinical Governance Framework for ACTAS..... 54



Four proposed pillars for ACTAS Clinical Governance Framework.....	56
Key pillars of clinical governance framework	58
Clinical effectiveness and clinical practice (2 nd Pillar)	60
Clinical risk management (3 rd Pillar)	62
Future Review of Adverse Events in ACTAS.....	64
Professional development and training (4th pillar).....	66
Cooperation and Coordination with other Emergency Services	69
The importance of linkages with the Health System	70
Non emergency Patient Transport (PTS)	72
Ambulance Comcen	76
The Medical Priority Dispatch System	79
Management Structures and Processes	79
Feedback on current systems and processes	79
Current management structure.....	81
Proposed management structure for the future	82
Clarifying the roles and responsibilities and inter-relationships of Comcen and Operational Shift Supervisors.....	83
Clinical and Education Services.....	85
Strategic Business Support.....	87
Policies and Procedures	88
Workforce Issues.....	88
Education and Training	90



Executive Summary

The ACT community is strongly supportive of its ambulance service and rightly so as it's highly trained paramedics are there to serve when the community needs those services most in times of medical emergency when lives are "on the line" and when every minute counts. The community also has a right to expect a high standard of ambulance care for every medical emergency and every traumatic incident. In striving to meet this challenge for each and every case the ACT Ambulance Service (ACTAS) has to confront challenges of ever increasing numbers of cases plus the resourcing implications of having sufficient capacity to give a timely response.


Australia's ambulance services have all progressed advances in education and training of paramedics and introduced more ambulance skills and procedures with a wider range of life saving drugs. ACTAS has kept at the leading edge of those developments in Australia. Our nation's ambulance services have changed focus from "*taking patients to health care*" to "*taking health care to patients*" with high level pre-hospital medical care now provided direct to patients and continuing until handover to emergency medical specialists in hospital Emergency Departments (ED's). Indeed the range of drugs, procedures and ambulance clinical practices substantially impact on the mortality and morbidity of emergency patients and in the management of acute and ongoing chronic episodes of care.

Effective ambulance services, including non-emergency health transport services, are also critical to the efficient functioning of the busy hospital and health system playing a contributory role aiding increased hospital throughputs and reduced lengths of hospital stay, increased day surgery and community based care of people with chronic and other health conditions safely treated at home. When super-specialist care is needed outside the ACT the ambulance service also plays a key role in transfer of high acuity patients to Australia's largest specialist hospitals.

The **increasing professionalism of paramedic care** is now progressively being recognised through transition of paramedics into health professional pay scales alongside nurses and a range of other health professionals. As this recognition is imminent in the ACT it will present yet another resourcing challenge for ACTAS.

Resourcing the delivery of safe and responsive emergency ambulance services has challenged every Australian jurisdiction in the last decade. This is evidenced by the fact that most States and Territories in Australia have recently conducted reviews of their services in some form. In some jurisdictions the Auditor Generals have carried out reviews (NSW, Queensland and recently the ACT) while in other jurisdictions reviews have been carried out through a variety of other mechanisms. The most recently completed review was in Western Australia (October 2009) which followed adverse media scrutiny of some clinical cases and clinical governance systems. Indeed several countries have also conducted reviews of their ambulance services to determine the best way forward to meet the challenges of adequately resourcing this vital front line of the emergency medical system.

There are several common key themes from these reviews including:

- 
- pressures linked to growth in demand for ambulance services and associated challenges in maintaining capacity to deliver timely responses to medical emergencies in the face of this demand growth;
 - high public expectations for safe and effective systems of emergency pre-hospital care as a vital component of the emergency medical system;
 - issues linked to increasing costs of service provision and sustainable funding mechanisms;
 - strategies to improve clinical governance and clinical review processes to increase focus on safe patient care, evidence based practice and quality improvement; and
 - the need for innovative strategies to meet the challenges of increased demand and matching resources available to changing health needs and high community expectations.

This review was commissioned to focus energies on providing options for a management structure and related strategy improvements to meet the current and future challenges.

This report will assist to better inform the ACT community about the issues and challenges their ambulance service faces and also raise understanding of **the cost of providing high quality ambulance services** into the future so that a sensible informed debate can also occur on future funding options.

Every Australian Ambulance service has faced similar challenges to ACTAS linked to growth in demand for services and its impacts on emergency response performance. These demand pressures can confidently be expected to continue as the population grows and ages and as the health system also continues to change to cope with and respond to these factors and with further advances in health diagnostic, drug and treatment technologies.

Governance, ambulance service delivery systems and funding mechanisms for ambulance services are highly variable across Australia and in some cases this is due to a combination of historical, geographical and political factors. This report covers these issues and recommends strategies for consideration to meet future ambulance service demands by the ACT community.

The ACTAS provides a high standard of service to the ACT community but like other ambulance services is being challenged to maintain emergency response performance in an environment of increased caseload. While I have made a number of suggested changes in this report to give ACTAS a platform to meet its challenges I would emphasize that **ACTAS is a long way from being a service that is in crisis.**

Rather it is a service which is under pressure in coping with increased scale and increased demand for services and lack of strong linkages to the reforms in clinical governance which have taken place in the Australian Health Care System.

As mentioned earlier many of the challenges facing ACTAS are consistent with the experience elsewhere in Australia but in a number of respects ACT is ahead. The ACT has the second lowest per capita usage of ambulance services in Australia which points to a healthier, well educated population and less inappropriate community use of emergency ambulance services. ACTAS and the Tasmanian Ambulance Service, both of which have higher proportions of staff trained to Intensive Care Paramedic (ICP) level,

have both empowered their operational ambulance personnel for many years to “treat and leave” or “treat and refer” patients to alternate clinical pathways.

This is evidenced by ACTAS having the lowest levels of triage category 4 and category 5 patients taken to hospital ED’s (and Tasmania the 2nd lowest). In comparison a number of other States have much higher per capita usage of ambulance services and significantly higher low acuity patients taken to hospital ED’s. In those other States this is an added burden on hospitals of patient groups which could be more appropriately treated by GPs or other health services and which add to “access block”, and also cause low acuity patients to have long waits consistent with their low health care needs.

In this context ACTAS has already achieved what many other ambulance services aspire to in reducing a high burden of inappropriate demand by low acuity patients.

Strategic issues

The particular areas where the ACT Government and ACTAS’s new management structure need to focus effort to improve the provision of ambulance services to the ACT community include:

- a more equitable and sustainable funding model for the longer term;
- future budgetary provision for ambulance services which reflects demand pressures and cost drivers by applying the “health budget factor” to ambulance funding;
- additions to the current model of service delivery which are consistent with other ambulance services to manage the impacts of demand growth and achieve cost and clinically effective pre-hospital care;
- enhancing systems of clinical governance to give added emphasis to safety and quality in a framework consistent with mechanisms already agreed upon for the Australian health system;
- strengthening the role and capacity of ambulance communications (Comcen) recognising the functions undertaken by Comcen as an integral component of service delivery and the first point for tactical and strategic management of demand for services;
- maximizing the public interest through cooperative arrangements with other emergency services and with ACT health;
- improved management structure and process; and
- strengthening focus on performance of the service and its staff (at all levels).

Management Structure

In the body of this report I detail options to improve the management structure to cope with current and future challenges which include:

- growth in the scale of the service to meet significant increases in ambulance utilisation with more staff, more service delivery locations, greater complexity and additional areas of service delivery (non-urgent patient transport and helicopter operations, CBR and USAR capability etc);
- a lack of economies of scale in management, supervision and administration;
- an over-reliance on portfolio arrangements added to rostered supervisory personnel to progress major issues;

- changes to delivery of ambulance education nationally with more universities offering pre-employment educations for paramedics;
- expectations for all health services to have strong clinical governance systems to protect safety and improve quality;
- expected future growth in demand for emergency and non-urgent health transport; and
- higher pay rates for ICP's.

The structure I propose has the following features:

- elevation in importance of management of ambulance Comcen within the management structure including a 24 hour a day advanced clinical presence in the ambulance Comcen;
- strengthening of operational management through 24 hour shift supervisors /duty managers who carry no portfolio responsibilities but who manage day to day emergency operations;
- realignment and strengthening of strategic business development;
- greater use of non-rostered staff at middle management level to:
 - drive development and implementation of policies and procedures;
 - strengthen clinical governance systems;
 - manage major projects with the impending implementation of the VACIS system being a critically important project;
 - ensure effective integration (operations, operational support, education and training, rostering, occupational health and safety and Comcen) within ACTAS to support effective service delivery for both emergency and non emergency operations;
 - improved continuity of staff supervision noting that middle managers will be freed up from day to day operational management after introduction of 24/7 shift supervisors and Comcen clinicians; and
- a linking of all the components of clinical governance within an overarching framework which is readily understood by staff at all levels.

Ambulance funding issues

The ACT Government needs to consider how it should deal with funding of the ambulance service budget into the future in recognition of the fact the cost drivers for ambulance provision are very similar to those for provision of acute hospital services. The funding model ideally should provide greater funding certainty to an essential area of government service provision facing genuine demand pressures for emergency pre-hospital care.

Other reviews of ambulance service funding have found merit in applying a "health growth factor" to ambulance service provision as a means of providing greater funding certainty while recognising cost and demand pressures which exceed CPI indexation movements applicable to other areas of government service provision.

I also contend that the ACT's current system of reliance on voluntary (i.e. non-compulsory) ambulance insurance arrangements is not sustainable in the longer term for a front-line element of the emergency

medical system. This view is evidenced by the high level of bad debts associated with every ambulance service with a similar system. It also recognises that demand for ambulance services will continue to rise substantially for the foreseeable future to the extent that reform to current revenue arrangements will be required to ensure sustainable funding levels to meet these pressures and the added costs of professional recognition of paramedics.

It is noted that the CAA commissioned a review of factors in ambulance demand and options for sustainable funding models which was carried out by Latrobe University's Australian Institute for Primary Care in 2007. This report found that:

- real revenue for ambulance services is not keeping pace with demand for ambulance services;
- variations in the mix and sources of ambulance revenue across Australian jurisdictions has significant implications for the sustainability and equity of services;
- Australia does not have a nationally consistent approach to funding and delivery of ambulance services and there are significant risks to the medium and long term capacity of ambulance services to meet demand pressures; and
- imposition of an additional Medicare levy component of 0.3% would provide sufficient funds for all Australian ambulance services at a 2007 cost of \$3.30 per week for a person on average all-time weekly earnings.

Noting the research undertaken by Latrobe University, the ACT Government should consider the viability of consulting with other State and Territory governments and the Australian Government in the future to pursue the Medicare funding option as the most equitable, efficient, sustainable and administratively simple option for the longer term or consider an alternate Territory level funding model i.e. a compulsory ambulance specific levy.

Providing ambulance services in the ACT-unique service delivery model

In ambulance service delivery terms the ACTAS is unique in its service delivery model of an all intensive care system. It is advantaged in serving residents living in a planned city of between 300,000 and 350,000 people which has good road systems connecting suburbs with only a very few people living in smaller rural communities. In contrast larger ambulance services in other Australian jurisdictions are required to serve both urban and rural residents, with added challenges of distances for significant proportions of the population and lack of economies of scale in providing cost effective services in smaller rural and regional communities.

ACT does have a notable disadvantage in a lack of economies of scale in its administration, planning and management which has led to a number of "portfolio" and other arrangements to manage the increasing demand and complexity. Many of these arrangements have been under increasing pressure and some improvements are recommended to enable clearer lines of responsibility and accountability. ACTAS has built its emergency capability on a framework of every member of emergency operations progressing to the ICP skill level which is the highest skill level in the ambulance industry. This service delivery model is **unique not only in Australia** but also in Commonwealth (UK, Canada and New

Zealand) and European countries and there are possibly only one or two similar service delivery models in existence anywhere in the world. While this is a source of pride to ACTAS, the community and the Government it is now time to review the current service delivery model to provide a cost effective **and sustainable** service model which is reflective of the substantial growth in demand for ambulance services and relevance of cost, cost effectiveness and value for money considerations for all government services.

The service delivery model must:

- meet service provision needs based on clinical effectiveness and cost effectiveness;
- be reflective of what the community is willing to pay, noting that the level of public insurance for ambulance services is not optimal and costs will need to increase to cover the impending work value claim for ICP's; and
- be sustainable in terms of capacity to recruit, train and retain a clinical workforce which maintains up to date clinical skills in the face of expected turnover as the baby-boomers exit the workforce.

ACTAS itself has added to the service delivery model with the introduction some years ago of a non-emergency patient transport service thus giving it a two tier model. In comparison the common approach to tiered models of service delivery in almost every other modern ambulance service in the world is to have a paramedic (clinical level below ICP i.e. Advanced Life Support) level and there is also increasing use of highly qualified single responders to cover peak periods of demand.

This report recommends introduction of a paramedic level of care (the most common level of ambulance service provision internationally in developed countries) as an immediate initiative and consideration for future introduction of a single responder paramedic practitioner level.

There are also some consequential suggested changes recommended to ACTAS's education and training strategies to improve sustainability and reflect the introduction of a paramedic level service delivery tier and to reflect similar educational strategies to those in other ambulance services in Australia and to other health professional groups.

Tiering the Service

With the additions of non-urgent patient transport service and the helicopter service, crewed by medical staff and ICPs, ACTAS currently has three tiers in its service delivery model. The concept of considering the introduction of a paramedic tier to the service delivery model is supported by a number of factors including:

- increasing demand growth;
- national changes in the direction of ambulance education towards pre-employment tertiary training;
- challenges related to sustainable funding and increased costs of ICP level care;
- the capabilities of the paramedic level of skilled ambulance practitioner to meet a large proportion of ACTAS's current workload; and

- recruitment and retention factors.

This extension to service delivery was raised by stakeholders in discussions several times reflecting that many recognise the need to consider this direction.

Clinical Governance Improvements for the future

The recent inquiry in ambulance provision in Western Australia made the very pertinent point that *“an ambulance service can do things right nearly all the time but still be criticized when mistakes occur because of the grave consequences”*.

Modern pre-hospital emergency care involves a range of drug and invasive procedures which are not without risk if not used with due care and skill. The nation’s Health Ministers have set and agreed upon some specific directions to monitor and improve the quality of care provided by increased emphasis on safety and quality strategies. ACTAS needs to strengthen its clinical governance systems directly in line with these health system strategies. These strategies are already well documented in the context of the Australian Health Care System and are reflected in a number of systems and strategies developed and implemented in ACT Health. I commend the adoption of these in ACTAS and I have proposed a framework and a number of specific initiatives based on these national health system changes to strengthen ACTAS’s clinical governance framework.

Given that ACTAS is positioned outside the health portfolio it will need to further enhance its linkages with ACT Health in the areas of clinical governance and safety and quality considerations to give due regard to initiatives linked to safe clinical practice and clinical quality improvements. It is fair to say that a number of ACTAS staff have identified this need and are working towards this goal. Accordingly considerable attention is devoted to this topic in the Clinical Governance section of this report and existing elements of ACTAS’s systems are drawn together into a more comprehensive framework.

Ambulance Communications (Comcen)

Emergency medical care starts right from a ‘000’ emergency call being answered in the Ambulance Comcen where calls are rapidly triaged, crews dispatched and vehicles monitored en route by automatic vehicle location technology. In some cases, pre-arrival advice given by trained ambulance Comcen officers saves lives (*“hear and treat”*) before arrival of an ambulance crew.

The combined Emergency Services Agency (ESA) Comcen is a vital component of all ACT’s emergency services:

- receiving 000 and other calls for assistance;
- assessing /triaging thousands of calls;
- providing important pre-arrival advice which can save a life or reduce health risks;
- dispatching emergency responses to the right location and monitoring the progress of crews to incidents; and
- keeping hospitals informed of impending arrivals of seriously ill and multiple patients.

The Comcen could improve its capacity to handle peak periods of demand for both fire and ambulance services by placing added emphasis on interoperability by all Comcen staff.

The shared Computer Aided Dispatch (CAD) system already in place creates the platform to enable this. The addition of enhanced training capacity for Comcen which is recommended will create greater opportunity for this to be achieved. For ambulance service delivery this would mean that at a peak period of ambulance demand a fire Comcen officer could not only lodge the case in the CAD system but also use the system to give potentially life-saving pre-arrival advice if ACTAS Comcen staff are on other calls. Such a change would require engagement with all of the services on a way forward to achieve such a model which would be in the public interest.

The ACTAS section of the ESA Comcen is feeling the strains of managing the growth in ambulance caseload and this report identifies a number of strategies to strengthen this vital "nerve centre" so that it can properly support both emergency operations, non emergency operations, aero medical services and its administrative functions all of which proves critical to the effective functioning of front line delivery of services and the ACT Health system. The improvements recommended include clinical input into decision making, improved alignment of management responsibilities and additional system enhancements.

Non-emergency patient transport

The non-emergency patient transport service is a vital service enabling the effective functioning of the hospital and health care system and it supports strategies ranging from increased day surgery rates to increased numbers of people able to be cared for in their homes with chronic and episodic health issues. It aids movements of patients to access high level diagnostic and day treatments, effective hospital bed management strategies particularly during peak demand periods and also smooth functioning of residential aged care services.

This report recommends retention of this service within ACTAS, and whilst noting the comments by the ACT Auditor-General, reaffirms the ACTAS strategy of the use of its non-emergency patient transport capacity to provide a first response service to occasional emergencies at times of caseload peak when there will otherwise be a delayed ICP or paramedic level response. The report also recommends improved focus on refresher training for Ambulance Support Officers (ASO's).

Strategies to cope with increased demand for ambulance services in the ACT

Having regard to a range of factors and the data examined during this review relevant to station location and operational movement /coverage strategies **the most realistic ways of achieving response performance improvements are to:**

- increase crewing levels with a predominate focus on the times of peak caseload therefore strengthening existing demand rostered models used by the ACTAS; and
- making greater future use of single officer rapid response strategies also focused on caseload peaks but adding value to this role by involvement in 'real time' clinical audit and monitoring of quality patient care.

Accordingly, I would recommend that the ACT government plan increasing the capacity of the ACTAS in front line operations with a predominate focus on the times of peak caseload informed by further review of existing deployment strategies, utilisation rates and recognising the growing requirement to increase resources to address increasing response times.

In summary the "front line" of emergency ambulance provision in the ACT has an enviable reputation based on its high level of clinical service provision underpinned by a body of skilled ICP's. ACTAS faces a number of challenges in providing high quality and safe clinical care to every emergency in a timely manner and these challenges are dominated by three factors:

- escalating demand and its impact on response capacity, response performance and cost of service provision;
- a lack of economies of scale to manage the service which is challenging planning, clinical governance and systems for monitoring and evaluating provision of safe clinical care and quality improvement processes; and
- a funding model which is not keeping pace with demand.

I believe the recommendations which follow will provide a foundation for the future to ensure ACTAS continues to provide the high quality ambulance services expected by residents in the ACT.

Recommendations

Specific recommendations to address issues identified in this review are as follows:

1. Managing Demand

- **Strengthen the Comcen as recommended** to cope with the increased demand for ambulance services being experienced (and which will continue to increase as the population grows and ages) and to ensure each and every 000 emergency call receives high quality call handling which includes consistent call triaging and pre-arrival clinical advice (*hear and treat*) and effective dispatch decisions.
- **Strategies to cope with growth of ambulance demand should include the Comcen playing a stronger role in the diversion of demand through addition of clinical oversight in the Comcen and development of policies and procedures to refer carefully selected cases to more appropriate** alternate services (i.e. not ambulance care **and transport to a** hospital emergency department).
- **Continue with ACTAS ICP personnel using Transport Not Required (TNR) practices**, but within clear policy parameters set by ACTAS policy to minimize risks to patient safety.
- **Maximize opportunities** for cooperation and coordination between emergency services by enhanced interoperability by all services Comcen staff.
- **Explore the implementation of secondary triage software** within the existing CAD system to enhance and provide additional governance to the role of all ACTAS Comcen staff.

- **Consider enhancing** frontline ambulance resourcing levels through budgeting for additional overlapping paramedic level shifts per day focused on times of caseload peak between 7am and 11pm.

2. Funding of ambulance services

- **Apply a "health growth factor"** to the funding of ambulance services in the ACT to recognise that the cost drivers for ambulance are very similar to those of acute hospital provision. This methodology will provide greater funding certainty to an essential area of government service facing escalating demand.

3. Interface between ACT Ambulance and ACT Health

- **Strengthen existing linkages with various components of ACT Health at the clinical practice interface including safety and quality and clinical governance components** in recognition that the ACTAS is the emergency pre-hospital care and patient transport arm of the ACT's Emergency Medical System.
- **Work with ACT Health on demand forecasting** noting the high correlation between ambulance and hospital ED demand and the expertise of ACT Health staff working on **this area who have access to detailed data of health status indicators** and trends likely to impact on future ambulance demand levels.
- **Liaise with ACT Health on strategic health system issues** to ensure that the impact on ambulance services are fully considered when health policy and service delivery changes are made.

4. Ambulance Service Delivery models

- **ACTAS should consider the introduction of a paramedic service delivery tier** to the ACTAS operational response framework into the future to achieve a mix of ICP and Paramedic level crews to:
 - cope with ever increasing ambulance caseload; and
 - improve retention.
- **Add future scope for a paramedic practitioner or clinical support officer** above ICP as single responders with dual roles of rapid response to life threatening emergencies (particularly at peak demand periods) and real time clinical audit and on-road clinical training.
- This would **complement its current two tier model** which consists an ICP tier and a non-emergency patient transport tier plus an aero medical service crewed by medical personnel and ICPs. This will then bring ACT into line with service provision models in all States and Territories but still leave ACTAS having the largest proportion of cases responded to at ICP level of all jurisdictions.

5. Ambulance Education and Training

- **Redesign ACTAS's education and training strategies** to provide for a step point at paramedic level without any compulsion for an employee to progress to ICP level.

6. Clinical Governance

- ***Draw together existing components of the ACTAS clinical governance framework and embed them into a framework directly consistent with the national strategic framework for safety and quality in health care*** promoted by the Australian Commission on Safety and Quality in Health Care established by Australia's Health Ministers.

7. Non Emergency patient transport

- ***ACTAS continue to manage non emergency patient transport services into the future as it remains in the public interest for ACTAS to have ready access to the surge capacity afforded by ASO staff (called non emergency patient transport staff in other jurisdictions) and vehicles*** in the event of major, multi-casualty incident which is especially important in a small service.
- ***Take steps to more effectively manage the inherent difficulties associated with the current design of the dual role of the ASO*** by giving consideration to the establishment of separate positions of patient transport service officer and Comcen call taker /dispatcher.

8. Ambulance Workforce Issues

- ***ACTAS should develop a workforce plan which aligns with and supports its education and training strategy*** including recognition of:
 - possible introduction of a paramedic level; and
 - allowing for a longer period for graduate paramedics to consolidate their independent practice before they are able to apply for progression to the ICP level.

9. Management Team Capacity

- ***As an overriding observation I believe that many of the issues raised in the 2009 ACT Auditor-General's Performance Audit report remain indicative of the headquarters end of the business struggling to cope with the greater scale and level of activity of the organisation.*** ACTAS should:
 - create the necessary capacity at General Management level of the service to enhance, monitor and review critical business support systems, policies and procedures, planning and data analysis, incident monitoring and evaluation activities with particular reference to key areas supporting front line operations including operations, Comcen and strategic business support;
 - introduce shift supervisor positions to handle all day to day issues arising on their shift-with shifts overlapping with the roster pattern for operational staff; and
 - add a senior ICP presence in COMCEN 24 hours a day to strengthen tactical decision making and to assist in clinical management of demand at the "primary community interface point".

Terms of Reference

This review of the ACTAS has been carried out under Terms of Reference set by Mr Simon Corbell, MLA, Minister for Police and Emergency Services against a background of:

- growing ambulance demand with predictions of further demand growth necessitating a need to review the service's capacity to deliver good operational and clinical outcomes;
- a strong Government commitment to ongoing development of ambulance services reflected by increased funding to strengthen the service's capacity and imminent conclusion of a work value claim recognising ambulance officers as a profession;
- a Performance Audit on the Delivery of Ambulance Services to the ACT community by the ACT Auditor-General which identified a range of operational pressures and areas requiring additional focus to best meet the current and evolving needs of the community;
- re instigation of separate Chief Officer positions for each emergency service which comprise the ACT ESA and a need to consider the ACTAS management structure in light of this;
- renewal of the clinical governance framework to provide it with an organisational platform for the future;
- a need to review the current funding model and the existing capacity of the service to meet future evolving needs of the community; and
- a desire to improve coordination of effort and cooperation between the emergency services.

Conduct of the review

In the preparation of this report I have drawn initially upon my knowledge base of the ambulance industry nationally gained through:

- my former role as CEO of an interstate ambulance service (Tasmania) over the last 15 years;
- my former membership of the Board of the CAA, (the peak body representing the principal statutory providers of ambulance services in Australia, New Zealand and Papua new Guinea) which also included membership of the CAA's Strategic Business Advisory Committee, extensive involvement in developing benchmarking systems for the Australian ambulance industry and liaison with overseas ambulance managers;
- former membership of the Productivity Commission's Emergency Management Working Group from its inception in 2001 until April 2009 which prepared the Emergency Management Chapter (covering ambulance, fire services and road rescue services) in the annual Report on Government Service Provision covering performance of all Australian fire and ambulance services in Australia;
- liaison with ambulance leaders from the UK, Canada, New Zealand, USA and some South East Asian and Middle Eastern countries;
- through CAA activities;
- through visits of officials to Australia;
- through attendance at two meetings of the International Roundtable on Community Paramedicine;

- through ongoing interchanges of information with overseas ambulance leaders /managers;
- my 38 year career in the health sector, which has included other senior roles in hospital management at CEO level, health policy and leadership roles in mental and primary health services and rural health; and
- membership of the Australian College of Health Services Executives (extended periods as State Branch President and Federal Councilor), Certified Health Executive and most recently awarded Life Membership of the Australian College of Health Services Executives.


I have also benefitted from face to face discussions with a cross section of stakeholders in the ACT including:

- the Minister for Police and Emergency Services;
- staff of the ACTAS covering senior and middle management responsible for ambulance emergency operations, clinical services, Comcen, non-urgent patient transport, operational support, aero medical services, events & planning and finance /data analysis;
- industrial representatives of the Transport Workers Union who also provided consolidated information from a wider cross section of union members;
- senior executives of the ESA including the ESA Commissioner, Chief Officer (ambulance) and heads of ACT's other emergency services including the ACT Fire Brigade, State Emergency Services and ACT Rural Fire Service;
- staff of ESA in the areas of Risk Management and Comcen coordination;
- senior corporate staff of the Department of Justice and Community Safety; and
- staff of the ACT Auditor-General's Office who were involved in the 2009 Performance Audit Review of ACTAS.

I also had telephone contact with:

- the Chairperson of the ACTAS Clinical Advisory Committee;
- senior representatives of the ACT Branch of the Australian College of Ambulance Professionals;
- ACT Treasury staff dealing with issues related to the Grants Commission relativity reviews;
- staff of other ambulance services who have worked in ACTAS including a senior representative from Ambulance Victoria who had a 3 month secondment to ACTAS in mid 2009;
- staff in several areas of ACT Health particularly covering:
 - medical specialists across emergency medicine and intensive care including Directors of Emergency Departments of Canberra and Calvary Hospitals ; and
- staff involved in ACT Health projects which interface with ambulance service delivery including the Priority Access to Treatment and Acute Coronary Syndrome projects.

I have also reviewed high level strategic ambulance service delivery documents from other Australian jurisdictions and from the UK and contacted senior colleagues currently involved in leadership of ambulance services in the UK, Canada and the USA. I have also had access to a range of documentation from the various stakeholders and I thank them all for their frank, honest and constructive input to this review. Very clearly, they all share a high regard for provision of a high quality ambulance service to the



ACT community and for service and system improvements which will further improve the service into the future.

Overview of the ACT Ambulance Service

Current ambulance organisational arrangements in the ACT and elsewhere in Australia

The ACT *Emergencies Act 2004* covers the roles and responsibilities of the ACTAS as well as the other emergency services which comprise the ESA. Each service of ESA has its own Chief Officer which is a change from its previous leadership arrangements which saw two Deputy Commissioners exercising the powers of the four Chief Officers. The agency falls under the ACT Department of Justice and Community Safety.

Ambulance Services in all other States and Territories except Queensland are linked to the State health authority and are under the Ministerial responsibility of the Minister for Health. In Queensland the ambulance service is part of the Department of Emergency Services and there is a joint policy document with the State's health authority linking the ambulance service with other components of the State's Emergency Medical System.

Historical development of ACT Service delivery model in ACT Ambulance


The ACTAS embarked upon a single tiered ambulance service delivery model in the mid 1980s with every operational staff member trained (or progressing) to the highest ambulance skill level of ICP. No other Australian ambulance service adopted a single tiered model of service provision at that time with all other services having at least two tiers of service provision but all progressively adding more service level tiers.

Every Australian ambulance service has experienced very significant growth in ambulance demand over the last decade and this demand growth pattern will continue into the future for reasons outlined later in this report.

Ambulance caseload has grown significantly year upon year over the last 20 years as the population of the ACT has increased (and also aged) and became more dispersed geographically with growth in outer suburbs along a central urban spine running through the Territory. This has impacted upon the service's capacity to respond in a timely manner to all life threatening emergencies.

To maintain community safety, service provision has also been extended by adding:

- more emergency crews;
- more response locations;
- a helicopter response capability which provides primary and secondary medical retrieval (in collaboration with NSW), jointly crewed by ACTAS ICP's and flight physicians from The Capital Region Retrieval Service enabling safe transport of the highest acuity patients needing to be moved to tertiary receiving hospitals in Sydney for super-specialist services;

- 
- a non-emergency transport service which focuses on non-emergency and routine health transport cases but which adds first response capacity to aid emergency operations at times of peaks in caseload; and
 - additional clinical skills to keep pace with health care advances.

Pressures on the “back end” of the organisation-supporting ambulance service delivery

While the “front end” service delivery of ambulance service has grown over the last 25 years the management structure and key “back end” have struggled to cope with the burdens of:

- a larger scale of operations (more cases, more staff, more stations, more services) with associated supply, logistics issues and OH&S challenges;
- an ever increasing education and training workload to meet the advances in clinical care, the range of modern drugs, invasive skills and procedures and more sophisticated medical equipment;
- staff growth;
- “churn” factors of some staff recruited from interstate leaving after receiving the higher skills offered in the ACT to advance their careers in their home states where less paramedics are trained to ICP level;
- new risks linked to the threat of terrorism, chemical, biological and radiation incidents, urban search and rescue (building collapse);
- managing impacts on staff of;
 - more workplace risks;
 - industrial concerns regarding fatigue, including missed meal breaks;
 - workplace stresses for staff coping with the “ills” of modern society reflected in a caseload mix which includes road trauma, drug and alcohol abuse, mental disorders, violence, suicide, domestic violence, sexual assaults, severe obesity; and
- associated and ongoing revision of policies, procedures and processes due to these changes and emergency management responsibilities.

Effectively the ACTAS has grown through several stages. It has progressively moved from a small organisation where the Director and the Clinical Manager could effectively manage a small, dedicated workforce like a “family business”, knowing every staff member and being aware of all issues because of the small scale of operations. It has progressed through growth spurts to its front end service delivery to become a larger organisation but its structure and resourcing of “back room” business, management and support services is now under pressure.

ACTAS has never lost focus on its core business. In fact it has placed overwhelming emphasis on delivery of high quality emergency services to the public to the detriment of workload levels carried by senior and middle managers. Notwithstanding the ACT Auditor-General’s identification of deficiencies, these have not detracted from the fact that residents of the ACT receive first rate ambulance services from highly skilled and well resourced ICP’s.

The current ambulance service delivery model in the ACT

The ACTAS provides a very high standard of emergency pre-hospital care to the residents of Canberra having operated at ICP level (the highest ambulance skill level) for over 20 years. This very high level of clinical service provision for virtually every ambulance response in a city is unique and unmatched in any city in Australia, New Zealand, the United Kingdom, and Canada. The common models of ambulance service delivery in cities in advanced western countries involve “tiered services” with a mix of Paramedic and ICP crews.

The nomenclature for ambulance personnel varies between countries as does the level of education and training. In terms of the level of theoretical knowledge underpinning clinical practice Australia’s ICP’s are at a very high standard internationally. This means that the “average” ambulance response to all types of ambulance cases in the ACT involves very highly clinically skilled ICP’s. In contrast most other cities have an ICP level response commonly to less than 30% of ambulance cases which reflects that ICP level skills are utilized in less than 25% of ambulance responses.

It is also fair to say that the modern day paramedic level of care (the level below ICP) in Australia is above the level of the former ICP or Advanced Life Support level (NSW) of the late 1970s and early 1980s in terms of underpinning theoretical knowledge. Some States only added the ICP level to their service delivery mix in the last decade and a half whereas the ACT, like Victoria and Tasmania has a much longer history of ICP level ambulance service provision.

The ACTAS added a second tier of ASO’s more commonly termed Patient Transport Officer in other States to focus on routine transport of non-emergency cases. To address issues of lack of economy of scale the ASO role was combined with ambulance Comcen so ASO’s rotate through non urgent patient transport and Comcen officer duties.

Growth in scale of the ACTAS

In an attempt to maintain timely response capacity ACTAS operational response resources have progressively increased. The services growth in capacity has lagged behind increasing demand. The growth and ageing of the ACT population which have driven demand have added to the challenges created by the spread of urban development over a much larger area. This combination of factors has affected response performance. The service now has to cope with growing numbers of:

- medical emergencies;
- urgent cases (cases which although not immediately life threatening have potential to become life threatening unless treatment is received);
- cases with specialised health transport needs including transport of high acuity patients between hospitals and to larger tertiary hospitals interstate for highly specialized medical treatment; and
- non emergency cases-which are important for the effective functioning of a modern hospital and health system. These include transport of patients undergoing elective procedures, early discharges from hospitals for patients whose care will continue in their homes with community

based health services and for movements between residential aged care and other health facilities and public hospitals for day treatments and diagnostic procedures.

The Australian public has rated the emergency care components of the health system emergency ambulance care and transport, emergency surgery etc as the most important component of the health system. Community expectations are for every ambulance service to be able to respond rapidly to genuine emergencies.

Performance Audit of the ACTAS

The 2009 ACT Auditor-General's Performance Audit Report on the ACTAS identified a range of issues and concerns covering:

- deficiencies in level of detail or focus in business plans and performance management framework;
- insufficient guidance for the ambulance service in the ESA strategic plan (which covers all the emergency services);
- aspects of response times and response strategies during peak periods such as re prioritising responses, and non ICP responses such as dispatching a fire or ASO crew;
- insufficient use of data to guide demand forecasts and management of crews according to peaks in demand by location or time of day;
- lack of documentation on some frameworks, policies or procedures on areas such as;
 - clinical governance;
 - feedback mechanisms;
 - transport not required (TNR) and refusal to send decisions;
 - risk management;
 - non-emergency patient transport;
 - delays in reviewing some existing guidelines or policies that do exist; and
- failure to fully monitor, measure, review or effectively follow up some factors or issues.

In recent years several other Australian Ambulance services have also been subject to performance audit reviews in their own jurisdictions as governments recognise that ambulance services are under increasing pressure to meet response targets in the face of ever increasing demand for services. Governments are also monitoring the impact of additional resources allocated to ambulance services to determine whether funding injections (such as the 30 additional staff funded for the ACTAS) have improved capacity to deliver safe and timely care for medical emergencies.

Throughout this review report I provide comment on some of the key issues raised in that Performance Audit report and place some of those comments into a wider perspective.

The standing of ACTAS - national and international context.

Firstly it is important to acknowledge that at the "front line" of service provision the ACTAS has an enviable national reputation based on its high level of clinical service provision underpinned by a body of well trained and skilled ICP's.

The standard of education, training and range of clinical skills of ACT's ICP's generally ensures a very high standard of pre-hospital emergency care to residents of the ACT.

ACT residents have ICP level ambulance care available for almost every initial emergency ambulance response with approximately 98% of cases responded to at ICP level. The only variation is at occasional peak periods when the first response is either fire personnel or ASO's who can then be "backed up" by ICP level response.

This is an exceptionally high proportion of ambulance responses at ICP level which is unmatched in any other Australian, New Zealand or UK city and it is extremely rare internationally for reasons of:

- clinical and cost effectiveness of tiered systems of response;
- education and training issues; and
- caseload exposure issues to maintain a high level of skill and proficiency for the most complex skills /procedures used infrequently.

Few major cities have an ICP level initial response to even 30% of emergencies and this is reflective of the fact that a similar or lesser proportion of ambulance cases involve the need for ICP level interventions (the full range of drugs, invasive skills and procedures etc).

The Health Status of ACT residents and implications for ambulance service delivery in the ACT

The ACT community enjoys a high level of health status compared to the rest of Australia. This is a key factor in the ACT having a lower per capita usage of ambulance services than other States and Territories.

The ACT's Chief Health Officer (CHO) indicates that the prevalence of chronic disease is increasing in the ACT due to the ageing of the population and a variety of lifestyle factors that contribute to the burden of chronic disease.

The CHO advises that chronic disease will persist as the leading cause of the disease burden, with cardiovascular disease, cancer, diabetes, chronic respiratory and musculoskeletal conditions expected to account for more than half (52%) of the disease burden in the ACT by 2023.

The CHO also notes that life expectancy in the ACT is high in comparison to other jurisdictions and that the median age of death increased from 73.3 years to 78.5 years from 1995 to 2005.

The demographic profile of the ACT population and projected population shifts will have implications for ambulance services in the ACT as well as for other health services.

The approximate residential population of the ACT was 324,000 at the 2006 census but by 2016 it is expected to rise to 353,000 with most of the population change occurring in older age groups. People over 65, as a proportion of total population is projected to increase from 9.7% at last census to 14.3% by 2016 and there will also be a decline in the 10-24 age group.

The good current health status of the ACT is reflected in lower per capita ambulance usage compared to other States but the ageing of the ACT population and the growing burden of chronic disease will both have very significant impact on the future levels of demand for ambulance services.

If the ACTAS is to maintain timely response capacity to medical emergencies into the future to match demand growth then it will need additional resources. The ACTAS will also need to work with ACT Health to jointly determine strategies to manage the growing burden of chronic disease. This recognises that highly skilled ambulance professionals have capacity and skills to play an increasing role in primary health care for the benefit of the community and for the effective working of the entire health system. This potential will be explored in the section dealing with future strategies.

Challenges facing all ambulance services in Australia

The ACTAS faces some significant challenges, most of which are similar in every State and Territory. The challenges it shares with other ambulance services are:

- increasing growth in ambulance demand year upon year which has numerous implications including:
 - higher levels of crew utilisation and less down time;
 - greater challenges in responding to every emergency in a timely manner with longer response times to some cases, more operational coverage movements of urban crews at peak caseload times to reduce risks of delayed responses;
 - increased staff fatigue through operational personnel going from case to case to case with missed meal breaks common for all urban ambulance services in Australia;
 - more cases at night which creates challenges in safe clinical practice and safe driving on emergency classification with staff fatigue levels increasing on 14 hour night shifts;
 - higher costs to provide services with increased costs of medical supplies and greater wear and tear on ambulance vehicles, more expenditure on fuel etc;
- the need to support changes in hospital and health service delivery including more people with chronic illnesses cared for at home, shorter hospital stays and earlier discharges from hospital, greater volumes of elective surgery and a greater range of modern medical diagnostic and treatment services;
- increased presentations to hospital emergency departments causing delays in capacity of hospital staff to take over care of ambulance patients due to the volume of total cases they have at peak times which diminishes ambulance emergency response capability;
- a need to keep pace with improvements in medical treatment and technologies so that ambulance care reflects best practice, drugs, medical equipment and clinical procedures;
- a need to develop and maintain some additional specialist capabilities, some of which have arisen from the increased risk of multi-casualty incidents post September 11 2001 including counter terrorism (CT), chemical, biological and radiological incidents (CBR) and urban search and rescue (USAR) capability (rescue of patients entrapped in fallen buildings);

- rising community expectations of the total health system partly “fed” by medical dramas on television and current affairs segments on miracle cures;
- expectations about very high cost aero-medical transport capability to cope with responses into rugged terrain and serious incidents including road trauma at a distance from hospitals;
- the need for systems to transport high acuity patients between hospitals;
- occupational health and safety challenges for staff providing care in the “front line” including:
 - risk of injuries handling obese patients;
 - increased exposure to incidents linked to alcohol and drug consumption and violence; and
 - the stresses of front line emergency operations in modern cities with ambulance personnel facing numerous situations ranging from trauma, injuries and abuse to children, domestic violence, drug and alcohol abuse, incidents of self harm and suicide etc.

Particular challenges for the ACTAS

Lack of economies of scale in administration of ACTAS

The Commonwealth Grants Commission recognises that the three smallest jurisdictions in Australia the ACT, the Northern Territory and Tasmania are all disadvantaged in the costs of managing a range of essential public services such as health, education, ambulance and police services compared to the larger and more populous States because of lack of economies of scale in policy, planning and administration.

In the 2004 Review, the Commonwealth Grants Commission recognised two types of scale disabilities:

- administrative scale — these disabilities recognised costs due to diseconomies of small scale in central administration; and
- service delivery scale — these disabilities recognised costs due to diseconomies of small scale in service provision.

Administrative scale is an important issue for the less populous States and Territories such as the ACT. Scale disabilities are assessed by the Grants Commission to recognise differences in the per capita costs of operating the basic administrative structure required to be a State or Territory and to provide essential public services.

The conceptual case for assessing scale disabilities is based on each State or Territory being a sovereign entity that needs to establish and operate a basic administrative structure to provide the full range of State type services to their populations. This basic structure comprises costs associated with the core head office functions of departments (for example, corporate services, policy and planning functions etc).

The cost of establishing and operating a basic administrative structure is both:

- a fixed cost — each State or Territory incurs the same cost. The cost does not vary with the size of the State or Territory, its population or its service delivery task; and

- a minimum cost — it is the cost each State or Territory must incur before a unit of service is produced.

Translating this dilemma into context, the ACTAS management structure faces bigger challenges in cost effectively providing a wide range of administrative and business support services, policy, planning and project management functions compared to larger ambulance services.

In my opinion this lack of economies of scale has resulted in some features for the ACTAS which are also common to ambulance services in Tasmania and the Northern Territory. Most relevant to this review are:

- pressures on management to cope with a wider range of issues concurrently resulting in a “grab bag” of portfolio arrangements added onto people with existing day to day operational management responsibilities; and
- the project management burden for emerging projects or issues (pandemic preparedness, planning for large scale community events), and the upcoming introduction of an electronic patient care report form (VACIS project-see later comment).


While other ambulance jurisdictions are larger in size and populations served and activity it brings the issue of scale into perspective when it is considered that in the same year the ambulance services in the three largest States (in population terms) each had over 500 positions covering administrative support functions and the next two States (South Australia and Western Australia) both had over 200 corporate and operational support positions.

Sharing the same scale diseconomies as in the ACTAS, the ambulance services in the Northern Territory and Tasmania had 30 and 50 staff across these same categories.

The issue of lack of economies of scale is a key issue for the ACTAS which has major impact on the “back end” of the organisation. It is an issue which I was very familiar as a long serving CEO of Tasmania’s ambulance service which had a similar challenge but with a larger land area, population served and number of response locations and an extensive volunteer network to manage serving small rural towns.

As an overriding observation I believe that many of the issues raised in the 2009 ACT Auditor-General’s Performance Audit Report which reflected poorly on the ACTAS remain indicative of the “back end” of the business struggling to cope with the greater scale and level of activity of the organisation in the areas of business support systems, policies and procedures, planning and data analysis, incident monitoring and evaluation activities etc, rather than in direct clinical services to patients. When combined with advances in health treatments and added responsibilities (helicopter operations, non emergency patient transport, CBR, USAR etc), the ACTAS is not unique in suffering from the same scale deficiencies and challenges experienced by other small jurisdictions such as the Northern Territory and Tasmanian services.

My recommendation to strengthen ACTAS’s management structure (in areas such as Comcen management and strategic business support), are designed to overcome the burdens on the small



current structure trying to cope with all the challenges confronting it. In areas such as administration, policy analysis and development, planning, performance analysis, monitoring and evaluation and systems support for clinical governance the issue of lack of economies of scale has overwhelmed the management structure resulting in some of the deficiencies identified in the Performance Audit. This is evidenced by:

- a reliance on significant portfolio responsibilities (such as Comcen, events and planning, aero medical services) added onto middle managers who are rostered to shift work with the normal role of managing day to day operations;
- clinical educators sharing the duty management roster for weekends;
- many clinical and other staff having multiple roles;
- over reliance on “paper based” clinical audit;
- incomplete systems for monitoring and evaluating clinical performance; and
- business plans lacking detail on key priorities and activities with measurable timelines.

As indicated above, a key feature of ACTAS middle management is a shortage of staff to manage both far busier day to day emergency operations in a busy 24 hour /day emergency service and also manage projects, newer services (helicopter operations, non-emergency patient transport), as well emerging areas (such as CBR, USAR), policy development work and interfaces with hospitals and other health services and the other emergency services. This has led to a reliance on shift work staff to work across multiple roles with week-end, evening and on-call night duty management rosters shared between duty managers and clinical managers (who have education and training roles in clinical care, driver training, Comcen training as well as clinical audit).

Any event or significant incident (accident involving an ambulance vehicle, complaint, disciplinary matter, major incident etc) on evening or night shift or weekends when a clinical manager is rostered as the duty manager results in a carryover of follow-up work when they are next on day duty. In some cases this carry over can involve a body of work over a time period. Time periods are often extended due to issues following up a matter with an operational officer whose shifts do not line up with the middle manager responsible for follow up.

The issue of lack of economies of scale has a further dimension when applied to a 24 hour /day emergency service handling a significant volume of activity during evenings and through the night. Modern cities have an increasing volume of social activities at night and when alcohol, drugs, occasional violence and trauma linked to driving vehicles under the influence or at speed are all factored into “the mix” then it underlines the importance of a shift supervision at night.

This issue would be substantially addressed by:

- the introduction of 24/7 shift supervisor positions to handle all day to day issues arising on their shift-with their rostered shifts overlapping with the roster pattern of operational staff;
- addition of senior ICP presence in COMCEN 24 hours a day which also strengthens tactical decision making at all hours; and

- the remainder of ACTAS's middle management structure working a 5 day week. This would remove the discontinuities linked to rostering and shift workers currently carrying portfolio responsibilities thus enhancing interactions between managers (all working the same weekday pattern), collaboratively working on key systems improvements and integrated policy and service delivery planning and other higher level tasks.

These changes in combination will enable operational staff to focus all their day to day issues through shift supervisors who will have the responsibility and accountabilities commensurate with their roles noting that these supervisors should adopt an identical modus operandi to ensure consistency of process and decisions. I address these at length in the workforce issues section of this report.

Directions in Safety and Quality adopted across Australia's health services

The observations of ACTAS by the ACT Auditor-General covered a number of issues which are linked to system changes already adopted or which are a work in progress across Australia's health services (by agreements between all Health Ministers) to better monitor standards for safety and quality and clinical governance.


The ACTAS has many of the ingredients of a sound clinical governance system but it is a reasonable expectation for the service to strengthen its clinical governance and monitoring and review mechanisms to ensure safe and high quality care. This issue is addressed in detail later in this report.

The issues identified for ACTAS are being progressively and systematically addressed in Australia's health system (including in ACT Health) over the past half decade in particular by unified action of all States and Territories. The areas for attention identified for all Australian Health Ministers as needed for a safe health system now need to be applied in a systemic manner in ACTAS. Some, but not all components exist and there is a clear need to draw existing elements together and to strengthen some areas significantly to create a robust system.

Three other recent reviews into Australian ambulance services made express mention of the need for State's ambulance service to strengthen their clinical governance mechanisms through stronger linkages to the health system's clinical governance systems and methodologies.

The 2007 Audit Report on the Queensland Ambulance Service recommended that the Queensland Ambulance Service and Queensland Health "needed to improve data collection , information sharing and coordination systems to implement an enhanced clinical governance system for all patient transports addressing patient satisfaction, complaints, clinical audit and safety and quality measures".

Similarly, the recently completed government review of Western Australia's St John Ambulance Service (which is contracted to provide ambulance services to government in Western Australia) found that clinical governance deficiencies were one of six major issues to be addressed for Western Australia's ambulance service. This review, completed in October 2009 made two specific recommendations for the Western Australian Ambulance Service to:

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- *“develop and implement clinical governance structures and processes that align with the Strategic Plan for Safety and Quality in Healthcare 2008-2013 and with the WA Health Clinical Governance Framework; and*
 - *notify and report sentinel events to the Department of Health’s Director of the Office of Safety and Quality in Healthcare and strengthen the capacity of the complaints system”.*

The Performance Audit of the Ambulance Service of New South Wales also covered structural arrangements with the health and hospital systems and identified *“the need for clear and unambiguous arrangements specifying the Service’s relationships with Health, hospital and other organisations.....Perhaps even more importantly, the Service’s sense of integration into the health system, at both an operational and strategic decision making levels, needs to be enhanced”.*

As ACTAS is in an emergency service portfolio it will need to significantly enhance its linkages with ACT Health in the areas of clinical governance and safety and quality considerations to give due regard to initiatives linked to safe clinical practice and clinical quality improvements. It is fair to say that a number of ACTAS staff have identified this need and are working towards this goal. Accordingly considerable attention is devoted to this topic in the Clinical Governance section of this report and existing elements of ACTAS’s systems are drawn together into a more comprehensive framework.

Issues related to funding of ambulance service provision


Ambulance funding systems in other jurisdictions

There is no nationally consistent approach to funding of ambulance services across Australian States and Territories and the revenue models used vary in their sustainability and impact on equity.

All States and Territories face dilemmas with ambulance funding /revenue arrangements and sustainable funding mechanisms in the face of growing ambulance caseload and increasing costs to provide timely emergency response.

As evidence of this dilemma the last five years or so has seen:

- South Australia introducing an Emergency Services levy to meet costs of a range of emergency services however the levy excluded ambulance services which remained in a voluntary ambulance subscription scheme. South Australia subsequently was the first State to withdraw from the informal reciprocal arrangements for ambulance cover with all other States;
- the Queensland Government under former Premier Beattie approaching the former Federal Government to consider the Medicare option for ambulance funding;
- the Queensland Government subsequently announcing a plan to add a levy to cover costs of ambulance provision onto local government rates then settling upon a compulsory levy on power bills and withdrawal from reciprocal ambulance coverage arrangements with all other jurisdictions;
- the Victorian Government reviewing its ambulance subscription scheme partly due to the high level of bad debts, but deciding to retain its current system;

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- the Ambulance Service of New South Wales costs, charges and insurance arrangements being the subject of review by the New South Wales Independent Pricing and Regulatory Tribunal (IPART) which recognised that ambulance fees and charges in New South Wales were set well below cost and well below fees and charges in other States. It also recognised that the levy on health funds for ambulance cover did not represent full cost recovery for ambulance services provided. A policy decision was made to progressively increase ambulance fees and charges and to come into line with other States by introducing a charge for persons who are treated but not transported;
 - St John Ambulance in Western Australia sold its ambulance subscription scheme to a private health insurance fund, with that fund later introducing a co-payment for non emergency cases (cases not transported to a hospital emergency department). This later led to the Western Australian government extending “free” ambulance services to pensioners and funding St John Ambulance Service for this community service obligation; and
 - the Tasmanian Government publicly announcing an intention to withdraw from “free” ambulance provision to the general public and to introduce user ambulance charges and reliance on private health insurance funds offering “ambulance cover”. This policy was strongly opposed by a number of interests including three key ambulance stakeholder groups including the union (HACSU), the professional body (Australian College of Ambulance Professionals) and the representative body for ambulance volunteers who indicated a strong preference for introduction of a compulsory levy rather than user charges and reliance on voluntary insurance arrangements. Subsequently the Tasmanian Treasurer announced that consideration would be given to some form of levy but this option was also later discounted and as a result the community still receives free ambulance services, the only State where this occurs.

A report prepared by Latrobe University summarises the factors linked to ambulance demand growth and sustainable ambulance funding issues across Australia. The report identifies deficiencies and inequities of the various ambulance funding arrangements in Australia and it identifies more cost effective and equitable funding arrangements for future consideration by all Australian Governments.

A key finding of that report was that “Australia does not have a nationally consistent approach to the funding and delivery of Ambulance services. There are significant risks to the medium and long term capacity of Ambulance services to meet demand pressures. There are, however, significant opportunities to introduce a national reform program to improve the sustainability and performance of Ambulance services. This program should involve development of an equitable activity based funding model, backed by agreement on a national system of funding. For example, imposition of an additional Medicare levy component of 0.3% would provide sufficient funds for all Australian Ambulance services, at a cost of about \$3.30 per week for a person on average all-time weekly earnings.”

Clearly the existing funding systems for provision of ambulance services in Australia are in need of review to find a better, more equitable, efficient and simpler long term national solution. Independent advice to the CAA is that the simplest and most equitable mechanism is through a small increase to the Medicare levy. The challenge is for all State and territory governments to consider future funding

options and form a collective shared view to present to the Australian Government so that Australia can eventually have a common ambulance funding system across the nation.

The high cost of providing high quality emergency ambulance services

While the public has high regard for ambulance services and the paramedics who respond when the community needs them most there is little appreciation of the very high cost of providing an emergency ambulance response. A significant proportion of uninsured patients fail to pay for ambulance usage who are not covered by community service obligation financial arrangements (pensioners etc). This is a significant problem in Victoria, NSW, South Australia, Western Australia and the ACT.

The high cost of providing a well trained, fully equipped and effective emergency ambulance service in a timely manner is not well understood by the Australian public. However, in the only Australian study I am aware of which ranks the importance of all the various components of the health system the public ranked the emergency medical system as the highest priority for government.

Urban ambulance cases involve two highly trained ambulance personnel in an expensive vehicle equipped with state-of-the-art medical equipment and high cost drugs. Some medical emergencies have drugs and medical supply costs alone which are in excess of \$280 per patient before adding the cost of staff and vehicles and overheads for a failsafe Comcen system and for effective training systems. Urban emergency ambulance costs across Australia are in the order of \$700 and upwards per case in most cities, and helicopter responses cost in excess of a thousand dollars. The annual recurrent salary costs for a 24 hour a day ICP crew exceed \$1 million per annum which helps explain why the various States and Territories have developed tiered clinical levels of service delivery.

While the ACT does not have the high cost issue of rural ambulance service provision to contend with it is worth noting that apart from high cost transport modalities such as helicopter and fixed wing air evacuations the next highest costs for ambulance cases in Australia is for cases carried out in rural areas, even if the care is provided by volunteer crews. Rural cases cost more per case because these areas have very high overhead costs for stations, vehicles, equipment and Comcen systems and a low caseload base making the cost per case significantly higher than urban cases even when volunteer personnel are used.

The costs of providing ambulance services in the ACT will rise with the outcome of the work value case for ICPs. There will also be added cost to government going forward to ensure capacity to provide timely response to emergencies in the face of expected continual growth in ambulance demand with an ageing and growing population.

Against this background of increasing costs of providing a first class ambulance service the reliance on a voluntary insurance scheme and a predictable ongoing burden of bad debts associated with the provision of ambulance services is not sustainable for the long term.

These factors in combination point to a case to develop an equitable and sustainable future funding model in every Australian jurisdiction. Further case for change is the fact that other countries offer universal health insurance arrangements as opposed to Australia which excludes emergency ambulance

and dental care from Australia's Medicare and Australian Health Care Agreement which covers other key areas of essential health services provision.

The bad debt situation for ambulance services across many States and Territories reflects that:

- in many cases someone else requests ambulance attendance rather than the patient treated who then becomes responsible for the high cost;
- there are emergency cases where, even with the best care, the patient dies sometimes later in hospital but before the ambulance account arrives followed by funeral expenses;
- there are cases where the patient does not need transport to hospital but considerable costs have been incurred in responding to patients and assessing them (with most States now having a specific charge for treatment but no transport);
- there are significant numbers of interstate residents who may need ambulance care while in the ACT who are difficult to follow up;
- there is a high cost of chasing up bad debts in relation to the cost to be recovered; and
- there are elements of public confusion as to what each person's level of health insurance actually covers.

Review of funding methodology for ACTAS

In my opinion the ACT Government needs to consider how it should deal with funding of ambulance services into the future which recognises that the cost drivers for ambulance provision are very similar to those for provision of acute hospital services and which provides greater funding certainty to an essential area of government service provision. Other reviews of ambulance service funding issues, including the Auditor General's review of the Queensland Ambulance Service find merit in applying a "health growth factor" to ambulance service provision as a means of recognising cost impacts of increased demand for services and cost increases for drugs and medical supplies which exceed CPI movements for the costs of other goods and services.

The challenge of growing demand for ambulance services

Every ambulance service in Australia has identified that the continued growth of ambulance demand is the single biggest challenge facing their respective services. For this reason the CAA commissioned Latrobe University to analyze factors contributing to demand growth.

Demand growth has multiple effects on ambulance services. As utilisation of ambulance crews increases, the capacity to be able to provide a timely response to every emergency is diminished. This places crucial emphasis on ambulance Comcen systems for effective call handling, clinical advice and dispatch priorities so that the ambulance resources at any service's disposal are used optimally with strategies in place to cope with periods of peak demand.

If ambulance resources are not increased or service delivery strategies not altered to cope with increased demand then public safety is at higher risk.

Factors influencing ambulance demand

All developed countries have experienced significant growth in the level of utilisation of hospitals, ambulance services and a range of other health services over the past four decades. Australia's and the ACT's hospital and ambulance service experience are no exception.

ACTAS demand for emergency ambulance attendance increased by 68% between 2000-01 and 2007-08 which represents an annual average increase of 8% per year over this period. This pattern of demand growth can reasonably be predicted to continue upwards especially when it is considered that the ACT community currently uses their ambulance service at a much lesser rate per capita than residents of all other States and Territories except Western Australia.

Many factors contribute to this growing demand for health services ranging from increases in the overall size of the population being served to increases in life expectancy and an increasing proportion of the population living longer with chronic illnesses with the benefit of a wide range of modern drugs, and significant developments in health diagnostic and treatment services. The increase in life expectancy alone is a major driver of health demand as people over 65 use hospital and ambulance services at four times the rate of all other age groups apart from very young children.

Public expectations of the total health system have also risen and modern society is far more aware of the benefits of modern medicine through rising standards of general education and through the public's (and media's) fascination with medical advances. The community now has a higher awareness of the risks of some symptoms such as chest, abdominal and neurological pain and of the benefits of early health interventions.

Today the ACT's hospitals, like hospitals throughout Australia, see more patients than ever before and modern medicine enables a far greater throughput of patients through developments in diagnostic and treatment procedures. Patients generally have their illnesses detected earlier or more specifically and surgical and medical treatments have advanced to enable a wide range of previously life threatening conditions to be successfully treated. Many patients are now able to live longer with chronic conditions. Advances in treatments have enabled a large proportion of surgery to be performed on a day basis and Australia's health system has been progressively re-engineered to cope with these advances. Patients have shorter hospital stays and a wider range of services have developed to enable people to be discharged from hospital earlier or to continue ongoing treatment in their own homes. Services such as outpatient clinics, community nursing and home help, Meals on Wheels services, palliative care and community based mental health services and specialty services for particular condition such as renal care are all examples of services developed to ensure ACT residents have a comprehensive health care system.

Social change also has an influence on demand for hospital, ambulance and other health services. Alcohol and drug use contributes to higher utilisation of health services such as ambulance care and presentations to hospital ED's through road and other trauma, injuries through violence, drug overdoses and through longer term effects on health status.

Other social trends such as an increasing proportion of young families or elderly people living alone without close support from others are also contributors to ambulance caseload increases. Modern enlightened approaches to mental health care and in support systems for people with intellectual disabilities also have some relevance to ambulance caseload. Decades ago institutional care was a common option but modern society promotes greater social acceptance and inclusion. With the least restrictive environment approach now commonplace there are fewer people with mental illnesses and significant intellectual disabilities residing in environments with on site nursing or medical care. As with child care and residential aged care situations duty of care considerations now lead to more prompt initiation of ambulance attendance when any physical health situation presents for clients.

Society's expectations of safe systems in child care centres, schools, workplaces and residential aged care facilities and fears of litigation held by providers of such services also contributes to ambulance demand growth. A child injured in a child care, kindergarten or school in today's modern society is now more likely to prompt a call for ambulance attendance as such facilities are required by licensing and regulatory standards to have systems in place to respond to injuries and episodes of ill-health.

Similarly residential aged care facilities are more likely to call for ambulance assistance and transport to hospital for acute onset of symptoms now than previously partly driven by duty of care considerations and partly by other factors such as fears of complaints from relatives or even litigation. This is particularly so on night shifts when staffing levels are lower and some nursing staff may have had less frequent recent exposure to some acute care skills such as catheter changes.

Social change also impacts on the health workforce. The solo general practitioner who is available to all his patients 24 hours a day 365 days a year is increasingly a thing of the past. Just as Australian workers have fought for shorter hours and safer hours so too have GPs increasingly moved into group practices and utilised after hours networks to ensure they "have a life". As will be explained in a following section below ambulance services are called upon when there are gaps or perceived gaps in availability of other health services such as GPs.

Health sector trends impacting on ambulance demand

The importance of pre-hospital ambulance care and safe systems of patient transport with care provided en-route has increased significantly in recent decades. While the general public may understand and appreciate the role of the ACTAS in responding to serious accidents and sudden serious illness there is a lesser understanding of how the ambulance service is an integral component of the entire health system. The ACTAS plays a significant role in the management of patients with acute-on-chronic episodes of care and it is also relied upon to support the efficient and effective working of many other facets of the health system. It is also seen as a health service of "last resort".

Many of the developments in the ACT Health system rely upon the ACTAS to support systemic changes such as increased hospital throughputs, reduced lengths of hospital stay, increased day surgery rates, "hospital in the home" and other community based health services.

The ACTAS like its counterparts in all other States and the Northern Territory is influenced in its demand pattern by a large number of inter-related health sector trends. They include the following trends:

Health Sector Trend	Impact on Ambulance Services
Increased throughput for public hospital beds, higher bed occupancy and more hospital separations.	Increased demand as more patients are moved by emergency ambulance and routine patient transport services for both admission and early discharge to ongoing community care.
Reduced lengths of hospital stay in major hospitals	Increased demand as more patients are moved by ambulance to their homes, to nursing homes and to other step down health facilities including some long distance ambulance transports to rural areas of NSW in coverage area of Canberra Hospital.
Increased numbers of elderly patients occupying acute hospital beds.	Blockage of acute hospital beds for emergency admissions, sometimes resulting in hospital emergency departments going on ambulance bypass thus increasing ambulance travel time to move to another hospital and reduced capacity to respond to other medical emergencies due to longer times to "clear" or handover some patients to hospital staff.
Increased presentations to public hospital emergency departments	Delays in handing over ambulance patients to hospital emergency department staff, which can also sometimes be linked to hospitals going on ambulance bypass.
More chronically ill people cared for at home.	<p>Ambulance services are called to respond for acute-on-chronic episodes of care.</p> <p>Patients transported by either emergency ambulances or PTS services to access outpatient or day treatment for treatment or diagnosis.</p>
Change in roles of rural hospitals-not a factor in ACT but included to explain impacts on neighboring areas of NSW which are closer to Canberra than major hospitals in Sydney, and also to explain some aspects of helicopter operations.	<p>More long distance ambulance transports bypassing rural facilities for a range of cases including trauma, obstetric care etc.</p> <p>Decreased ambulance response cover in rural areas while ambulance crews transport long distance cases.</p> <p>Greater use of high cost forms of ambulance</p>

	transport, such as fixed and rotary wing aircraft, for critically ill patients moved from rural areas to cities.
Increased emphasis on safety and quality in the Australian Health Care System	Centralisation of some more complex care services to ensure safe practice resulting in more ambulance transports to centralised services providing higher level care. This is particularly the case for helicopter retrieval transfers from Canberra to Sydney for higher level of care with flight physicians joining flight ICP's due to high level of patient acuity for this cohort of patients
Community integration of people with mental illnesses	Less patients with mental illness cared for in institutional care and ambulance services called upon to manage acute episodes of care ranging from self harm to general medical illnesses linked to a range of factors including less frequent physical health checks.
Community integration of people with intellectual disabilities	More people cared for in group homes and other supported accommodation rather than large institutions with less access to on site nursing and medical staff, resulting in more calls for ambulance assistance
Greater media exposure to Public Health risks	Ambulance services stretched to capacity after major scares in several Australian cities due to public concerns over "white powder incidents" High level of ambulance call-outs following specific scares such as meningococcal
Decline in bulk billing by general practitioners	More patients seek care in hospital emergency departments to receive "free" care (some of whom are transported by ambulance), with links to other "problems" such as delays in handing over some ambulance cases and on occasions some hospital emergency departments going on bypass.
Insufficient numbers of general practitioners in	Some patients use ambulance services as an

<p>some areas.</p>	<p>alternative resource.</p> <p>Some patient's access hospital emergency departments (see related problems above).</p> <p>The ACT has a significant shortage of GPs – according to September 2009 GP Taskforce Report (General Practice and Sustaining Primary Health Care: the Way Forward) “it is clear that General Practice (in the ACT) is a system under pressure and is experiencing many changes in distribution and workforce. The Taskforce is of the view that the shortage will worsen before workforce supply improve....the predominant challenge for delivering primary health care in Canberra is the General Practice workforce shortage....there is a trend towards redistribution of GPs into larger practices grouped closer to town 's in the ACT.</p> <p>37% of the GP workforce is over 55 years of age and the large proportion of female GPs under 45 is likely to result in more working part time. On balance these factors point to the shortage worsening before the GP workforce supply improves-we face a difficult decade”</p>
<p>Changes to after-hours availability by general practitioners</p>	<p>Greater reliance on ambulance services after hours.</p> <p>The ACT is also experiencing a process of GPs relocating practices into larger practices grouped closer to town centers in the ACT</p>
<p>Problems in recruitment and retention of general practitioners in rural areas-not certain as to extent of this as an issue in rural areas of NSW which surround the ACT-noting that NSW Ambulance are most affected with this issue.</p>	<p>Ambulance services usually are accessed as the alternate service in areas with no GP.</p> <p>Patients transported by ambulance to access health services in another locality.</p> <p>The ACT GP Taskforce report identifies that “provisions should be made to manage projected increases in demand for transport to and from health care appointments”. I would add that</p>



	<p>there will also be pressure on non-emergency medical transport in the ACT as a result of GP shortages and redistribution.</p> <p>Issues related to GP workforce availability in surrounding rural areas of NSW are likely to have some impact on future helicopter caseload.</p>
Greater awareness of medico legal risks	<p>Staff in nursing homes, hostels, group homes, sheltered accommodation, community care etc. tends to request ambulance care and transport to mitigate against the risks of legal action in the event that their assessment of minor health conditions is in error.</p> <p>The ACT General Practice Report identifies significant issues in GPs providing services into residential aged care settings into the future and this is likely to result in some increased pressure on ambulance transports to alternative care for residents of aged care facilities to access care.</p>
Advances in medical diagnostic and treatment technologies	<p>More people moved by ambulance to access a greater range of diagnostic tests and treatment options.</p>
Centralisation of the most costly and specialised health services for both diagnostic services and inpatient and outpatient treatments.	<p>Higher cost technologies are generally centralised due to both cost and level of expertise required with ambulance services involved in more long distance transports to access centralised services. This affects extent of use of helicopter for adult retrieval cases and some neonatal care cases</p>
Provision of a wider range of palliative care services.	<p>Ambulance transport used to transport more terminally ill patients between hospitals and hospices and patients residences.</p> <p>Ambulance services called to provide assistance for terminally ill patients when partners/relatives are overwhelmed by circumstances of patients during end stages of terminal illnesses.</p>

Monitoring demand growth

In view of the fact that the demand for ambulance service provision is:


- very highly correlated with numbers of presentations to Hospital ED's;
- directly linked to the health status of the population and its demographic characteristics; and
- influenced by the availability (ease of access and whether access varies during evenings, nights and weekends) and cost of accessing a range of other health services most particularly, but not limited to access to GPs (e.g. bulk billing rates);

i would recommend that ACTAS develop a strong linkage with ACT Health on future demand forecasting and analysis rather than develop an "in house capacity". To do otherwise would be both wasteful of resources in a small jurisdiction with lack of economies of scale and not reflective of ACT's technical capability in this field.

Ambulance utilisation in the ACT

While the ACT has experienced very significant demand growth (68% in a nine year period ending 2007-08, averaging 8% growth per annum during that time) the ACT has:

- the second lowest per capita use of ambulance services in Australia covering emergency, urgent and non urgent incidents per 100,000 people (lower than all jurisdictions except WA);
- the lowest number of patients per 100,000 people of all Australia's ambulance services (just under half the rate of usage of Queensland residents and 38% lower than the Australian average);
- a low proportion of non-emergency incidents as a proportion of all incidents (with only Tasmania having a lower level);
- the lowest level of inappropriate use of ambulance services in Australia measured by numbers of low acuity (triage category 4 and 5 in ED triage categories) patients taken to hospital;
- effective strategies to treat and leave patients or treat and refer patients to alternate care when they do not need care in a hospital emergency department reflected by ACT having the highest % of patients treated but not transported, just under double the rate for Australia;
- a very effective falls management strategy (developed in ACT and copied by Tasmania) which reduces ambulance usage by early identification, assessment and referral of patients at risk of serious injury from multiple falls at home to a range of medical and community services;
- a strong and effective system for managing delays in off-loading patients at hospital emergency departments which is hampering all other ambulance services in their emergency response capacity due to increasing time before hospital ED staff can take over care of patients transported to hospital by ambulance;
- the second lowest per capita level of salaried ambulance personnel in Australia (with only Western Australia having a lower per capita level);
- the second lowest expenditure per person on ambulance service provision in Australia (with Western Australia having the lowest level) which reflects that ACT does not have to contend with rural service provision issues faced by other jurisdictions;

- 
- strong growth in overall demand for services (8% per annum in recent years) which is consistent with the growth in size of the ACT's population and its ageing profile; and
 - significant declining emergency response performance for Canberra at both the 50th and 90th percentiles.

As such the strategies to cope with this demand growth and to ensure emergency response times meet acceptable community standards then strategies necessarily need to focus on:

- the adequacy of existing crewing levels;
- the timing of caseload peaks so as to match resources with demand patterns; and
- scope for marginal improvements in response performance through:
 - monitoring of "scramble" or "activation times" (the time it takes for a crew to respond to a call by becoming mobile in their vehicle) by crew and by time of day to seek optimal performance of all operational staff;
 - monitoring "scene times" and "off-stretcher" times by case type and by crew member;
 - use of automatic vehicle technology data;
 - reviews of station locations to determine whether crews are best placed by time of day;
 - effective operational movement and deployment coverage strategies; and
 - further refinement of demand diversion strategies in the ambulance Comcen .

In my considered opinion and having regard to all the above factors and the ACT data I have seen on station location and operational movement /coverage strategies I believe the most realistic ways of achieving response performance improvements are to:

- increase crewing levels focused solely on the times of peak caseload which are from 7am until 11pm with potential to have two crews overlapping which will also ease problems of missed meals by current duty crews; and /or
- consideration of single officer response strategies which is a lower cost option but can result in long scene times awaiting back up to transport the patient to hospital.

Responding to ambulance demand-the Australian experience in service delivery models

The 2009 ACT Auditor-General's Performance Audit Report in the ACT acknowledges growth of ambulance demand by 68% between 2000-01 and 2007-08 and covers issues and strategies used by ACT Ambulance to respond to this demand increase such as:

- reprioritizing emergency cases at times of peak caseload;
- dispatching ASO or fire crews and using single response units as emergency responses when an ICP crew is not immediately available;
- issues related to response performance; and
- issues related to clinical decisions at a scene that transport of a patient to hospital is not required.

The common response strategies of Australian and a growing number of international ambulance services are based on tiered response systems. In Australian context this currently includes:

- **Public access defibrillators** placed in public places or workplaces to enable bystanders to initiate care using automatic defibrillators with ambulance dispatched to take over care upon arrival. These machines can be used to shock the heart in the event of a cardiac arrest and can be used by a person with no experience. The Australian government partnered with St John Ambulance and an insurance firm to place automatic defibrillators in public places and several ambulance services to foster such strategies to improve cardiac arrest survival chances.
- There has been one well publicized example of a public access defibrillator in a Canberra Club being used to save a life. There was also a life saved in Tullamarine Airport using a public access defibrillator.
- The deployment of public defibrillators in the community would suggest that ESA should consider mapping the location of these defibrillators into the future in its CAD locational database and to keep the data base up to date.

Victoria Ambulance has been placing automatic defibrillators in public places since 2002 and there are 18 such sites in Melbourne. The USA federal government mandates that federal workplaces have defibrillators.

- community first responders (volunteers trained to basic level) who respond and initiate basic care until they are "backed up" by a higher level ambulance response with transport capacity.

In 2007/08 there were 809 community first responders in Australia and 137 in New Zealand. There are no community first responders in the ACT.

The numbers of community responders is growing year by year in Australia in both rural and outer urban areas. Victoria has 28 community first response teams, SA five teams, Tasmania 4 teams and WA has some 90 first responder teams.

- volunteer ambulance responses where trained volunteers respond and provide basic level care and transport ("backed-up" by a career crew where patient acuity warrants other than in remote areas where they are the sole initial response).

In 2007/08 there were 5,836 ambulance volunteers in Australia (77.4% of whom were involved in ambulance operations) and 4,050 ambulance volunteers in New Zealand (99.8% involved in operations). There are 319 ambulance stations in Australia (and 70 in New Zealand) which have wholly volunteer crews which is close to one third of all Australia's total ambulance response locations. This is reflective of Australia's large land mass, low population density and numbers of small rural towns. There are also 86 ambulance stations in Australia which have a mix of career and volunteer personnel and these are in mid-size rural towns, strategic rural locations and the outer urban areas of some cities.

Co-responder programs are where another emergency service commonly a fire service is tasked by the ambulance service to respond in certain situations. This includes:


- responding a fire crew to initiate basic emergency care when there will be a delayed ambulance response due to a peak in caseload as mentioned in the Audit report. This is a common and sound risk management strategy which is very much in the public interest;
- responding a fire crew to provide assistance to an ambulance crew, commonly to assist with bariatric cases (severe obesity); and
- tasking a fire crew to respond to a cardiac arrest at the same time as an ambulance crew with the first arriving service initiating care.

Victoria has operated such a system of co-responding a fire crew in Melbourne since 2000. In 2008 this was extended into some areas covered by the Country Fire Authority.

- **two person career ambulance crews** where the highest skill level is paramedic (formerly called Ambulance Officers or Advanced Life Support Officers). This is the most numerically common crew configuration in Australia, the UK, Canada and most western countries.
- **two person career ambulance crews** where at least one of the crew members is at ICP level- which is the dominant service delivery model in the ACT.

Another tier of ambulance service delivery is **non emergency /patient transport crews** focused on non urgent routine transport of stable patients. In some jurisdictions these crews respond to medical emergencies when there is no emergency crew available to respond in a timely manner which is also a sound risk management strategy. Patient Transport Officers and Volunteer Ambulance Officers have very similar training to deal with medical emergency situations.

The ambulance service delivery model which is appropriate for a given city, region, State or Territory has to have regard to factors such as:

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- total population to be served, and its age profile noting that elderly people are faced with life threatening medical emergency situations far more often than other age groups;
 - land area to be covered and geographic features which effect response capacity;
 - population density and dispersal-noting that Australian cities have far lower population densities less people per square kilometer than cities in South East Asia, India, the Middle East and Europe; and
 - the number (and type) of hospitals, their location and range of services provided noting that the trend in the health system in western countries is to centralize the most complex and expensive diagnostic and treatment services in larger teaching hospitals so that high quality and safe care can be provided.

The medical evidence in support of speed of response

The medical evidence on pre-hospital care, including issues related to:

- linkages between speed of response and benefits to patient survival;
- the benefits of particular treatments available in the pre-hospital environment; and
- issues linked to benefits of newer technologies such as semi-automatic defibrillation.

The literature on speed of response identifies three conditions for which the benefit to patient survival from a fast response is beyond dispute. These are:

- defibrillation in treatment of cardiac arrests;
- arrest of hemorrhage; and
- clearing and maintaining an airway.

On the issue of defibrillation the literature review shows “a number of emergency medical systems have shown substantially better cardiac arrest outcomes than the ambulance only model operated by UK Ambulance Services”. One of the two models which show better cardiac arrest outcomes is community based non-emergency service personnel trained to use public access defibrillators. They identify the benefits of wider availability of Semi Automatic External Defibrillators (SAEDs) and mention the wide range of community or bystander groups using SAEDs from postal workers in rural England to casino security staff in Las Vegas.

On the issue of internal bleeding from trauma the major need for serious trauma patients is definitive hospital care so internal bleeding can be repaired quickly to increase the patient’s chances of survival. ICP /paramedic intervention on its own cannot save such patients and the emphasis needs to be on shortening scene time and getting the patient into surgery quickly. Canberra’s small size and short distances to hospital should place greater emphasis on short scene times for trauma patients rather than extensive scene times.

On the issue of an obstructed airway, common obstructions are tongue (normally in unconscious patients), foreign body (usually choking on food), swelling (as a result of illness or burns) and trauma. The literature shows that “*the large majority of these obstructions can be resolved using Basic Life Support techniques (positioning, aspiration and use of an artificial airway). Occasionally the ALS*

technique of laryngoscopy and intubation will be required. Rapid interventions can result in a complete recovery...delays in providing this care can result in survival with hypoxic brain damage”.

The conclusions on speed of response are:

- a very fast initial response has been shown to contribute to higher survival rates for some specific conditions, but not for all emergencies (UK estimates are that this represents between 25% - 30% of emergency calls);
- trained ambulance personnel need not be the only providers of pre-hospital care - *“trained volunteers can also be effective with defibrillation and CPR, especially with the development of easy-to-use equipment to support them”*; and
- for some emergencies, a fast response is important as part of the total time it takes to reach hospital, and this is more critical for a number of conditions (trauma, acute coronary syndrome) where pre-hospital intervention can have limited impact.

In the case of cardiac arrests it is estimated that a patient’s chances of survival diminish by 10% for every minute of delay until they are defibrillated.

Tiering of services

Most ambulance services covering cities operate on having tiered services with different levels of trained personnel carrying out different levels of patient care ranging from:

- ICP or advanced life support paramedics for life threatening cases requiring paramedic interventions;
- general duties crews manned by paramedic (formerly called Ambulance officers) level crewing;
- patient transport crews for routine movement of stable patients requiring stretcher transport (which can be managed by ambulance services as separate business units or even by hospitals or private contractors under contract to government services i.e. Victoria);
- clinic cars for movement of sitting patients, which can be operated by ambulance services, hospitals or even voluntary agencies such as services funded under the Home and Community Care [HACC] program; and
- first responder programs to provide rapid response to emergencies, with no transport capacity.

Most of Australia’s major cities have a range of initial ambulance responses with the majority having a mix of paramedic and ICP responses supported on a risk management basis by strategies such as community first responders, fire first responders and single officer ICP responses.

In later sections of this report I identify the case for introduction of a paramedic level service into the ACTAS’s system while still retaining a majority of crews at ICP level.

International comparisons in educational standards for paramedics place Australian ICPs ahead of most in terms of underpinning theoretical knowledge so by any measure the ACTAS provides an elite high standard service which would be the envy of any city in any developed country.

This exceptionally high standard is reflected in:

- the community ranking paramedics as the most respected occupation in Australia each year for the last six years;
- ACT residents giving their ambulance service a 96 % approval rating (a level which would be envied by any ambulance or health service in any developed country); and
- an extremely low level of patient complaints with a complaint arising on average once in every 1400 cases.

Accordingly, I recommend that the ACT government plan and budget for addition of two overlapping paramedic level shifts per day focused on times of caseload peak between 7am and 11pm. I also believe there is potential to make greater future use of single officer rapid response strategies also focused on caseload peaks but adding value to this role by involvement in 'real time' clinical audit and monitoring of quality patient care.

Demand management strategies

Coverage models and dynamic deployment

Most ambulance services operate on coverage models which involve:

- allocation of the nearest available ambulance to each life threatening emergency regardless of the location of that ambulance compared to its normal base or station;
- moving ambulance resources between areas during peak caseload periods to ensure optimal emergency coverage, taking into account population densities, traffic movements and historical caseload demand factors by location; and
- having different levels of crewing at different times of the day and in different areas matching historical patterns of caseload demand by time of day.


It is common and necessary for an ambulance service to have strategies in place to move ambulance crews around at times of caseload peak to optimise response performance. I have reviewed this practice in the ACT and I have no issues with the current coverage and deployment strategies as demand increases and there are fewer crews available to respond.

I also commend the use of ASO and fire crews being tasked to respond during occasional peaks in caseload demand when an ICP crew is not immediately available as this is in the public interest and recognises the value of the basic life support skills both these groups of personnel have.

Role of Comcen in demand diversion

It will increasingly be the case that all ambulance service Comcen's will need to play a role in demand diversion and referral of appropriate cases to alternate services or care pathways. Strategies to achieve this are already in place to varying extents in other services with Victoria leading the way amongst Australia's ambulance services.

In overview:

- 
- there is an important role for Comcen in demand diversion /referrals to alternate care pathways and this underpins the case for placement of a clinical supervisor in the Comcen; and
 - ~~there is an important strategic link that needs to be developed with the Health Direct initiative~~ of 24 health advice line including exploring the possibility of electronic link to transfer CAD data to them and vice versa. Such services aim for patients to be given the right type of health service at the right time, which can result in lesser ambulance turnouts and less emergency department presentations through thorough analysis of the nature of patient's conditions using generally nurse call takers and software algorithms designed to provide safe clinical decision support.

Managing inappropriate demand

The statistics on per capita ambulance usage across Australia demonstrate that the ACTAS has a lesser issue with inappropriate ambulance requests than all other ambulance jurisdictions in Australia.

ACTAS also takes the lowest proportion of triage category 4 and category 5 patients to hospital EDs of all States and Territories which in my opinion are reflective of:

- a higher average skill level by attending ambulance personnel in the ACT (based on extremely high proportion of ICP response) enabling effective treat and leave and treat and refer strategies with empowerment of staff to use their knowledge and skills in patient assessment thus reducing the burden on the busy hospital ED's; and
- less inappropriate requests for ambulance attendance in the ACT.

The literature on inappropriate ambulance usage and strategies to contain it has some important lessons for Australian ambulance services. Two ambulance services have mounted significant media campaigns aimed at discouraging inappropriate ambulance use. Both have had similar adverse and unintended outcomes. The experience of the London Ambulance Service is worth relating so as to ensure that important lessons are learnt and negative experiences avoided.

The London experiment involved a public awareness campaign timed to coincide with the Christmas break and the extensive media campaign went under the banners of "Think before you call", and "Call an Ambulance for the wrong reason and someone could die". Confronting language was used to get the message across to the public to emphasise that if ambulances were caught up with trivial calls they would not be available for genuine emergencies.

Media information focused on:

- inappropriate uses of ambulances such as earache, cut fingers, needing help with a household task with words used to describe such calls as thoughtless, putting lives at risk, trivial, 999(000 equivalent) abusers and wasting time;
- what constitutes a real emergency;
- information about alternate health care services which may be relevant;
- provision of data to the public on escalating ambulance demand; and
- case studies of where dispatch of an ambulance service may not be the best response.

Unfortunately the campaign in London led to some unintended risks:

- patients who genuinely needed an ambulance delayed calling placing themselves at greater risk, exemplified by older patients *"who did not want to bother those busy ambulance staff"*;
- raising the awareness about the ambulance service generally led to more calls rather than less calls as the very people they wanted to influence either did not take notice or did not care; and
- members of the public failed to identify with the extreme examples of inappropriate calls and some members of the public *"learnt" new reasons for calling an ambulance, others can do it ...so why not me"*.

The campaign also led to more complaints against ambulance staff, some of whom "lectured" the public during the campaign, some without tact and some got it wrong.

Follow up research in the UK after this campaign found that:

- a lot of inappropriate use resulted from people panicking when they thought they were facing a crisis;
- a large proportion of the public have empathy with those who panic and call 999 (our equivalent to 000)...a feeling of "better safe than sorry";
- a minority feel they pay for the ambulance service through their taxes so they have every right to use it;
- a large proportion of the public are not well prepared to deal with making an emergency call;
- 20% of people with flu like symptoms would choose to bypass the primary health care system;
- 50% would bypass primary health care when their child had a high temperature and was restless;
- Only 66% agreed that chest pain and nausea was an ambulance case;
- 50% believed that arrival at a hospital by ambulance led to patients getting priority;
- 40% admitted that they were more likely to call an ambulance in the middle of the night because getting through to another service may be difficult;
- 31% indicated they would use an ambulance when they could not get a GP appointment for several days;
- ambulance posters on buses and billboards depicting an ambulance and a taxi-with the caption that "only one of these is a taxi" actually had negligible impact; and
- 60% of the public knew nothing of NHS Direct-the free health advice line designed to reduce inappropriate use of ambulances and hospital emergency departments but women were more likely to know about such a service than men.

With this alarming experience in mind combined with ACT's low level of ambulance usage and low level of lower acuity cases taken to hospital I do not consider it necessary that the ACT engage in a media campaign to reduce inappropriate demand.

Managing peak demands

As indicated earlier there is no case for adding only additional 24 hour a day crews when the caseload peaks reflect a better use of additional resources is to focus additional resources to peak caseload periods between 7am and 11pm.

Ideally operational staff should rotate evenly through shift patterns and not just work 10 and 14 hour shifts as this will reduce fatigue and be in the best interests of safe patient care.

Role of single responders

ACTAS has previously trialed use of single responders to provide a rapid first response to cases at times of peak caseload. I understand it was found that delays in having a crew provide backup and transport capability led to combining the single responders together as a crew with a standard ambulance vehicle so transport was not delayed.

This experience is worth consideration but ACTAS should retain an open mind on the applicability of this solution or strategy into the future. The ambulance professional body and others are keen to explore the concept of the "ambulance practitioner" with additional skills to extend scope of practice into primary health care fields.

The UK experience with ambulance practitioners is interesting. Professor Malcolm Woollard, UK paramedic consultant, Chair of the UK College of Paramedics recently completed a stint as Visiting Professor in Pre-Hospital Care to Australia's Charles Sturt University and gave an insightful presentation to the recent International Roundtable on Community Paramedicine in New Zealand ("Extended Scope paramedics-What not to do") in which Professor Woollard explained deficiencies in the way the UK had introduced extended scope paramedics in the UK.

The UK started trials at 12 sites in 2003 with aims of:

- reducing admissions to EDs;
- reducing ambulance response times; and
- plugging the gaps left by changes in out of hours GP availability.

Initially they used paramedics (77% of personnel initially), nurses and some allied health professionals in extended scope roles who were provided with additional training of 15 weeks duration. Numbers of personnel involved increased to 900 by 2009. They were given a variety of training which unfortunately was not standardized and they initially worked from a variety of settings including ambulance services, out of hours services, GP surgeries, ED's and Walk ins. Most now work in ambulance services with the extended scope paramedics paid considerably more than other paramedics.

Despite the laudable aims most of these personnel are now responding to emergency calls and cases which can potentially become life threatening unless they receive treatment rather than the lower acuity cases which can be referred elsewhere.

Success for the program is difficult to claim since:

- there has been a lack of standardization in the various training courses and hence variability;
- emergency call volumes to ambulance services continue to increase at 7% per annum;
- queuing of ambulance at hospital EDs is still commonplace;
- there is still reduced availability of GPs after hours;
- there was no "built in" research on patient outcomes;
- various pilot sites worked differently;
- education programs varied significantly;
- there was perceived to be an underestimation of the complexity inherent in decision making for the target population;
- the funding system was altered mid way through the program, no evaluation process was built in to focus on patient outcomes and whether objectives were met-rather a reliance on academic researchers responding to invitations to compete for research funds to evaluate programs; and
- single extended scope paramedics are frequently on scene for extended periods waiting for back up transport capability.

In Professor Woollard's view the real lesson is that ambulance services should not concentrate all their resources on 10% of their workload (genuine life threatening emergencies). I share this view and it underpins my recommendation that ACTAS expand its tiers of service delivery to include a paramedic tier.

Trials are underway in a number of Australasian ambulance services with single paramedic responders aimed at reducing inappropriate demand however based on the analysis of the inappropriate usage data in the ACT, I do not consider this as a priority strategy.

Victoria and the South Australian Ambulance Service are using single responders to reduce emergency response times at caseload peaks and I think this strategy remains valid once a service has reached a safe level of emergency crewing and has occasional peaks.

The Tasmanian Ambulance Service, which shares more similarities in scale with ACTAS, uses single responders but they have dual roles. Apart from providing a first response to emergencies when there will be a delayed response they have other roles including:

- backing up of paramedic level crews when an ICP level of care is needed;
- to strengthen real time clinical audit "on the road";
- to improve standardization of on road practical training overseeing mentors and competency reviews;
- to monitor practical training on road ;
- oversight of remedial training programs for selected staff; and
- focus on quality improvement initiatives.

These Tasmanian single responder staff are called Clinical Support Officers. They are paid more than Tasmanian ICPs and they are the on-road clinical experts in the Tasmanian Service providing a cost effective solution to multiple objectives.

I believe there is merit in ACTAS continuing to monitor use of single responders and I favor review of the Tasmanian experience as one which has potential merit in the ACT.

Other response strategies-Fire and Patient Transport Service

As indicated in this report I fully support ACTAS use of ASO's or fire service response when there will otherwise be a delayed response of a paramedic /ICP crew.

This is a sensible strategy which remains in the public interest and one which reflects the positive contribution that basic life support skills can make in a number of emergency situations aided by modern technology such as SAED's.

Measuring Ambulance Performance

Response times

The key performance indicator for emergency ambulance operations which is readily understood by the public is the time it takes to respond to a life threatening emergency. Ambulance services measure the 50th and 90th percentile emergency response times to give an indication of:

- average response times (more accurately the median response time); and
- the spread of response times with the 90th percentile being the common measure in Australia and the UK to identify the time within which 90% of all emergencies are responded to which is a good indicator of total performance.

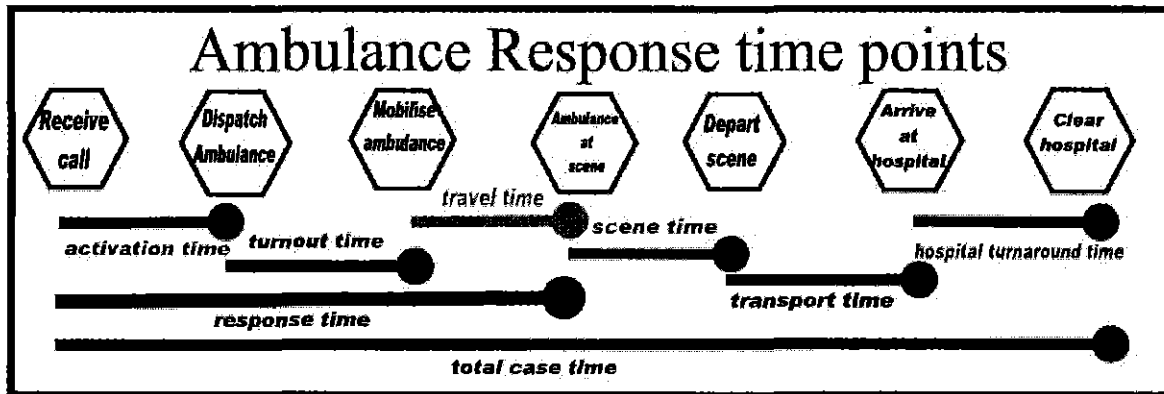
While this sounds a simple task to compare or benchmark the performance of various ambulance services it requires:

- common definitions of what constitutes an emergency; and
- a common definition of what constitutes the time points from when response times are measured.

The various components in total ambulance case time are:

- activation time - the time it takes the Comcen Officer to take the caller details and task a crew;
- turnout or scramble time - the time it takes an ambulance crew to get into the ambulance and become mobile;
- travel time - the time taken once mobile to drive to the scene;
- scene time - time taken to assess, care for and stabilize the patient at the scene and load the patient into the ambulance;
- transport time - time taken from departing the scene to arrival at hospital; and
- hospital turnaround time - time taken after arrival at hospital until the patient is handed over to hospital staff and the crew depart the hospital.

These time points are illustrated in the following diagram:



The Productivity Commission annually publishes the response performance of Australia's fire and ambulance services in its Report on Government Service Provision. As an inaugural and long time member of the national Emergency Management Working Party (which works on the compilation of the data in this particular chapter in the annual Report on Government Service Provision), I am very aware of the data irregularities or inconsistencies in how different jurisdictions count their emergency response times.

Although these deficiencies are covered in the footnotes to the response time tables published annually the differentials are worthy of clarification. This issue is expressly mentioned in each year's report in words such as *"response time data needs to be interpreted with care because performance is not strictly comparable across jurisdictions. Although the definitions are consistent not all jurisdictions have systems in place to capture all components of response times for all cases...(there are) differences across jurisdictions in definitions of geography, personnel mix and system type which affect the comparability of response time data...the commencement of recording ambulance service response times varies as per jurisdiction caveats"*.

When reading the caveats it is clear that not all Australian ambulance services count the full period from time a 000 call is answered in the ambulance Comcen until an ambulance arrives at the location of the incident.

The varying methods of counting include:

- start counting from when the Comcen answers the call;
- start counting from the first keystroke of commencement of creation of an electronic case record (which is the agreed desired method for progressive adoption in Australia once all jurisdictions have the electronic capability of measuring this time interval);
- starting to count from when the Comcen staff have entered the patient's name and a valid address into the CAD system (which was understood to have been the common method in the UK for many years);

- starting to count from when the call taking is complete or near completion and an ambulance crew is tasked to respond (with the Comcen Officer sometimes continuing the call beyond this point to provide essential pre-arrival advice); or
- starting to count from when the ambulance crew becomes mobile towards the incident location.

ACTAS has counted its response times for emergencies from the first keystroke since 2007/08 which means that response time data for years prior to that date would have excluded some of the call taking time. This means that from 2007/08 onwards the Report on Government Service Provision data for the ACT is an accurate record of the full response time. The same can be said for those other jurisdictions which identify in their caveats that they also count from the first keystroke which applies to Victoria, South Australia and Tasmania but not the other States.

The fact that ACT changed its response time calculation point from 2007/08 onwards means that part of the recent deterioration in reported response times is marginally accounted for by a difference in how ACT counts response times.

As indicated above some other ambulance services start counting from a later point in time based on their measurement system capability and this can vary response performance by subtracting between 80 to 95 seconds on average to the total response time. This is my estimation (based on industry knowledge and standards) of the time taken for a Comcen Officer to "take control" of a 000 call from an often stressed and overwhelmed caller to:

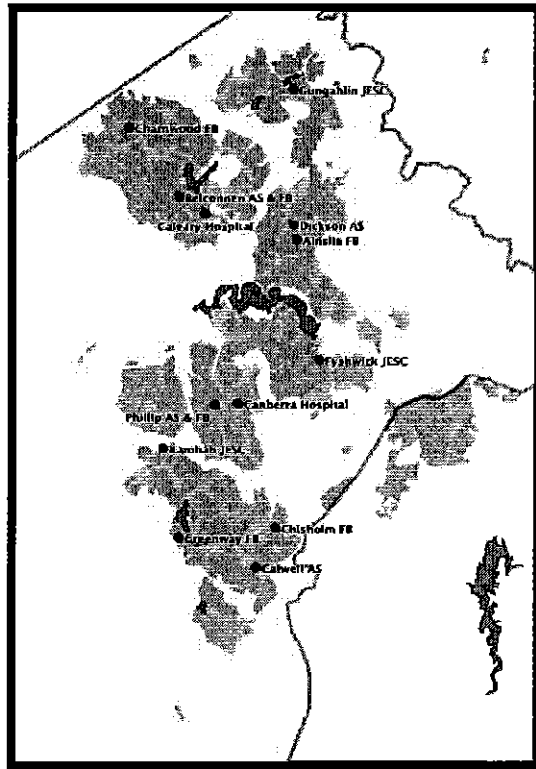
- determine the exact location of the incident;
- determine the nature of the incident; and
- determine the true priority of the call (which is not always a life threatening situation) and enter those details into the CAD system.

It is after this occurs that a crew can be tasked by a further keystroke in the CAD system and the case type (cardiac arrest, chest pain, asthma attack, stroke etc) and precise location details are forwarded to a mobile data terminal to the crew tasked to respond.

This means it is not a true and fair comparison to compare ACT's emergency ambulance response times with those States which start their measurement from a later point in time which may be 1.5 minutes later. In the case of the ACT, it is far more appropriate to compare capital city response times rather than Statewide response times of all other States and Territories as to do so brings rural ambulance service provision into the equation which is not as applicable in the ACT.

Another key factor in comparing response performance arises when there are significant differences in population densities between one city and another. Canberra is a planned city which features a central lake and an urban pattern of development which spreads suburbs along a twisting linear line (described by some as like a backbone) with many suburbs or clusters of urban development separated from others by parklands and natural bush land. Although this separation of suburbs has good connecting road systems it results in the population served from any single ambulance response location being on

average considerably more dispersed than the size of the population with say a square kilometer of an ambulance station in more densely populated city such as Sydney or Melbourne. This pattern of urban development and the location of ACT's ambulance and fire response locations and two hospitals are shown on the map below.



The issue of population density comparisons between cities is important as it helps explain the challenges in response performance between different cities. In Canberra there is a population density of approximately 1,133 people per square klm which is a considerably lower population density than other capital cities such as Sydney (approximately 2,075 people per square klm) and Melbourne (approximately 1,519 people per square klm) and marginally less than Perth (1,219 people /sq klm) and Adelaide (1,375 people /sq klm). Canberra also has a lower population density than some other larger regional cities in Australia such as Geelong (1,354 people per square klm) and Wollongong (1,249 people per square klm).

In effect this means ACTAS has to contend with a lower population density (and hence less people close to each ambulance station) compared to many other cities such as Sydney, Melbourne, Adelaide, Perth, Geelong and Newcastle but has some benefit in service planning of good connecting road systems and less traffic density. These are issues that need to be considered before you take into account other variables such as the fact that a number of these cities commencing counting their response times at a later point, up to 90 seconds later than in the ACT.



Clinical Governance Framework

The term clinical governance refers to the processes National Health Services (UK) organisations developed and now use to monitor and improve the quality of the clinical services they deliver. Most Australian State Health Authorities have adopted the concept and its underlying principles as part of their safety and quality strategies. Australia's Health Ministers have placed greater emphasis on improving safety and quality in the Australian Health Care System through a range of national initiatives including most recently the formation of the Australian Commission on Safety and Quality in Health Care.

The relevance of the work of the Australian Commission on Safety and Quality in Health Care to ACTAS systems and processes

The Commission was established by the Australian, State and Territory Governments to develop a national strategic framework and associated work program that will guide efforts in improving safety and quality across the health care system in Australia.

The Commission commenced on 1 January 2006 and its role is to:

- lead and coordinate improvements in safety and quality in health care in Australia by identifying issues and policy directions, and recommending priorities for action;
- disseminate knowledge and advocate for safety and quality;
- report publicly on the state of safety and quality including performance against national standards;
- recommend national data sets for safety and quality, working within current multilateral governmental arrangements for data development, standards, collection and reporting;
- provide strategic advice to Health Ministers on best practice thinking to drive quality improvement, including implementation strategies; and
- recommend nationally agreed standards for safety and quality improvement.

The Commission has issued a range of publications of direct relevance to ACTAS such as:

- the Australian Charter of Health Care Rights which I commend for adoption by ACTAS; and
- measurement for Improvement Toolkit. The Toolkit is in the form of a manual or "menu book" and provides a set of practical methods to measure the safety and quality of clinical health care services.

Proposed National Safety and Quality Framework and Discussion Paper on achieving the directions established in the proposed National and Safety Quality Framework

The Australian Health Ministers' Conference tasked the Australian Commission on Safety and Quality in Health Care with developing a National Safety and Quality Framework which has relevance for all Australian health services and ambulance services.

Following consultation with consumer organisations, jurisdictions, the private healthcare sector, the primary care sector and other healthcare stakeholders, a proposed National Safety and Quality Framework was developed which was designed to guide action to improve the safety and quality of the care provided in all health care settings over the next decade. It contains twenty two strategies for improving the safety and quality of care for patients and consumers. The core theme is that safe, high-quality care is always:

- patient focused;
- driven by information; and
- organised for safety.

There is also:

- a discussion paper on achieving the directions established in the proposed National and Safety Quality Framework;
- a background paper to provide background and context for stakeholder consultation on the proposed framework. The background paper discusses the purpose of safety and quality frameworks and possible methods for implementing, measuring and monitoring the actions contained in such frameworks;
- a range of publications on medication safety; and
- papers on open disclosure (the underlying principles of which have been adopted as a policy by ACTAS).

Consultation on the proposed Framework was open until 11 September 2009 so the final results from the consultation process will lead to review and then ratification of a Safety and Quality framework for Australian Health Services. It is my strong recommendation that ACTAS should base its Clinical safety and Quality framework on the National Safety and Quality framework once it is finalised.

ACT Auditor-General's comments on ACTAS Clinical Governance framework

The ACT Auditor-General's Performance Audit report on ACTAS contained a statement that the "*clinical governance framework in place was not sufficiently robust and well documented to oversight the provision of quality care to patients*".

The ACTAS has most but not all of the components of a good clinical governance framework and it has a new policy document on clinical governance under development.

Below I outline a clinical governance framework for ACTAS to guide further work in this important area.

A proposed Clinical Governance Framework for ACTAS

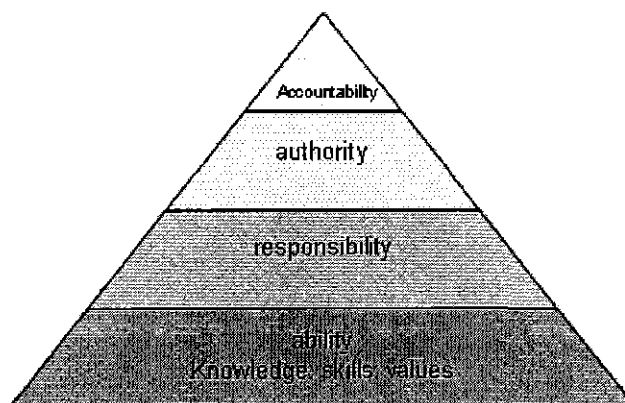
In the interim before finalisation of national work on safety and quality frameworks, I propose a simple Clinical Governance Framework (based on four pillars) for ACTAS which can be varied and added to in the future in line with national developments and is consistent with the framework adopted by ACT Health.

Responsibilities and accountability

The main focus of Clinical Governance is on accountability of care provided to patients. It is everyone's responsibility from the Chief Officer to the first day student to ensure the practice and application of safe clinical care.

The role of executive management is to ensure systems are in place in to enable this while middle management is accountable for implementation of such systems, and to ensure adherence of frontline staff to working within the framework.

Accountability is about more than responsibility. Accountability requires ability, responsibility and authority for action. Different levels of corporate and individual accountability exist in relation to management structures and ambulance practice. The relationship between ability, responsibility and accountability is illustrated in the diagram below.



The key is that:

- all staff have to be accountable for the actions they take;
- staff need to be given formal backing or legal right to carry the responsibility such as a delegation to:
 - an ICP /paramedic - to administer specific drugs and use specific invasive skills; or
 - a Comcen Officer - to assign a particular dispatch priority to a 000 call.
- staff being given, or taking responsibility to take an action provided they follow ACTAS policies, procedures and clinical practice guidelines (hence the importance of having policies and procedures); and
- staff having the knowledge, skills and values required by the ACTAS to perform the work safely and effectively which encompasses initial and refresher training and monitoring of clinical practice.

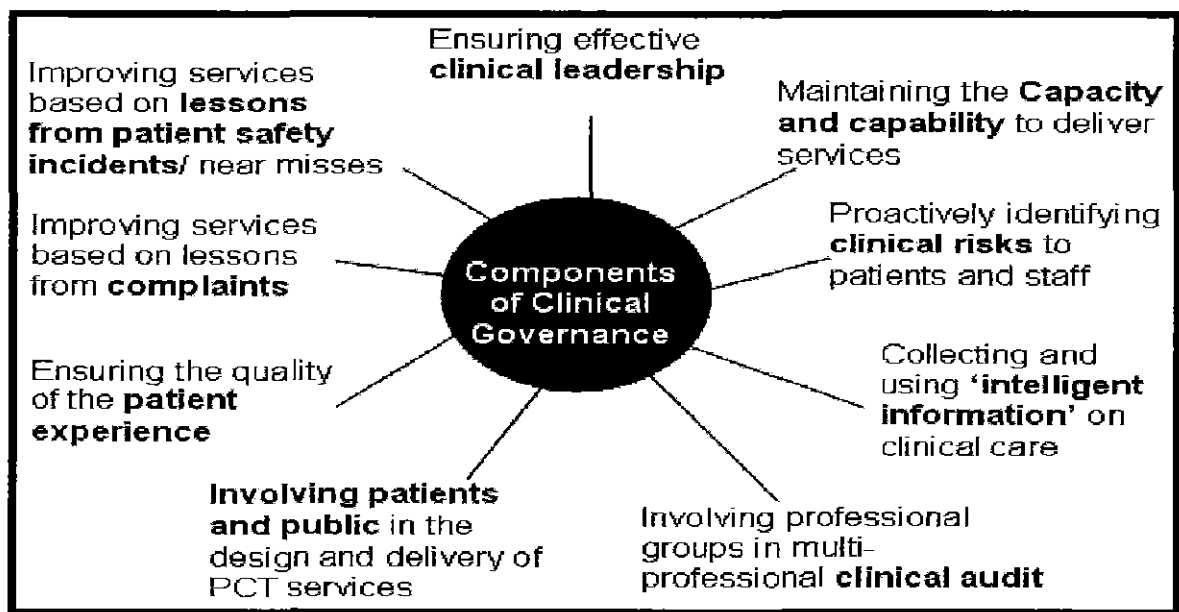
An example could be a paramedic responding to a case:

- the officer has the ability and skills to assess and treat the patient in the pre-hospital care environment gained through in service training (or bridging courses for graduates employed

post full time university study), with these skills maintained and updated through refresher training and clinical updates;

- the officer has responsibility for making decisions on appropriate treatments for patients following clinical practice guidelines;
- the officer is given authority by the Chief Officer to practice independently, administer certain drugs and use invasive skills according to their clinical level of training; and
- the officer is accountable for decisions and their implementation at an organisational and professional level.

The UK's National Audit Office identified the key components to clinical governance in primary care in its report "Improving quality and safety, Progress in implementing Clinical Governance in Primary care - Lessons for the New Primary Care Trusts" (2007) as follows:



Source: National Audit Office/Health Services Management University of Birmingham.

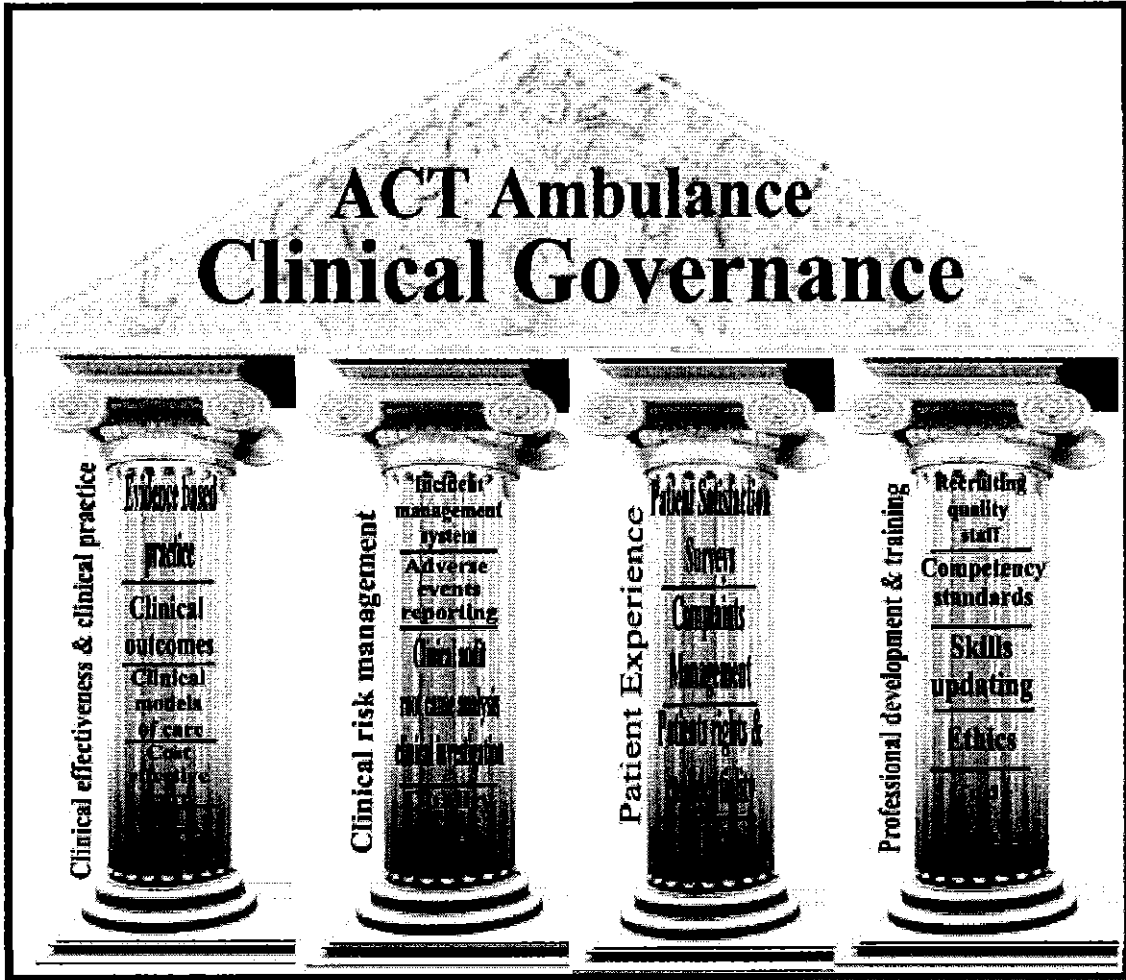
Four proposed pillars for ACTAS Clinical Governance Framework

Below I outline four key pillars of an interim Clinical Governance Framework for ACTAS. I have inserted a range of existing elements into this framework to not only demonstrate that they exist but to put them into a simple schematic so they "hang together" and are easily understood by staff.

The four pillars are:

- consumer value/patient experience;
- clinical effectiveness & clinical practice;
- clinical risk management; and
- professional development and training.

I will now explain these four pillars in more detail and place them in the diagrammatic form below for ease of reference.



Key pillars of clinical governance framework

Patient Experience (1st Pillar)

Monitoring patient experience underpins ACTAS capacity to improve current performance and plan for the future. The patient experience pillar comprises a number of elements which involve interactions with patients and the community. The patient experience pillar in diagrammatic form is shown in the diagram below.




Patient satisfaction surveys

This already exists in the ACTAS who use a common and comprehensive patient satisfaction survey instrument along with all other Australian ambulance services which seeks random feedback from 1500 patients annually on all facets of service including:

- Comcen call taking;
- response times;
- patient care;
- how well paramedics explain the care they are providing to the patient or family member; and
- the comfort of the ride to hospital.

The value gained from ACTAS's annual patient satisfaction survey could be enhanced by selecting:

- 
- a random sample of cases coded by each block. This will give ACTAS management and staff a much clearer picture of areas where improvements can be made, particularly in the area of staff attitude; and
 - inclusion of a random sample of Transport Not Required (TNR) cases. This will also give ACTAS management and staff a better idea as to whether staff are handling these cases to the satisfaction of patients, once patients have had time to reflect on their situation.

An effective complaints management system

Managing complaints effectively is a key function of providing quality health care services. Complaint reports and comments assist ambulance and other health services to make changes so that patients do not experience the same problems again or similar problems do not occur with other patients.

As part of their safety and quality obligation, the ACTAS should manage complaints in a timely and appropriate manner, review their complaint data, identify systemic and recurring problems and to develop strategies to improve clinical practice and the delivery of ambulance care services.

The ACT Auditor-General made some pertinent observations about complaints management within ACTAS and I share a view that this is an area warranting improvement in:

- consistent processes by every manager;
- more focus on timely handling and analysis of trends arising from complaints; and
- a much clearer policy with timelines for handling of complaints.

I recommend that the ACT Health policy on patient's rights and responsibilities should be considered for adoption by ACTAS noting that patient's rights to confidentiality are covered in the Health Records (*Privacy and Access Act*) 1997.

Patient information

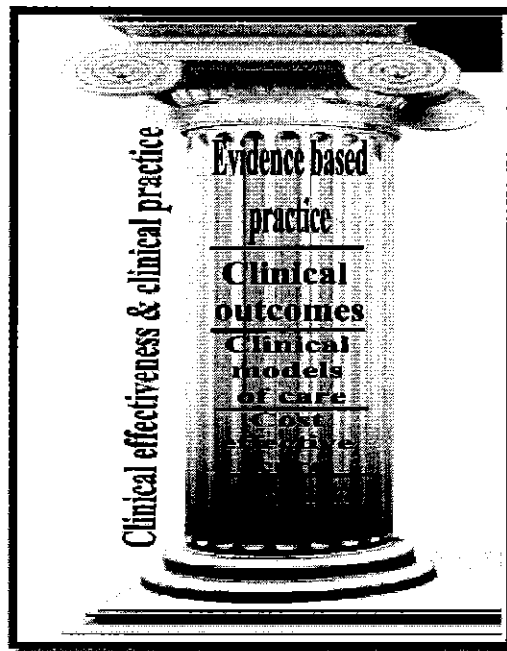
It is also important to gain ambulance related information from ACT Health's patient feedback mechanisms which reflects that for most ambulance patients their experience cover their "total health journey" through the Emergency Medical System including handover by ambulance personnel to hospital ED staff and care provided in the hospital beyond the ED. For the non-emergency patient transport service the feedback may be from outpatient clinics, diagnostic and day treatment services, nursing homes and other health facilities.

I made an effort to test this issue to determine what feedback is received from ACT Health's mechanisms and I was pleased to note that there are some specific patient groups that have been the subject of very detailed analysis from a patient's perspective. One such group is coronary care patients and this process revealed very positive feedback on the professionalism and level of care provided by ACTAS ICP's. Several glowing examples of feedback on ACTAS care were read to me over the phone which demonstrated a valuable additional source of information.

Clinical effectiveness and clinical practice (2nd Pillar)

Clinical performance and evaluation focuses on the introduction, use, monitoring and evaluation of evidence based clinical standards to build a culture where clinical audit is commonplace and expected in the ambulance service.

The second pillar of ACTAS's proposed Clinical Governance Framework is shown in the following diagram.



The clinical effectiveness and clinical practice pillar comprises several key elements.

All clinical practice being based on evidence with this evidence encapsulated into clinical practice guidelines which places emphasis on the effective working of the ACTAS Clinical Advisory Committee. This Committee ideally should:

- involve ambulance personnel covering both clinical practice and education and training so they can have regard to issues of the nature of the pre-hospital care environment, initial training and skills maintenance requirements for any new drug or procedure;
- have expert input from medical specialists from relevant fields i.e. Emergency Medicine, Intensive and Coronary Care, Pediatrics, Anesthetics etc;
- assess the likely frequency and risks of use of any particular additional drug or invasive procedure to determine advice to the ACTAS Chief Officer as to whether it should be introduced into practice at all and also how its application should be monitored to ensure safe practice; and
- monitor research evidence so practice is modified where necessary to the environment.

The focus of **clinical effectiveness** should be on clinical outcomes and minimization of potential to do harm. To date the Australian ambulance industry has only settled on an outcome measure for cardiac arrests. This principle can be applied to other treatments such as the recent joint project between ACTAS and ACT Health targeted at improving clinical patient outcomes of coronary patients.

Medical specialists and the clinical staff of the ACTAS have changed practices for selected coronary cases to improve patient outcomes. This has been achieved by service redesign to reduce time from the patient's home to commencement of a particular cardiological intervention which has demonstrated benefits to patient clinical outcomes. The ACTAS's embracement of this change and the results they have achieved are a first rate example of this principle being applied in practice. Whole of system focus on trauma care may also guide processes to improve clinical outcomes.

Clinical models of care should be based on clinical effectiveness. Embracement of this principle recognises the value of:

- placement of automatic defibrillators at key locations which have throughput of visitors;
- introduction of a paramedic tier into the ACTAS recognising the evidence of the clinical effectiveness of paramedic level care for many case types. This does not mean dismantling the ICP model, but planning a future mix of crews with the principle that crews closest to hospitals should be the focus of paramedic crew placement with ICP crews being of maximal value when they have patients in their care for longer periods;
- exploration of a first responder model of care in those few outlying small pockets of population; and
- tasking a ASO or fire crew when there will be a delayed ambulance response.

Clinical care pathways being appropriate. The recent advances in the coronary care pathways are a good example of this principle being applied. Another example would be the innovative ACTAS Falls Management Program which builds in input from other areas of the health system to identify better clinical solutions for those elderly patients who are frequent ambulance users due to falls. Referral to a new pathway has led to:

- declining ambulance cases related to falls; and
- full assessments of patients by geriatricians and allied health professionals leading to stabilisation of many patients condition enabling them to live with less pain, less risk of falling and injury etc.

Cost effective care is a principle relevant to all health service provision. Understanding of this concept is a critical issue in:

- understanding how hospital services are organised with the most costly and complex diagnostic and treatment services and equipment (linear accelerators, PET scanners etc) being centralized (this is not to understate the safety considerations for complex high cost care such as open heart surgery, transplants etc);
- rural ambulance provision which is not as highly relevant in the ACT given it is virtually a city with minimal rural elements; and

- strategies to address growth in ambulance demand and declining emergency response times.

The 2009 ACT Auditor-General's Performance Audit made some comment about response times by suburb and this issue also deserves some comment with regard to cost effective care.

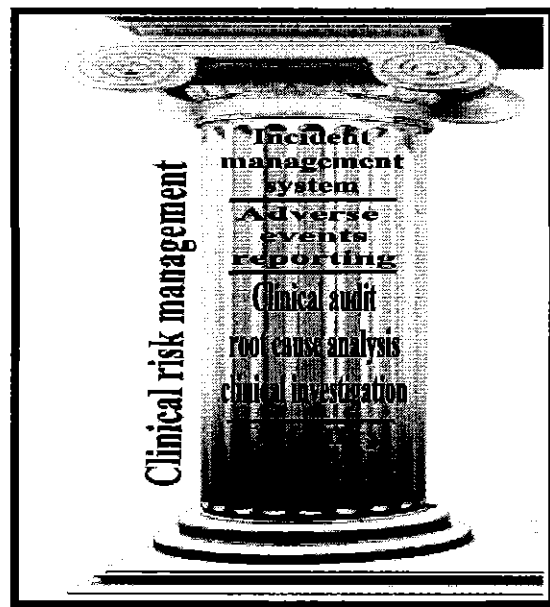
A 24 hour /day ICP crew has a recurrent cost of approximately \$1 million per annum. When the cost effectiveness of care is taken into account this gives added weight to:

- adding a paramedic level tier to service delivery;
- sharpening focus on most cost effective options to address the combined dilemmas of rising demand and declining response performance which would entail;
 - adding staff resources to peak periods not necessarily 24 hour periods to maximize value to taxpayers and government which acts on their behalf; and
 - considering single responders at ICP level as a future service delivery strategy.

Clinical risk management (3rd Pillar)

All staff involved in pre-hospital emergency care have the potential to do harm if they fail to properly assess a patient, if they fail to apply complex skills appropriately and if they administer the wrong medication or in the wrong dosage. Ambulance clinical practice guidelines are generally structured to allow more drugs and more complex procedures as an ambulance operational staff member has acquired additional knowledge and skills and has proven competency to apply the additional knowledge and skills.

As you proceed upwards in the level of knowledge and skills there are more complex drugs and more invasive procedures (such as intubation), that can be used and the possibility increases for serious adverse events increases. This third pillar is summarized in the diagram below.



The clinical risk pillar focuses on minimising risk and improving overall clinical safety. Potential risks are

identified and limited and adverse events are examined for causative factors, particularly for:

- trends within the ACTAS; and
- issues raised across other ambulance services which should alert all services to new risks they have identified so that wherever possible, preventative lessons are shared across all the services.

The pillar comprises:

- consideration of input from coronial cases;
- adverse events reporting systems and review;
- liaison with ACT Health on health care associated infection issues and procedures;
- review of use of specific drugs to monitor their usage in terms of safe practice i.e. scheduled substances such as ketamine and morphine;
- use of root cause analysis methodology to investigate key incidents;
- a quality improvement focus in clinical practice-which would cover a range of issues such as;
 - measuring scramble times;
 - measuring compliance with clinical dispatch criteria and pre-arrival advice in the Comcen;
 - measuring scene times; and
 - projects with a quality focus-coronary case example mentioned earlier;
- an effective incident management system to which I would recommend negotiations with ACT Health to utilise the existing risk management system used throughout ACT Health; and
- effective clinical audit with the existing system needing some review to decrease over reliance on paper based audits and increase real time clinical audits in the field.

Criticisms of ACTAS systems for review of adverse events and clinical incidents

During the conduct of my review I was informed of perceptions of inconsistent handling of reviews of adverse events and clinical incidents. The comments came from middle managers in operations and clinical areas and from some medical specialists in the ACT Health System. The Transport Workers Union submission also raised observations on improvements for clinical governance and review and accountability processes.

The comments indicated opportunity to improve:

- transparency of process (but maintaining confidentiality);
- consistency; and
- independence in review processes.

I note that one recent incident was to be investigated with independent input from an interstate ambulance service which was a positive step towards a more independent process.

Below I outline recommendations to improve processes.

Future Review of Adverse Events in ACTAS

I make three specific recommendations for the future review of clinical incidents and adverse events in ACTAS.

Varying the Clinical Advisory Committee role to include Quality Assurance (QA) but with legislative protection for those QA activities


Several years ago all Australian Health Ministers formed a common view that hospital and health care providers would be better able to pursue clinical safety and quality issues if they had QA Committees which had statutory protection for their records and proceedings and for statutory protection for members of the Committees and those who prepare documents for the Committee.

As a result of this common view the States and Territories enacted legislative provisions to provide statutory protection of properly formed QA Committees to ensure open and honest participation of clinical personnel in the scrutiny of clinical incidents, adverse events and deaths. The legal protection / immunity permits safety and quality issues to be pursued in a confidential forum.

The ACT government, like other State and Territory governments subsequently enacted legislative provisions in the ACT Health Act to provide the Minister for Health to approve a properly constituted QA committee.

It is recommended that:

- a properly constituted QA committee be formed for ACTAS by adding this role to the existing Clinical Advisory Committee and that legislative protection be afforded to that committee by either:
 - the Minister for Health under the existing QA provisions of the ACT Health Act provided that legal advice supports that this is able to be done while ACTAS is outside the health portfolio but clearly providing a high risk health service in emergency situations; or
 - amendment to the *ACT Emergencies Act 2004* to provide legislative protection for a QA Committee for ACTAS.
- the QA committee for ACTAS should continue to have some representation from medical specialists drawn from the ACT Health services with backgrounds in Emergency Medicine, Intensive Care or Anesthetics to:
 - provide expert medical input;
 - to provide a measure of independence;
 - recognise that patients treated by ACTAS are involved in a continuum of care pathway that generally extends into the ACT hospital system; and
 - to provide a mechanism for review of high risk low frequency ambulance clinical procedures such as drug assisted intubations.

- 
- the Committee also have ambulance representation drawn from senior ambulance clinicians;
 - the Chief Officer consider inviting the professional body, the Australian College of Ambulance Professionals to have a representative drawn from ACT-ICPs; and
 - the QA Committee report serious matters to the Chief Officer noting that there may be some issues arise where there is a system issue affecting ambulance and hospital operations.

The QA Committee is to contribute to the assessment and evaluation of the quality of ambulance services and pre-hospital care in the ACT by:

- reviewing the management of any patient who has died while in the care of ACTAS or within a relevant time where the death of the patient was unexpected and there is reason to believe that treatment or lack of proper treatment may have contributed to the death;
- reviewing findings by a Coroner which are relevant to ACTAS;
- reviewing significant clinical incidents and recommending improvements to clinical practice and systems;
- providing de-identified data for education and training so that all clinical staff gain value from systems issues identified;
- communicating where necessary with any other QA committee in ACT Health in relation to matters which fall within their functions or where there is potential overlap; and
- reporting significant clinical risk issues to the Chief Officer, the Medical Director of the ACTAS and for issues with wider relevance where relevant via the Chief Officer to the CEO of ACT Health.

Root Cause Analysis Reviews

Root Cause Analysis (RCA) has become the routine approach adopted across Australian health systems to investigate sentinel events. The RCA approach involves a comprehensive and methodical analysis of the facts of any incident and identifies any root causes and other contributing factors.

RCA focuses on systems issues and if individual staff factors are implicated in an incident. Further investigation addresses how the current system supports the individual and their performance in relevant aspects of the job.

The areas of focus for ambulance investigations should cover:

- Comcen;
- issues of knowledge, skills and competence;
- the work environment relevant to the incident;
- patient facts;
- equipment factors;
- policies and procedures; and
- safety mechanisms.

The recommendations arising from RCA investigations are designed to contain strategies that can be implemented to minimize or eliminate the occurrence of sentinel events in the future.

Professional development and training (4th pillar)

Professional development and training supports and documents attainment of clinical competencies, clinical development and the maintenance of professional standards for the ACTAS. It encompasses the control and monitoring of clinical innovation and ensures new procedures are only introduced where they are regularly audited and reviewed in the same way research activities presently are.

The 4th pillar can be summarized diagrammatically as follows.



The pillar comprises:

- recruitment of quality clinical staff having regard to their education and training, capacity to work in the physically demanding pre-hospital care environment, full referee and police checks for drug and sex offences etc;
- systems to properly assess clinical competency standards on an ongoing basis;
- all staff being given adequate refresher training and skills updates;
- having a code of conduct relevant to provision of ambulance care which could be addressed by consideration of the:
 - code of conduct for ACT Health;
 - the Australian College of Ambulance Professionals code of conduct; or
 - the code of conduct of another ambulance service.

Adopting a code of conduct for ACTAS staff

In health care settings it is common to articulate a code of conduct that goes beyond standard codes of

conduct applicable across all public sector activities.

I commend consideration of the revision of the ESA Code of Conduct for ACTAS staff towards the more detailed code of conduct adopted by ACT Health or the code of conduct of another ambulance service.

The ACT Health's code of conduct is available on its web site and it is consistent with the Australian College of Ambulance Professionals code but more comprehensive. The ACTAS code of conduct should cover such issues as:

- competence and professionalism matters;
- personal and professional behavior;
- professional standards;
- personal relationships with clients;
- quality service provision to patients;
- conflicts of interest. Use of official resources; patient confidentiality; reporting serious offences;
- issues related to discrimination, harassment etc;
- OH&S and injury management;
- compliance with reporting obligations such as for child protection; and
- procedures for breaches of the code of conduct.

Potentially this fourth pillar may involve registration of ICP's /paramedics into the future if the Australian Health Ministers and those working on the national health workforce regulation issues decide upon registration. In the absence of registration, my recommendations on clinical review are designed to improve independence, transparency and consistency.

Open disclosure in Health Care Organisations

ACTAS has adopted an open disclosure policy and this is consistent with the common approach adopted in the Australian health care system. Open Disclosure is the open discussion of an incident that results in harm (or might result in future harm) to a patient while receiving health care.

The objectives of the Open Disclosure Policies are to:

- establish a standardised approach for health practitioners working in hospitals /health services, to communicate with the patient and /or their nominated relatives /carers after a clinical incident; and
- ensure that communication with, and support for all affected patients and staff occurs in a supportive and timely manner.

The following key principles underpin an Open Disclosure Policy:

- expression of regret;
- disclosure of a clinical incident to a patient;
- staff support and training;

- incompetent adults and minors support;
- patient support;
- clinical governance;
- confidentiality; and
- fairness.

The planned introduction of Victorian Ambulance Clinical Information System (VACIS) by ACTAS is an initiative which will strengthen clinical governance.

The ACTAS plans to introduce an excellent electronic patient care report form based on the VACIS system developed by Ambulance Victoria. This system has also been implemented in ambulance services in Queensland and Tasmania. NSW are currently evaluating VACIS and the product is attracting international interest particularly from the UK and Middle East.

It involves use of a toughbook computer with software able to not only electronically record care given to the patient but give ICP's /paramedics ready electronic access at a scene to:

- information on drugs and drug interactions;
- clinical protocols and procedures; and
- animations of complex ambulance procedures.

When the ACTAS implements VACIS, the service's ICP's will collect comprehensive information about the condition of the patients they attend and the treatment provided. This data will be entered into portable computers running the electronic patient care record system with significant improvements to data analysis because of the electronic platform.

This world leading system will ensure the ACTAS will capture substantial amounts of clinical data allowing the ACTAS to:

- better train its ICP's /paramedics;
- review clinical standards;
- conduct pre-hospital research;
- audit dispatch priority codes; and
- have a body of data which will help design its services for the future.

Ambulance Victoria's willingness to collaborate with other ambulance services and share their technological advance is a great example of interstate collaboration within the ambulance industry. There is a multi-jurisdiction collaborative partnership amongst ambulance services to further develop this product and to date this partnership has seen:

- the Queensland Ambulance Service developing educational materials able to be used by all participating ambulance services to guide their staff; and
- the Tasmanian Ambulance Services developing an electronic interface between this system and the EDIS software commonly used in hospital emergency departments which will enable electronic interchange of clinical treatment data.

This initiative will be a further key step in the modernization of the ACTAS and have added benefits going forward of providing a source of comprehensive clinical information which will be able to be used to:

- better monitor, evaluate and review clinical practice at both a whole of service and individual practitioner level;
- support safety and quality processes, clinical service improvements and clinical research; and
- guide education and training strategies including refresher training down to individual officer level.

VACIS can include a system that pre-populates information for each entry such as the time of a call and location, which saves ICP's /paramedics from keying in this basic information into the toughbook computer.

The ability to collect and collate national clinical information on pre-hospital medical treatment from the States and Territories using the VACIS system and reporting this information in a coordinated way will prove valuable for ambulance service planning, treatment and research, and for the wider health industry into the future.

Cooperation and Coordination with other Emergency Services

The ACT's emergency services (fire, rural fire, ambulance and SES) are all managed within one agency with Chief Officers being located in the one building which maximizes opportunities for good working relationships, and collaborative strategies to deal with issues and challenges facing the ACT from an emergency management perspective. The working relationships between the emergency services appear positive and my only recommendations on this issue are as follows:

- the effective workings of the ESA Comcen could be improved from a community safety perspective by implementation of the specific recommendations identified in the Comcen section in this report;
- the practice of responding urban fire crews to medical emergencies when there will be a delayed ambulance response should continue as it is a very important community safety strategy which reflects the internationally proven capability of fire personnel to save lives in some medical emergencies (particularly cardiac arrests), with the advanced first aid skills of firefighters coupled with the equipment routinely carried on fire appliances (automatic defibrillators and portable oxygen);
- the ambulance and rural fire agency should explore the opportunity to use rural fire crews to first respond to a few specific types of medical emergency (particularly chest pain), in the few small rural communities on the outskirts of the ACT where ambulance caseload levels are very small but response times are long. This would necessarily involve equipping the units with an automatic defibrillator and provision of training in first response to a basic range of medical emergencies; and
- the fire and ambulance services continue to work together on station location and co-location strategies in response to demand patterns.

The importance of linkages with the Health System

The current placement of ACTAS outside the health portfolio is uncommon in Australia, New Zealand, the United Kingdom and Canada. Apart from the ACT, Queensland is the one remaining example in Australasia of an ambulance service falling outside the health portfolio and the management of the health system.

The South Australian Ambulance Service was also previously outside the health portfolio but reviews carried out of their ambulance service (2003) and their health system led to a 2003 recommendation in that jurisdiction *"that at an agreed time between the relevant Ministers and portfolio Chief Executives, administrative responsibility for SAAS should move from the Department of Justice to the Department of Human Services, in order to allow more integrated planning and delivery of primary and emergency care services"*. That review also made specific mention of a need for *"a significantly stronger focus on developing an effective primary care network, on managing hospital workloads more effectively and on systems for integrating clinical governance"*.

The more recent Queensland Auditor General's review made comment and recommendations on the various issues related to this strategic issue as follows:

Interface with Queensland Health


Recommendation 7.1

"Queensland Ambulance Service and Queensland Health implement improved data collection, information sharing and coordination systems to:

- *monitor the level of inter-facility transfers provided under the service level agreement with Queensland Health;*
- *establish better clinical coordination processes for all urgent inter-facility transfers both road and aero-medical including coordination of clinical escorts;*
- *provide QAS with information on emergency workloads and inpatient capacity as early as possible when transporting patients to public emergency departments;*
- *implement an enhanced clinical governance system for all patient transports addressing patient satisfaction, complaints, clinical audit, and safety and quality measures; and*
- *report on a quarterly basis to the Government on key indicators including off-stretcher time, access block targets and treatment time in emergency departments.*

Recommendation 7.2

Queensland Health is to introduce improved processes for managing patient flows, in particular access block in emergency departments, including better alignment of staffing with need, mapping tasks and workflow, implementing fast track treatment programs where appropriate, streamlining and improving discharge systems, and enhancing referral and transfer arrangements.



Recommendation 7.3

The option of having the QAS integrated organisationally with Queensland Health be considered in the medium to longer term in the event demand management and QAS /Health services integration measures do not deliver appropriate results “


It is clearly a matter for the ACT government to determine the strategic alignment of areas of government service provision so my focus remains in identifying a number of opportunities for ACTAS and ACT Health to work more closely to:

- strengthen joint strategic and service delivery planning to meet the current and future challenges facing the health care system;
- coordinate demand management strategies across the entire health system;
- improve clinical governance and safety and quality systems; and
- improve non-emergency patient transport services.

The ACTAS is the emergency pre-hospital care and patient transport arm of the ACT's Emergency Medical System so there needs to be very strong linkages with various components of ACT Health at the clinical practice interface and with the safety and quality and clinical governance components.

Strong relationships are needed between ACTAS and ACT Health in areas such as:

- hospital ED's which receive the patients transported by ambulance so there needs to be a very close working relationship covering a wide range of issues including:
 - patient handover and triage;
 - advance alerting of arrival of category 1 patients and transport of multiple casualties;
 - clinical feedback mechanisms to foster clinical excellence; and
 - emergency department overload and by-pass options to the other hospital (Canberra Hospital or Calvary Hospital) when ED demand pressures are high;
- medical Specialists in various fields (Emergency Medicine, Anaesthetics, Paediatric care, Cardiology, Psychiatric care, Obstetrics, Palliative Care etc), to ensure provision of expert clinical advice to ACTAS and its Clinical Advisory Committee forming Clinical Practice Guidelines for ICP's /paramedics on:
 - specific areas of clinical practice including drugs and drug dosages and safe use of invasive clinical procedures relevant in pre-hospital care;
 - changes to systems and clinical practice to reflect advances in medical practice-such as the acute coronary care project saving lives through cutting time to thrombolysis;
- the safety and quality personnel of ACT Health who are working on strategies endorsed by all Australian Health Ministers to improve patient safety and quality of care and reduce potential for adverse events; and

- 
- adult retrieval services where hospital patients with very high acuity need to be transported to Sydney for super-specialized care-usually with a transport crew comprising both a doctor and a flight paramedic working as a team.

If ACTAS is to remain outside the health portfolio there needs to be a strong strategic level partnership with ACT Health to:

- ensure consideration of impacts on ambulance service provision of:
 - health policy changes;
 - service delivery changes and improvements;
 - new initiatives such as the Health Direct and Access Health projects; and
 - gaps in other areas of service provision which can have impact on ambulance such as access to GPs after hours, mental health crisis services, alcohol and drug services etc; and
- capture feedback from patients through the mechanisms used in ACT health such as the Listening and Learning project.

Non emergency Patient Transport (PTS)

ACTAS developed a non-emergency patient transport service some years ago and reflective of a desire to maximize benefits in a small jurisdiction lacking economies of scale, it created a dual role of ASO with officers trained in both:

- non-emergency patient transport; and
- ambulance call-taking and dispatch.


I am not aware of any other jurisdiction where this mix of roles exists but I appreciate the factors behind its genesis. I am not sure that this dual role should continue into the future as the demand for non-emergency patient transport will certainly continue to rise due to;

- the ageing of the ACT population;
- the burden of chronic care anticipated by the ACT's Chief Health Officer which will be the predominant issue in ACTs health system into the future; and
- the current and expected shortages in GP workforce numbers in the ACT and the redistribution of GPs to larger practices in towns.

The ACT's recent General Practice Taskforce Report released in September 2009 recognised that there will be an increased demand for transport of patients to health care appointments and the report recommended that provision should be made for this in the ACT's Sustainable Transport Action Plan 2010-2016.

Important role of PTS to functioning of the health system

It is important to recognise the importance of effective PTS services to the overall functioning of the busy health system as timely PTS services help hospitals manage:

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- their demand for hospital beds on both a day to day basis and especially when there are peaks in acute admissions necessitating escalation of bed management strategies;
 - admissions and discharge policies;
 - movements of patients to access outpatient and specialist clinics;
 - movement of patients to access high cost diagnostic and day treatments including radiation therapy, CT scanning etc; and
 - elective surgery throughput.

PTS services are an essential health transport linkage supporting:

- the effective provision of residential aged care facilities-enabling movements of residents to access acute care services when needed before returning to lower cost residential care beds; and
- the effective provision of care in the community for thousands of people with chronic health conditions.

Options for managing PTS provision

The options for PTS service provision are:

- retention as a component of ACTAS;
- transfer of the PTS function to ACT Health where it could be managed by hospitals as the main client or connector for PTS services; or
- allowing the private sector to provide the service.

I strongly favor retention of PTS services under the management auspices of ACTAS for the following reasons:

- it is the public interest for ACTAS to have ready access to the surge capacity afforded by PTS vehicles and staff in the event of a major multi-casualty incidents which is especially important in a small service which could otherwise have its transport capacity more easily overwhelmed (this also notes that PTS vehicles can use the same radio network);
- PTS staff (in the case of ACTAS, the ASO's) are given a clinical skill set which is a valuable adjunct to emergency response capacity at times of caseload peak whereby ASOs can be dispatched to provide a first response to an emergency while the next available emergency crew is dispatched to take over care; and
- it would undermine in the short term the strategy of ASOs having dual roles in PTS and Ambulance Comcen.

The fundamental issue driving options for the future of PTS service delivery in the ACT is the overall lack of economy of scale in providing separate ambulance and PTS services in a small service.

The "second best" option would be for the hospitals to manage PTS services but this is not favored as it diminishes the public interest advantages created (or in this case maintained) by the symbiotic linkage between ambulance and PTS services.

Issues with the combined ASO role

Some issues have clearly emerged over time with the combination of roles of ASOs in both PTS and ambulance Comcen.

The issues that have arisen include:

- some ASOs have a lesser preference for working in the Comcen;
- some ASOs have had expectations to advance into the ACTAS's ICP program;
- some ASOs desire to work 10/14 hour shifts like in ambulance operations; and
- skills maintenance and refresher training issues for multiple roles and particularly for the occasional but vital role in responding to emergency cases at times of peak caseload.

In terms of the issue of lesser preference for some ASOs in working in the Comcen, my opinion is that Comcen Officer is a much harder role as part of a small team managing the "minute to minute" workload of the entire service with little respite (reflective of demand patterns) confined to the one room for extended periods balancing competing demands for limited resources. Whereas in the PTS working environment you interact with patients and their families /carers and other health care workers on a face to face basis with some variety during the day and I suspect more positive feedback from those you are serving.

In job classification terms clearly the Comcen role is the more technically complex and I suspect that preference for working in PTS services compared to Comcen would be lessened if that role was paid a lesser amount reflective of the differentials in complexity of training and level of responsibility.

This is an issue to have high regard for in considering future options when the PTS service needs to be expanded. I would not recommend employment of more dual role (ASO) personnel unless there is no other alternative. This would most likely mean that additional PTS staff employed in the future would be at a lower classification than ASOs to reflect this change.

On the issue of some expectations for some ASOs to do a career transition from ASO to ICP this is natural aspiration. Particularly given the vital role played by ICPs in serving the community, their very high level of community respect, much higher income and status, shift penalties and roster arrangements.

There is also a very significant differential in knowledge, academic ability and aptitude for an ICP compared to an ASO role. Those experienced in assessing tertiary level students very confidently predict significant failure rates for those entering health and paramedical science fields that are not academically strong in sciences. Aptitudes and skills in sciences are needed to meet contemporary standards in anatomy, physiology and clinical care for staff to progress to the ICP level.

On the issue of desire to work 10/14 hour shifts this is also a natural desire given the "off-the-job" benefits linked to this roster pattern which is commonplace in the ambulance and fire industries. However it is not a roster pattern that suits the Comcen role and is inconsistent with OH&S standards

sought for those working with visual display units for extended periods, let alone those working in a time critical and stressful work environment such as an emergency Comcen.

While the 10/14 hour shift is a common carryover from ambulance operations to Comcen (because many Comcen officers formerly came from an operational background), it is not a roster pattern that any ambulance service manager would seriously contemplate extending as the "desired norm" for a busy Comcen environment.

It is also not a roster pattern that suits the workload pattern for PTS services which is more predominantly linked to weekdays and "business hours".

Patient care skills and skills maintenance for ASO's

Clinical skills are part and parcel of training of personnel working in patient transport roles and the course for PTS staff shares common elements with the courses taught to:

- volunteer Ambulance Officers in ambulance services in Western Australia, South Australia and Tasmania ; and
- community officers who perform emergency response roles in Ambulance Victorian.

There are 319 ambulance response locations in Australia, mostly in rural areas, where the ambulance personnel who are tasked to respond to all emergencies in their coverage area are all trained to very similar levels as ACTAS ASO's. There are a further 86 ambulance response locations in Australia and 105 across Australia and New Zealand where ambulance volunteers (trained to the same level as the ACTAS ASO's) work alongside career paramedics or ICP's in mixed career /volunteer stations.

In addition there are growing numbers of locations where volunteers receive less clinical training than ASOs to equip them to perform first response roles to medical emergencies (but not transport).

Against this background I find no issue whatsoever with the tasking of ASO's to:

- medical emergencies in the ACT at times of peak caseload; and
- play a support role in multi-casualty incidents.

The only issue with regard to this practice continuing is to ensure that ASOs receive regular and on-going refresher training in their clinical skills so they can adequately and confidently fulfill this surge capacity role in the public interest.

The best ways this can be achieved are better left to ACTAS, its ASO staff and their industrial representatives to identify and work through. Without being provocative, I would not discount the option of ASO's having structured time providing a support role as part of a two person general ambulance duties or emergency crew (not as a third officer "observing") for time limited periods such as two or three day shifts per annum as this would strengthen their capabilities to play a role in multi casualty incidents and at peak periods.

I would make the added point that there are 105 ambulance stations in Australia which have this mix of crewing skills noting that ASO's in the ACT have an equivalence of skills to Volunteer Ambulance Officers in South Australia, Western Australia and Tasmania and the Community Officers employed in rural Victoria.

This would be to the overall benefit of service provision and for ASO's to be seen as important members of the ACTAS team. The PTS role is also a work area where some emergency response personnel may consider working for various reasons into the future if they are choosing a less stressful work environment.

Ambulance Comcen

Emergency medical care starts right from a '000' emergency call being answered in the ambulance Comcen where calls are rapidly triaged, crews dispatched and vehicles monitored en route by automatic vehicle location technology. In some cases, the pre-arrival advice given by trained ambulance Comcen officers saves lives ("hear and treat"), before arrival of an ambulance crew.

The combined ESA Comcen is a vital component of all ACT's emergency services in:

- receiving 000 and other calls for assistance;
- assessing /triaging thousands of calls;
- providing important pre-arrival advice which can save a life or reduce health risks;
- dispatching emergency responses to the right location and monitoring the progress of crews to incidents; and
- keeping hospitals informed of impending arrivals of seriously ill and multiple patients.

This effectively operates as two Comcen's (one for ambulance and one for fire and SES services), working in the one room sharing a common CAD system and supporting technology (automatic vehicle location for ambulance and urban fire crews), providing linkages to mobile data terminals in emergency vehicles.

The combined Comcen needs to improve its capacity to handle periods of peak demand through improved interoperability. The systems are already in place to achieve this but they must be consistently and capably used by staff in for the overall benefit of the ACT community. To do otherwise would not be in the public interest in terms of both effective cooperative arrangements between emergency services and value for money for government.

The ambulance Comcen is feeling the strains of managing the growth in ambulance caseload and this report identifies a number of strategies to strengthen this vital "nerve centre " so that it can properly support both emergency operations and the non-emergency transport service both of which remain critical to the effective functioning of the ACT Health system.

The improvements recommended below are designed to strengthen the Comcen to cope with the increased demand for ambulance services which has already been experienced (and which will continue

to increase as the population grows and ages), as each and every 000 emergency call must receive high quality call handling which includes consistent call triaging and pre-arrival clinical advice (hear and treat) and effective dispatch decisions.

To achieve this ESA should consider in any review of the Comcen that:

- all Comcen personnel-including every fire service officer rostered to the Comcen must be able to:
 - fully answer a medical emergency 000 call using the clinical decision support systems which are an integral part of the CAD System;
 - assign the correct dispatch priority based on intelligent questioning of the caller based on the clinical decision support system; and
 - give appropriate pre-arrival clinical advice (which in some cases can save a life before an ambulance crew arrives at a scene);
- every ambulance Comcen staff member must equally be able to answer and capably handle other types of emergency requiring fire and SES response so that the Comcen is able to cope with any surge in demand for any service and maximize the overall effectiveness of the Comcen's capacity to support all emergency operations in a jurisdiction which has diseconomies of scale but the advantage of a co-located Comcen and a common CAD platform; and
- that all staff working in the Comcen receive adequate and on-going training to be able to handle every type of emergency call.

Based on experience in emergency services Comcen's across the world, Comcen staff should be chosen to carry out the important Comcen roles based on the full range of aptitudes and skills required for the roles (including very good keyboard skills), so as to avoid problems created elsewhere attempting to place injured operational personnel into roles for which some are poorly suited.

The staffing of the ambulance component of the Comcen should be enhanced by adding an ICP level position at to handle higher level clinical advice. This also recognises that an important strategy to manage growing ambulance demand is to explore alternate clinical pathways for callers (other than ambulance response and transport to hospital) where it is considered clinically appropriate to do so.

This will include (but not be limited to) verbal and technological interfaces with the 24 hour health advice line Health Direct and referrals to other components of health and welfare services (including mental health crisis teams, domestic violence services, palliative care services, Lifeline and Youthline services etc). All ICP's who fulfill this role should be able to rotate into emergency response roles to maintain clinical skills.

The strategic importance of managing and leading effective ACTAS Comcen services in support of both emergency ambulance response and routine patient transport operations (when both are experiencing ongoing demand growth) needs to be given greater recognition in the management structure. The leadership of ambulance Comcen includes a future reform agenda (see above) to both strengthen and achieve full standardisation of current Comcen services and improve interoperability with fire Comcen personnel. This should be recognised by:

- devoting a senior position at general management level to leadership and management of ambulance Comcen, elevating it from its current situation where its management is reliant on the role being carried out on a portfolio basis in conjunction with other duties;
- this Comcen leadership role should be a non rostered position preferably filled by a person with ambulance clinical background to lead the reform agenda;
- the status of the position with ACTAS should be elevated in accordance with the recommended structure so that the manager of ambulance Comcen is part of the executive management team who reports directly to Chief Officer; and
- the successful incumbent should not be required to maintain ambulance clinical skills to ICP level.

The response of a fire crew to provide a first response to a medical emergency when there will be a delayed ambulance response is a fundamental community safety strategy which should continue.

This recognises that the advanced first aid training of fire personnel together with standard equipment carried on urban fire appliances (oxygen equipment and automatic external defibrillators) can save a life in a number of types of medical emergency, particularly in cardiac arrests. All Fire Service Comcen Officers, supported by their Comcen Station Officer and existing SOPs, should immediately dispatch a fire crew to first respond to a medical emergency. Delays in referring any such request to a Duty Officer when this is inconsistent with Fire Service SOPs should not occur.

Consistent with the new governance arrangements implemented in the ESA following the re instigation of the Chief Officers for all services, the Comcen now reports directly to the Commissioner. This provides the opportunity to build upon and enhance, formal mechanisms (standing committee) to oversee strategic emergency Comcen issues, across all emergency services in the areas of:

- technical support priorities;
- achieving interoperability by all Comcen personnel;
- introduction of a Comcen performance monitoring system which covers call answering standards (call answering time by each operator and by time of day, use of /adherence to CAD systems components); and
- surge capability at times of major incidents.

Further supporting this interoperability, the ACTAS should consider adopting the Advanced Medical Priority Dispatch System /ProQA software to replace its current clinical decision support system, noting that this software is considered world best practice and has been adopted by the majority of other jurisdictions specifically in Queensland, New South Wales, Victoria, Tasmania, and South Australia.

In recognition that the Comcen is the "nerve centre" for all the emergency services it should not be a workplace area where recline practices should be permitted by personnel of either service, regardless of level /seniority. If workload levels at night have enabled some recline this is an indicator that overall staffing resources at night are available to be redirected to other activity.

The Medical Priority Dispatch System

The Medical Priority Dispatch System (MPDS) referred to above has been in use in Australia since 1996 in the following agencies (dates may be approximate):

- 1996 Queensland Ambulance Service (statewide);
- 1996 Metropolitan Ambulance Service (Melbourne metro area);
- 2001 St John Ambulance Service Northern Territory;
- 2002 Tasmanian Ambulance Service;
- 2002 Ambulance Service of New South Wales;
- 2005 Rural Ambulance Victoria (which has now been incorporated into Ambulance Victoria); and
- 2008 South Australian Ambulance Service.

All services using the MPDS have undertaken a comprehensive implementation of all necessary components of the system including in-house instructors, ongoing compliance monitoring, continuing dispatch education and extended service plans for software and hardware items.

The developer and owner of the MPDS is the National Academies of Emergency Dispatch (NAED), based in the USA. As licensed users of the system, the Australasian ambulance services (including New Zealand), have established a management and user group that assesses the implementation and ongoing use of the product. This group is also responsible for making content change recommendations to the Academy. The membership of this group includes service medical and Comcen Directors, paramedics, Comcen management and users of the system itself. Australia has a specific language version of the protocol (codenamed 'AUE') to cover local clinical, cultural and language requirements of the Australasian region.

The content of the protocols is developed in consultation with various professional bodies such as the American Heart Association and Australian Resuscitation Council. The protocols are frequently assessed and changed to represent best practice processes with new versions of the protocols released approximately every two years.

Management Structures and Processes

Feedback on current systems and processes

I received feedback on perceived inadequacies with the current management structure from the Transport Workers Union and middle managers struggling with the challenges posed by increased scale and activity and reliance on portfolio responsibilities added to day to day supervisory responsibilities.

Many of ACTAS's middle managers were in acting positions which of itself raises difficulties in having consistency of approach. Added to this were concerns about staff by passing the chain of command and the volume of supervisory tasks for day to day operations which are a direct result of increased activity, increased operational staffing and more response locations.

Feedback obtained from a number of areas during the review pointed towards shared concerns about the adequacy of the current management structure of ACTAS to cope with the current scale of operations and the challenges confronting the service with ever increasing caseload activity.

Underpinning some of the negative views expressed was a strong and common desire to find better solutions leading to a more cohesive and clearer management structure, clearer lines of responsibility and accountability, improved clinical governance and clinical review systems. There was also a common understanding that there were many reasons to be proud of ACTAS and its staff, its day to day achievements in serving the ACT community and its general level of care. The common desire was to find solutions to refocus attention on priority areas for the community's benefit.

What is clear is that the current ACTAS management structure has outgrown its relevance in a number of respects all directly linked to the increase in size of the organisation over the past two decades in line with increased staffing and response locations to meet the increases in ambulance activity.

Many of the ACTAS staff I met with made the observation that the service can no longer be managed like a small family business. ACTAS clearly suffers from a lack of economies of scale in its management structure and as a result there has been an over-reliance on rostered duty managers covering key portfolio areas which in larger areas would be covered by a separate manager. When a significant change is underway the workload levels to design a system improvement and oversee its implementation can be quite significant.

There are a number of areas in which *management processes* can be strengthened in any organisation. These include staff at all levels in the organisation following the chain of command consistent with an ordered and disciplined emergency services workforce. This improves the capacity of the organisation to:

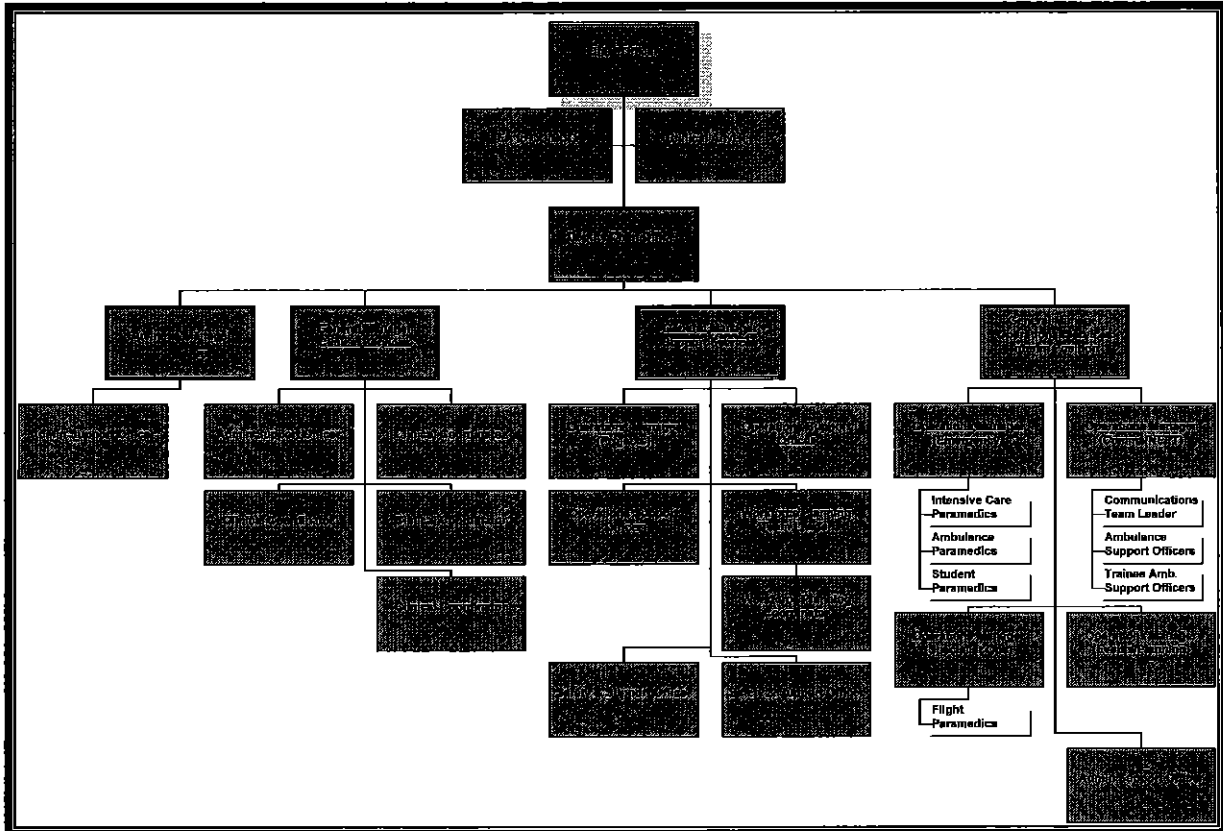
- have the highest level of management focus on strategic and systems issues and not be drawn into day to day management issues to the detriment of their higher level duties;
- enable middle managers to be properly held accountable for decisions they make within their areas of delegation;
- avoid perceptions of favored dealings or "management shopping"; and
- provides processes for dealing with poor performance which are well understood and transparent to all.

Key to this is service policies and procedures being readily available to all staff (in electronic format) if possible. This provides clear understanding of expectations and the opportunity at all levels of management to be involved in performance management processes and opportunities to benefit from performance development activities.

A common issue identified related to how clinical incidents and adverse events can be handled in a more structured, consistent manner. Details on this specific recommendation are addressed in the section on Clinical Governance.

Current management structure

The management structure provided to me as reflective of the current situation is depicted below.



Proposed management structure for the future

A briefing for the middle management team of ACTAS was held on Tuesday 16 February 2010 to enable me to provide feedback on my views on appropriate changes to the management structure and structural alignments to increase the capacity of the ACTAS to move forward into the future and best meet the challenges it faces. Transport Workers Union representatives also attended this meeting and participated in discussions.

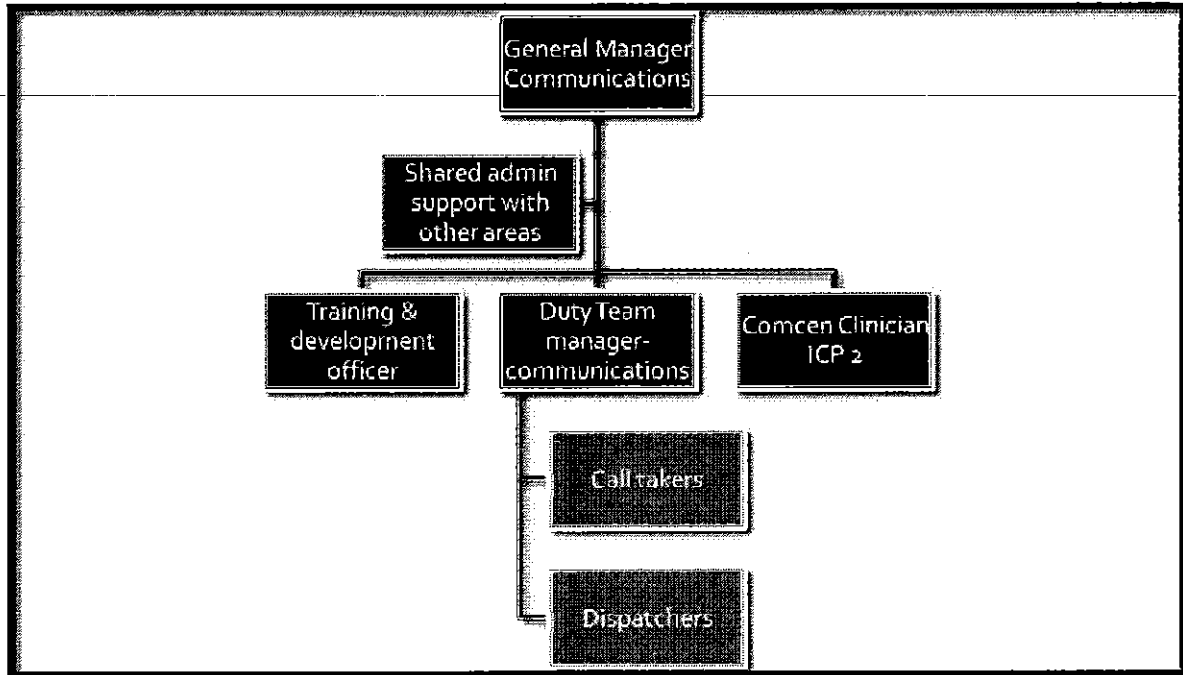
The structure discussed at that time with minor changes was as follows:

- elevation in importance of management of ambulance Comcen within the management structure and having a 24 hour a day higher level clinical presence in the ambulance Comcen;
- strengthening of operational management through 24 hour shift supervisors /duty managers who carry no portfolio responsibilities but who manage day to day emergency operations;
- realignment and strengthening of strategic business development;
- greater use of non rostered staff at middle management level to:
 - drive development and implementation of policies and procedures;
 - strengthen clinical governance systems;
 - manage major projects with the impending implementation of the VACIS system being a critically important project;
 - ensure effective integration (operations, operational support, education and training, rostering, occupational health and safety and Comcen), within ACTAS to support effective service delivery for both emergency and non-emergency operations;
 - improve continuity (noting that rostered staff have more discontinuities with senior management by virtue of rostered work patterns and higher leave entitlements) by the introduction of 24/7 shift supervisors for both emergency operations and ambulance Comcen to capably handle rostered operations and “free up” middle management; and
- a linking of all the components of clinical governance within an overarching framework which is readily understood by staff at all levels.

Ambulance Comcen

The additional General Manager(GM) Comcen that I propose be created is a 5 day week position which should be filled on merit and then included on the executive management team comprising the Chief Officer, the Deputy Chief Officer and the General Managers. In my view the position requires ambulance clinical qualifications.

The proposed Comcen structure is outlined below.



The role of the GM Comcen will include:

- higher level management of all Comcen issues;
- interface with other emergency services and ESA technical staff on Comcen issues;
- interface with ACT Health on demand diversion at point of call for inappropriate ambulance demand;
- clinical governance of Comcen;
- liaison with other General Managers on education & training needs and resource deployment issues; and
- implementation of enhanced Comcen framework including introduction of Comcen clinicians (ICP level 24/7), and liaison with the GM Operations to determine the optimal use of the above positions in terms of their relationship with Shift Supervisors in operations on issues such as tactical decision making.

Clarifying the roles and responsibilities and inter-relationships of Comcen and Operational Shift Supervisors

I recommend that key stakeholders be consulted in the development of the duty statements (roles, functions and duties of both the Comcen clinicians and the Operational Shift Supervisors) as an integral development phase of the positions.

Effectively, the roles and responsibilities of these two new roles must be fully clarified and the ACTAS management team must dovetail their duties and responsibilities to optimise the day to day management of ACTAS.

Functions of the roles may include the following:

- to effectively supervise Comcen employees and co-ordinate the provision of ambulance services through the efficient deployment of ambulance resources;
- provide clinical advice, direction and operational support;
- undertake the role of Ambulance Commander for the initial deployment of resources in the event of a major operational incident until command passes to a more senior officer (in order to maintain accreditation skills, on road rotation should be a requirement of this role);
- supervise and coordinate deployment of available ambulance resources to facilitate the provision of high quality, timely and appropriate clinical response to requests for ambulance services;
- supervise the implementation of operational procedures in the Comcen in accordance with service policy;
- monitor key performance indicators for Comcen and report outcomes to the General Manager Comcen;
- handle a level of enquiries from the media, other health care providers and other emergency service organisations within parameters set by ACTAS management;
- ensure that senior officers are advised of incidents in accordance with service policy;
- provide mentoring and coaching to staff to ensure organisational and personal development objectives are achieved in the Comcen;
- liaise with the rostering officer in Operational Support on the compilation of Comcen staff rosters in consultation with the GM Comcen;
- assist Comcen staff with clinical decision-making in situations outside Standard Operating Procedures, including consultation with medical practitioners as required;
- provide clinical input to dispatch decisions including helicopter dispatch in accordance with standard operating procedures for helicopter retrievals and inter-hospital transfers;
- assist with coordination of any higher acuity level transfers, including interacting with the senior ACT medical specialists, interstate and intrastate hospitals, including management of competing priorities;
- provide out of hours assistance and advice with issues related to Electronic Patient Care Reporting once the VACIS system is implemented;
- assist other Comcen staff with call taking and dispatch coordination as required;
- maintain and audit appropriate Comcen records, including undertaking investigations of complaints and incidents; and
- assist the GM Comcen with the collation of statistical information.

Management of Operations

There are two key changes in this area that I recommend. The first is creation of Shift Supervisor positions working 24/7 who collectively will manage day to day operations taking all day to day shift supervision duties from current operations managers. The section above also highlights the role which could be undertaken by the 24/7 Comcen clinician role in tactical decision making so a key focus of the

entire management team is to determine how these two new roles will inter-link to optimally benefit ACTAS.

The second key change is for the transition of the current shift operational duties undertaken by middle management to the shift supervisor positions. This will require the ACTAS to undertake a sizing exercise of any new middle management position which would not involve shift work.

Current operational manager positions will be freed up of day to day operational supervision. To maximise the benefits of the new shift supervisors, the operational manager positions should all be reviewed with the aim of reducing the numbers of middle managers working shift work to enable ACTAS to move forward in a number of policy and systems areas with the added benefit of having the vast majority of its middle management structure working day work. This will improve integration of their collective higher level activities reducing some of the discontinuities inherent in current portfolio arrangements.

In this change, some existing operational managers may choose to continue their career in rostered supervision positions as Shift Supervisors or Comcen clinicians subject to ACTAS considering the most effective and merit based process to move towards the revised structure.

These new Shift Supervisor positions should be aligned to blocks on the roster so there will a single point of focus for issues raised by operational staff on each block and this should cease "management shopping" which is undermining consistent management practice, lessening morale and disenfranchising the current middle management tier".


It will be up to the General Manager (Operations) to ensure Shift Supervisors follow consistent decision making practices in accordance with ACTAS policies and procedures (which will also need to be more clearly documented in some areas).

I suggest the GM Operations (in consultation with the Chief Officer and Deputy) determine the best division of current portfolio responsibilities (excluding Comcen which transfers as a separate management role which is elevated in importance) amongst the revamped positions to cover emergency operations, non-emergency patient transport, special operations etc. In carrying out this division due regard will need to be given to the scale of different tasks (with some being high volume activities such as non-emergency patient transport), while others involve less volume of activity but a higher profile i.e. helicopter operations, major event safety planning etc.

Middle management positions which move to a five day week should be considered for appropriate classification and allowance for market factors to ensure quality people take on middle management roles. Where relevant, consideration should be given to payment of an allowance in lieu of after-hours contacts for some but not necessarily all areas of responsibility.

Clinical and Education Services

The existing position of General Manager (Clinical Services) should have mention of Educational Services in its title to reflect the current responsibilities in this key area. The only changes recommended are:

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- the GM Clinical Service reports through the Deputy Chief Officer rather than a direct report to Chief Officer on clinical and educational issues; and
 - clinical coordinators should cease the rostered duty manager role which currently occurs 1 weekend in 7 and 1 week in 7 of afternoon shifts providing more time for specific work to allocated areas of clinical and educational services.

Clinical and Educational Services will need to focus on:

- implementation of a revised clinical governance framework;
- educational and training strategies and delivery to meet current and future service delivery imperatives-noting the national trend to pre-employment education of paramedics in tertiary institutions with employers focussing on graduate programs, refresher programs /professional development;
- advice and delivery of specialty training (Comcen, driver education, ICP bridging programs, CBR, USAR etc) to meet ACTAS agreed priorities;
- liaison with ACT Health on clinical safety and quality matters to align with national directions endorsed by all Health ministers for safety and quality in provision of health care;
- administrative support to the Clinical Advisory Committee included its added role in QA oversight and review of clinical incidents;
- development of strategies to enhance 'real time' clinical audit and maximise use of VACIS clinical data to guide quality assurance and professional development; and
- maximising the benefits linked to introduction of VACIS to guide reviews of standards of clinical practice at both the individual practitioner and whole of service level.

It would be prudent for the future structure to have a specific functional role /substantive position under the General Manager (Clinical and Educational Services) focused on the safety and quality issues for the clinical services provided by ACTAS with the position focused on ensuring development of systems to monitor and report to management on the clinical aspects of the service with similar positions already existing in ACT Health and in most hospitals and health services.

There will be a significant body of work to manage the introduction of the VACIS system into ACTAS. Once the system is established and fully utilized, the clinical data extracted from VACIS should drive education and training, refresher training, service delivery planning and effective monitoring of clinical practice.

As indicated elsewhere in this report I favor moving from a predominantly "paper based" clinical audit system to have experienced clinicians involved in "real time" clinical audit by going "on the road" observing practice in the field. Existing positions could be restructured over a period of time to enable this to occur and it is one of the only clear rationales for ICP level middle managers to be retained working on rosters once the Shift Supervisor roles are filled to carry the burden of day to day operational management.

Operational Support

The current position of General Manager (Capability) has changed in title to General Manager (Operational Support) but either description is appropriate. The person leading this area need not have an ambulance clinical qualification but rather should be selected on the basis of the different skills required to manage the tasks within this section of ACTAS which may include:

- rostering support to emergency operations, non emergency patient transport and Comcen with the current position entitled Workforce Planning more appropriately retitled Rostering Officer;
- fleet management and vehicle replacement schedule;
- logistical support to big events and multi-casualty incidents;
- equipment and medical supplies;
- occupational health and safety;
- maintenance of register of grievances & complaints with referral to appropriate areas including monitoring and reporting on timelines for resolution of issues; and
- liaison with operational areas and the Department of Justice and Community Safety (JACS) on workforce planning issues.

Strategic Business Support

I recommend that an additional executive support position of Manager of Strategic Business Development be created to provide enhanced administrative, business and strategic support to the Chief Officer and the management team. This position will need to support the management team by developing business planning templates which focus on outcome targets and deliverables and timelines to progress management activities across the whole organisation.

The key roles of the Manager Strategic Business Development may encompass:

- to direct and manage the review and development of policies and systems which enable effective delivery of ambulance services;
- provide high level advice to the Chief Officer and the other members of the management team in relation to strategic business management, performance evaluation and quality improvement (from a non-clinical viewpoint);
- oversee the management of strategic projects and programs, including business relationships within ESA, JACS and with government including provision of advice when requested on issues such as:
 - the future funding model;
 - full cost attribution costing of services to underpin compensable fee reviews; and
 - negotiations on fee levels for eligible DVA clients;
- development of a strategic and business framework for ACTAS and manage the business and performance planning functions, including:
 - the development of business planning templates for all areas and coordination of business planning and performance management; and

- ongoing involvement in reviews of business plans for each area, including benchmarks and performance measures;
- involvement in capital project planning in conjunction with other GMs within parameters and priorities set within ESA and JACS;
- budget monitoring and higher level assistance to GM Operational Support on major fleet and equipment replacement programs;
- undertake high level research and guide the management of complex strategic projects which support ACTAS in progressing service initiatives;
- assist the Chief Officer and the Executive team in the preparation of higher level correspondence and documentation including position papers, briefing notes, drafting of Cabinet papers relevant to strategic ambulance issues;
- representation of ACTAS at meetings with internal and external stakeholders;
- preparation & analysis of statistical data on ACTAS activity to guide operational planning, strategic decisions and to meet national reporting requirements for CAA and Productivity Commission (Report on Government Service provision); and
- administrative duties linked to the business entity managing the aeromedical service contract.

Policies and Procedures

The ACT Auditor-General commented on a number of areas where policies were either delayed in development (such as the TNR policy); are under development (such as the new Clinical Governance policy) or do not exist.

Clearly this is an area which deserves considerable management focus once the new structure is implemented and positions are filled on a substantive basis.

The management team should identify gaps in current policies and procedures and prioritise topics where they are in need of urgent attention for policy development. Wherever possible, ACTAS should take advantage of their relationships with the larger Australian ambulance services in obtaining access to existing policy development work to assist in managing the process of reviewing policy and procedure development gaps.

Workforce Issues

ACTAS has a small section dealing with workforce planning but its prime focus appears to be on rostering of shift work staff.

I am aware that there is another body of work underway reviewing recruitment and selection methodologies so my comments to this area are limited to some obvious strategic issues.

Whilst my review of ACTAS did not include an analysis of ACTAS's workforce in terms of age profile, I suggest that it will need to develop strategies to cope with its "baby boomers" leaving the workforce in

greater numbers into the future, slowed to some extent by the professional rates wage case (which is likely to aid retention of some employees for longer periods because of superannuation benefits).

The relevant workforce parameters include:

- age profile;
- gender profile;
- mix of full time, part time and casual workforce;
- historical patterns of staff turnover;
- patterns of changes in working hours; and
- recruitment and retention history at entry level and for qualified staff.

I have reviewed the operational workforce turnover figures across Australian ambulance services and this indicates that ACTAS has a challenge with turnover of qualified operational staff.

For each of the last two years (the only two years when comparable data is available across Australian ambulance services), ACTAS has a high turnover rate for operational staff. This may suggest that some staff trained in ACT are poached by other ambulance services after ACTAS has invested in their training.

The Tasmanian Ambulance Service once had an Award condition requiring all staff to progress to ICP level (plus rescue skills) within a short period from employment. This resulted in many interstate paramedics relocating to Tasmania with the guarantee of rapid progression to ICP level through additional education and training whereas if they stayed in their own jurisdiction they were unlikely to gain entry to an ICP course for many years.

This not only led to higher salaries and professional esteem once they achieved ICP level but it also created a staff turnover problem for Tasmania with interstate paramedics choosing to return to their state of origin shortly after completion of ICP education and once they had consolidated some practice at this higher skill level. They were able to return to their State of origin at the higher classification and salary level of ICP without having to compete on merit for few ICP entry positions in their own State had they chosen to stay.

If this is the case in ACTAS it would mean that ACTAS may be losing another considerable return on its education and training investment effectively training ICPs for other services. This is a further reason to review the single tier service delivery model and rapid progression to ICP level which is built into the ACTAS service delivery and education and training strategies.

While a review and a change in policy may remove an attractive point of difference for recruitment of graduates, the ACT will still provide greater opportunities to progress to ICP level than all other services even after introduction of a paramedic level and it will reduce the trend of training ICPs who leave after a short period to join another service.

While work value outcome may encourage some ICPs to remain in the workforce (due to salary and superannuation benefits) ACTAS needs to undertake detailed workforce planning consistent with the general ACTPS approach.

Education and Training

ACTAS (through ESA which is a Registered Training Authority) provides a range of education and training services in the pre-hospital care and emergency management fields. Its senior clinical staff, supported by practical on-road training mentors are involved in a wide range of training programs including (but not limited to):

- vocational training of salaried students right through to ICP level;
- bridging graduate programs to enhance the practical training of university trained paramedics to enable them to be able to practice independently;
- training of Comcen officers in ambulance call taking and dispatch and pre-arrival clinical advice;
- training of staff involved in non-emergency patient transport;
- refresher training for all staff;
- training programs for new equipment and procedures as they are introduced into service;
- a range of specialty training programs in the emergency management fields such as Chemical, Biological and Radiological (CBR) response, urban search and rescue (USAR) which are linked to improving counter terrorism public safety;
- aero-medical training; and
- driver education recognising the skills needed to drive safely on emergency classification and for safe patient transport.

In my review I have not focused attention on education and training issues to any extent.

From my observations and experience in the ambulance industry (having employed several former ACT personnel) the ACT's ICP's are well regarded for their knowledge and skills.

However there are some very notable difference in ACTAS education and training strategies compared to all other ambulance services, and these differences are of some strategic importance warranting review into the future.

Firstly the service delivery model in the ACT does not currently provide for a paramedic level which is the base level for general duties ambulance staff in all other States. As a result all paid students who have entered ACTAS and undergone training are required to rapidly progress right through to ICP level in a period of some three and a half years.

In contrast other ambulance services train and employ people progressing from student to paramedic level after 3 years of education and after they gain both the educational standard and clinical competency they are generally encouraged to practice at that paramedic level for a period of between one and three years to consolidate their practical experience before competing on merit for a place in an ICP Program.

ACTAS's accelerated program to ICP level does not provide the same level of practical experiential consolidation of clinical practice after initial training used in all other ambulance services and it is inconsistent with practice in other health disciplines such as nursing. It is akin to a nurse progressing

straight through educationally to a specialty field such as nursing in an intensive care unit, neonatal unit, or emergency department in a clinical nurse specialist role rather than first consolidating practice at registered nurse level.

In some cases paramedics who may meet paramedic level but fail at first attempt at ICP level may later reach this ICP standard when they have had the benefit of consolidating their application of knowledge at a less demanding practice level and gaining confidence to meet the higher competency standards at ICP level.

In these cases ACTAS has achieved minimal return on a substantial educational investment and has lost staff that would have met base level standards in any other Australian city or for that matter met the standard in most developed countries including the UK, Canada and New Zealand amongst Commonwealth countries.


I firmly believe this needs to be reviewed on a cost benefit basis due to the considerable education and training investment. Secondly it fails to recognise that a paramedic level employee is of significant proven value in the pre-hospital care field which is why the paramedic level is commonplace in every ambulance service in Australia and in most developed countries. I would go further to emphasise that most overseas ambulance services employ people at much lower levels of education and training than have been discharged by ACTAS, with such personnel sometimes called emergency medical technicians or similar terms.

There are also a set of strategic issues linked to changes in ambulance education which are akin to the transition of nursing education in Australia in the mid 1980s from hospital based training to tertiary training. The education of paramedics in Australia is in transition to full time tertiary studies leading to Advanced Diplomas, Associate Degrees or Degrees in paramedical sciences with a number of universities having been operating tertiary level paramedic studies for a number of years.

ACTAS has provided practical experience for full time university paramedical science students during their tertiary education for some time and also employed graduates from university programs. Whereas other Australian ambulance services commonly provide graduate or bridging programs for university graduates to increase their practical clinical skills to a level where they can practice independently at paramedic level in periods ranging from 12 to 18 months, ACTAS progresses the same graduates through to ICP level in the similar periods.

This is a point of difference which can aid recruitment of university graduates who may have to wait periods of 3 years or more to get a chance to enter an ICP post basic training program in other ambulance services. However it raises questions about consolidation of clinical practice and I note that this approach is generally inconsistent with the approach to medical, nursing and allied health fields.

Younger university paramedic graduates generally have less life experience than the full time vocational student ambulance officers generally employed by most ambulance services. Notably there has always been a high level of competition to gain entry to ambulance services with many opting to change career into the ambulance field after already completing tertiary studies in other fields, including health



disciplines. Against this background I believe there is a further need to alter ACTAS's approach by extending the period in which young university graduates progress to ICP level, allowing them to practice at paramedic level for a period before adding further training which accompanies transition to ICP level with a wider range of drugs and invasive procedures.

I am firmly of the view that ACTAS should add the paramedic level to its service delivery model.

Accordingly, I recommend that ACTAS's education and training strategies be redesigned to:

- provide for a step point at paramedic level without any compulsion for an employee to meet ICP level;
 - alter their graduate programs to enable new graduates to consolidate their clinical practice at paramedic level before making application to progress to ICP level;
 - enable appropriate middle managers to maintain their clinical skills at paramedic level, rather than ICP level given that their management duties do not always necessitate maintenance of ICP skills, but rather priority be given to management skills and training more directly relevant to their role; and
 - provide an added focus on provision of frontline supervisory training.
-



LEGISLATIVE ASSEMBLY
FOR THE AUSTRALIAN CAPITAL TERRITORY

SELECT COMMITTEE ON ESTIMATES 2013-2014

JEREMY HANSON CSC MLA (CHAIR), CHRIS BOURKE MLA (DEPUTY CHAIR), MICK GENTLEMAN MLA, BRENDAN SMYTH MLA

**ANSWER TO QUESTION TAKEN ON NOTICE
DURING PUBLIC HEARINGS**



Asked by Brendan Smyth MLA on Wednesday 19 June 2013: The Minister for Police and Emergency Services took on notice the following question(s):

Ref: Hansard Transcript 19 June 2013, PAGE 432

In relation to: Internal reviews conducted by ESA

Mr Smyth: Have there been any **internal** reviews conducted by either ESA as a headquarters or the four services as to their requirement and capability, say, in the last five or six years? If you find such reviews—and I am aware of a couple of documents—could you please provide the committee with copies of those reviews?

Simon Corbell MLA: The answer to the Member's question is as follows:–

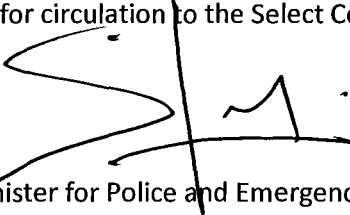
The internal reviews that have been conducted in the ESA in the last six years include the following:

- Strategic Bushfire Management Plan version 2 (2009)
- Government Agreed Recommendations from the McLeod Report and Doogan Coronial Inquiries into the 2003 Canberra bushfires – Implementation Report (2009)
- Review of the ACT Ambulance Service, Positioning the Service to meet future challenges – Lennox Review (2010)
- ESA Expenditure Review (2011)
- ESA Financial Review (2011)
- Fleet and Procurement – Logistics Services Review – Horder Review (2011-12)
- Sustainable resource modelling work – Mair Review (2012)
- On Call/Close Call ESA Duty Officer Arrangements (2012)

The Strategic Bushfire Management Plan version 2, the Government Agreed Recommendations from the McLeod Report and Doogan Coronial Inquiries into the 2003 Canberra bushfires – Implementation Report and the Review of the ACT Ambulance Service (Lennox Review) have been publicly released and copies are attached. The On Call/Close Call ESA Duty Officer Arrangement has been provided to relevant union representatives. The other reviews are considered financial, budget, or commercial in confidence or are of an internal operational nature and not considered appropriate for public release.

Approved for circulation to the Select Committee on Estimates 2013-2014

Signature:

A handwritten signature in black ink, appearing to be 'S. Corbell', written over a vertical line that separates the signature area from the date area.

Date:

8.7.13

By the Minister for Police and Emergency Services, Mr Simon Corbell MLA



LEGISLATIVE ASSEMBLY
FOR THE AUSTRALIAN CAPITAL TERRITORY

SELECT COMMITTEE ON ESTIMATES 2013-2014

JEREMY HANSON CSC MLA (CHAIR), CHRIS BOURKE MLA (DEPUTY CHAIR), MICK GENTLEMAN MLA, BRENDAN SMYTH MLA

**ANSWER TO QUESTION TAKEN ON NOTICE
DURING PUBLIC HEARINGS**



Asked by Brendan Smyth MLA on 19 June 2013: The Minister for Police and Emergency Services took on notice the following question(s):

Ref: Hansard Transcript: 19 June 2013, Page 433

In relation to: Number of worker's compensation claims for ESA

Mr Smyth: How many claims have been lodged in the current year? All right, could we have the number of claims in, say, the last three years?

Simon Corbell MLA: The answer to the Member's question is as follows:-

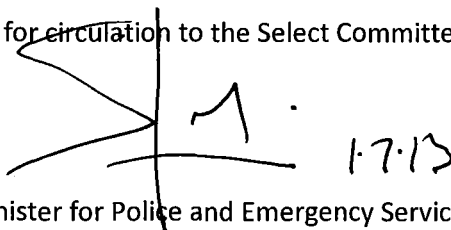
The number of accepted compensation claims with a date of injury (DOI) within the last 3 financial years is:

2010-11	57
2011-12	44
2012-13	46 YTD (with an additional four (4) yet to have liability determined by Comcare)

Date of injury has been used because this is the standard reporting methodology for compensation as it reflects the work, health and safety performance of the current time. It should be noted that claims accepted in this financial year may have a date of injury in any previous year, for example a claim received in 2012-13 may have a date of injury in 2010-11.

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Date:

By the Minister for Police and Emergency Services, Simon Corbell MLA



LEGISLATIVE ASSEMBLY
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**ANSWER TO QUESTION TAKEN ON NOTICE
DURING PUBLIC HEARINGS**



Asked by Brendan Smyth MLA on Wednesday 19 June 2013: The Minister for Police and Emergency Services took on notice the following question(s):

Ref: Hansard Transcript 19 June 2013, PAGE 433

In relation to: Debriefs after 2011 Christchurch earthquake

Mr Smyth: When officers return from a critical incident—for instance, I understand we sent USAR teams to Christchurch—are they debriefed, and how are the debriefings acted upon? So debriefs were conducted after Christchurch?

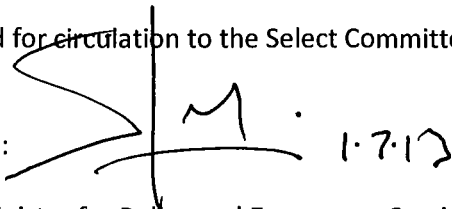
Simon Corbell MLA: The answer to the Member's question is as follows:—

Operational debriefs (after action reviews) were conducted for ACT Fire & Rescue (ACTF&R) USAR teams returning from the Christchurch and Japan earthquakes in early 2011. Critical Incident Stress Management (CISM) debriefs were conducted by Fire and Rescue NSW and ACTF&R when the USAR teams returned from Christchurch and Japan.

The second deployment to Christchurch was made up of firefighters from multiple fire agencies in Australia. As deployments to Japan occurred immediately after the 2nd Christchurch deployment, the USAR teams were subsequently debriefed upon their return. 12 month follow up welfare checks were also conducted with all firefighters deployed overseas during 2011.

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Date:

By the Minister for Police and Emergency Services, Mr Simon Corbell MLA



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**ANSWER TO QUESTION TAKEN ON NOTICE
DURING PUBLIC HEARINGS**



Asked by Dr Chris Bourke MLA on Wednesday 19 June 2013: The Minister for Police and Emergency Services took on notice the following question(s):

Ref: Hansard Transcript 19 June 2013, PAGE 437

In relation to: White powder incidents in the ACT

Dr Bourke: What is the quantum of white powder incidents, say, on an annual basis?

Simon Corbell MLA: The answer to the Member's question is as follows:-

The number of white powder incidents attended to by ACT Fire & Rescue (ACTF&R) varies from year to year. In the last three years, ACTF&R, on average, responded to six (6) or more confirmed white powder incidents per year. The vast majority of confirmed incidents involve Commonwealth buildings or Commonwealth related building such as foreign missions and embassies.

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1.7.13

By the Minister for Police and Emergency Services, Mr Simon Corbell MLA



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**ANSWER TO QUESTION TAKEN ON NOTICE
DURING PUBLIC HEARINGS**



Asked by Dr Chris Bourke MLA on Wednesday 19 June 2013: The Minister for Police and Emergency Services took on notice the following question(s):

Ref: Hansard Transcript 19 June 2013, PAGE 438-439

In relation to: Template design for stations

Mr Corbell: One of the strengths of the station relocation project is that we are using a standard template design for all of our stations. So the up-front investment we have made, for example, as part of the work at Charnwood has involved the development of a template design for stations that will then be rolled out—obviously with some adjustment for individual sites—for each of our sites. We are using the same basic framework and station layout and we just replicate that at multiple sites.

Dr Bourke: Are you able to quantify those savings?

Simon Corbell MLA: The answer to the Member's question is as follows:—

The standardisation of documents supporting templates for future ambulance and fire stations provide efficiencies. These efficiencies will vary between stand alone stations and colocated stations but it is estimated to save the Territory between \$350,000 and \$500,000 in design costs and approximately three months in project program for each new or relocated station.

In addition, this approach to ambulance and fire station design in the Territory has helped streamline operational end-user and union consultative processes, as well as refining the due diligence and site assessment processes for each phase of the Strategy.

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8.7.13

By the Minister for Police and Emergency Services, Mr Simon Corbell MLA



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**ANSWER TO QUESTION TAKEN ON NOTICE
DURING PUBLIC HEARINGS**



Asked by Brendan Smyth MLA on Wednesday 19 June 2013: The Minister for Police and Emergency Services took on notice the following question(s):

Ref: Hansard Transcript 19 June 2013, PAGE 440-441

In relation to: Rollover of ESA ICT projects

Mr Smyth: On a different issue, on page 225 of budget paper 4, there is a string of rollovers from 2011-12, in particular, the Centracom replacement, the communication upgrade project, the mobile data solution project and the information and communications technology infrastructure project. Could you confirm that all those projects have now been completed and what was the scope of the projects? If we run through them, the Centracom replacement, what is involved and when will it be finished?

Simon Corbell MLA: The answer to the Member's question is as follows:-

1. Centracom replacement

- a. The scope of this project is to replace Centracom units used by ESA in its Emergency Triple Zero (000) Communications Centre (Comcen). The units enable voice communications between emergency service dispatchers and emergency service vehicles and individuals in the field. The units were approaching the end of their service life.
- b. The project involves the procurement of replacement units, commissioning them into service, and disposal of the old units. As part of commissioning into service, the units must be integrated into the Trunk Radio Network (TRN). The NSW Telecommunications Authority manages the TRN core located in Sydney.
- c. The NSW Telecommunications Authority is required to upgrade the core operating system to enable ESA to commission the new units. NSW delayed the upgrade for approximately 18 months. The upgrade is now proceeding. ESA expects to complete the project in December 2013.

2. Communications upgrade project

- a. The scope of this project is to upgrade the ESA's communications capability. It comprises a number of discrete sub-projects delivered over a number of years.
- b. Rollover for 2012-13 is related to the re-direction of funding to the *ESA Strengthening 000 Backup Capability 2012-13* initiative, acquiring additional licences for the ESA's Computer Aided Despatch (CAD) system, refreshing part of the radio fleet for Community Fire Units (CFUs) and completing an upgrade of the ESA's asset management system.
- c. Acquisition of additional licences for the ESA's CAD system and refreshing part of the radio fleet for CFUs is complete. The *ESA Strengthening 000 Backup Capability 2012-13*

involved obtaining detailed technical design for the additional infrastructure required. The initiative is proceeding and is expected to be completed in December 2013. The upgrade to ESA's asset management system is expected to be completed in July 2013.

3. Mobile data solution project

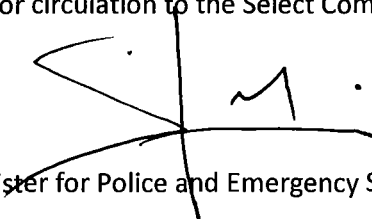
- a. The scope of this project is to rollout mobile data capability to ACT Rural Fire Service and ACT State Emergency Service and supplement the replacement of the mobile data system in ACT Fire and Rescue and ACT Ambulance Service (see 4b below).
- b. The project involves installing mobile data terminals into the vehicle fleets for each Service and developing a user interface.
- c. The rollout is physically complete. A post implementation review will be conducted in July 2013 to complete the project.

4. ESA Information and Communications Technology infrastructure project

- a. The scope of this project is to upgrade a number of the ESA's business systems and associated ICT infrastructure. It comprises of a number of discrete sub-projects which have been delivered over a number of years.
- b. Rollover for 2012-13 is related to re-direction of funding to the *ESA Strengthening 000 Backup Capability 2012-13* initiative, and to make the final milestone payment on mobile data systems project for the ACT Ambulance Service and ACT Fire & Rescue.
- c. The final milestone payment on mobile data systems is complete. Refer to 2(c) above for status of the *ESA Strengthening 000 Backup Capability 2012-13* initiative.

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Date:

1.7.13

By the Minister for Police and Emergency Services, Mr Simon Corbell MLA



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**ANSWER TO QUESTION TAKEN ON NOTICE
DURING PUBLIC HEARINGS**



Asked by Mr Brendan Smyth MLA on 19 June 2013: The Minister for Workplace Safety and Industrial Relations took on notice the following question(s):

[Ref: Hansard Transcript 19 June 2013 page 461]

In relation to: WorkSafe ACT

Mr Smyth: Given your guys are not engineers in that regard, did you then refer it on to the dam regulator in ESDD?

Simon Corbell MLA: The answer to the Member's question is as follows:—

The WorkSafety Commissioner has advised that WorkSafe ACT Inspectors undertook several on-site inspections including joint visits and discussions with Environmental and Sustainable Development Directorate Utilities Technical Regulation Water Inspectors.

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Signature:

Date:

By the Minister for Workplace Safety and Industrial Relations



LEGISLATIVE ASSEMBLY
FOR THE AUSTRALIAN CAPITAL TERRITORY

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**ANSWER TO QUESTION TAKEN ON NOTICE
DURING PUBLIC HEARINGS**



Asked by Mr Brendan Smyth MLA on 19 June 2013: The Minister for Workplace Safety and Industrial Relations took on notice the following question(s):

[Ref: Hansard Transcript 19 June 2013 page 461]

In relation to: WorkSafe ACT

Mr Smyth: So none of your people went to the dam?

Mr McCabe: Look, I could not say that definitively. I would have to take that on notice, but that is my belief, that they did not.

Mr Smyth: Okay. And you are not sure whether or not they were in contact with the dam regulator?

Mr McCabe: I would have to take that on notice as well.

Simon Corbell MLA: The answer to the Member's question is as follows:—

The WorkSafety Commissioner has advised that WorkSafe ACT Inspectors undertook several on-site inspections, including joint visits and discussions with Environmental and Sustainable Development Directorate Utilities Technical Regulation Water Inspectors.

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Signature:

Date:

8.7.13

By the Minister for Workplace Safety and Industrial Relations, Mr Simon Corbell MLA



LEGISLATIVE ASSEMBLY

SELECT COMMITTEE ON ESTIMATES 2013-2014

JEREMY HANSON CSC MLA (CHAIR), CHRIS BOURKE MLA (DEPUTY CHAIR), MICK GENTLEMAN MLA, BRENDAN SMYTH MLA

ANSWER TO QUESTION TAKEN ON NOTICE DURING PUBLIC HEARINGS



Asked by THE CHAIR on 21 June 2013: MINISTER BURCH took multiple questions on notice regarding FTEs and Saving Initiatives:

Ref: Hansard Transcript 21 June 2013 PAGE #663

In relation to:

- a) FTEs - can the Minister provide the Committee with a reconciliation of what areas are losing staff and what areas are gaining them across the Directorate?
- b) Savings targets - can the Minister provide as much information as possible?
- c) Staffing - can the Minister provide a reconciliation of the increase in FTEs from 932 to 962 and then the decrease from 962 to 924?

Minister Burch: The answer to the Member's question is as follows:-

- a) As identified in the budget papers BP4 p 322 the net decrease from the 2012-13 Budget 932 to the 2013-14 Budget 924 is 8.

The Directorate has been working to reprofile and realign services where possible to be more efficient and effective aiming to deliver the savings targets as required. There are already some changes to a number of youth services announced, resulting in a reduction of 11 FTE. Areas affected by these reductions have been consulted and include Youth Connections.

The largest increase in FTEs in 2013-14 relates to Commonwealth funded positions to prepare the ACT for the launch of DisabilityCare. There are also some increases in FTEs for new initiatives across several areas in the Directorate.

- b) Information on savings targets for the Directorate is outlined on page 336 of Budget Paper No.4, under the headings of "General Savings", "Service Reprofileing" and "Ceasing Initiative". Over the coming months, the Directorate will be undertaking its business planning process which will include the delivery of the savings.
- c) The additional FTEs in the Estimated Outcome (as at April 2013) includes staffing for the DisabilityCare Taskforce, staff associated with enquires into Care and Protection Services and strategic projects (6) and additional staffing associated with the provision of disability services and youth justice (21).

The net reduction in the budgeted FTEs from 932 in 2012–13 to 924 in 2013–14 is due to:

- transfer to Education and Training (Administrative Arrangements of 10 November 2012 (-17);
- DisabilityCare Taskforce (Commonwealth funded) (+20);
- 2013–14 new initiatives (+6);
- Identified savings (-11); and
- Notional allocation from savings (-6).

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Signature:



Date: 25.6.13.

By the Minister for Disability, Children and Young People, Ms Joy Burch MLA



LEGISLATIVE ASSEMBLY

SELECT COMMITTEE ON ESTIMATES 2013-2014

JEREMY HANSON CSC MLA (CHAIR), CHRIS BOURKE MLA (DEPUTY CHAIR), MICK GENTLEMAN MLA, BRENDAN SMYTH MLA

ANSWER TO QUESTION TAKEN ON NOTICE DURING PUBLIC HEARINGS



Asked by MR SMYTH on 21 June 2013: MINISTER BURCH took on notice the following question(s): ACT LA

Ref: Hansard Transcript 21 June 2013 PAGE #669

In relation to: the Enterprise Bargaining Agreement (EBA) Negotiations

If there is a 2 per cent EBA offer, and expenses are only going up 1 per cent, where will the other 1 per cent come from? Will you end or cease programs, or find other savings?

Minister Burch: The answer to the Member's question is as follows:—

Any adjustments for the impact of wage negotiations will be addressed once the agreement is finalised.

Approved for circulation to the Select Committee on Estimates 2013-2014

Signature:

Date:

1/7/13

By the Minister for Disability, Children and Young People, Ms Joy Burch MLA



LEGISLATIVE ASSEMBLY

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ANSWER TO QUESTION TAKEN ON NOTICE DURING PUBLIC HEARINGS



Asked by MR SMYTH on 21 June 2013: MINISTER BURCH took on notice the following question(s).

Ref: Hansard Transcript 21 June 2013 PAGE #670

In relation to: Employee Expenses

Can you explain how your budget dips from employee expenses of \$79 million to \$74 million over two years without staff cuts?

Minister Burch: The answer to the Member's question is as follows:—

The decrease in employee expenses from \$79 million to \$74 million in the outyears 2014-15 and 2015-16 accounts for the staffing impact of the limited initiatives such as DisabilityCare Taskforce and the notional allocation of Reprofiling efforts. The specific measures will be developed and implemented over the next 12 to 18 months. These figures do not take into account the two budget cycles associated with these outyears.

Approved for circulation to the Select Committee on Estimates 2013-2014

Signature:

Date:

By the Minister for Disability, Children and Young People, Ms Joy Burch MLA



LEGISLATIVE ASSEMBLY

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ANSWER TO QUESTION TAKEN ON NOTICE DURING PUBLIC HEARINGS



Asked by MR SMYTH on 21 June 2013: MINISTER BURCH took on notice the following question(s):

Ref: Hansard Transcript 21 June 2013 PAGE #670

In relation to: Superannuation

Why are your superannuation expenses going up by 3 per cent?

Minister Burch: The answer to the Member's question is as follows:-

Superannuation increases or decreases are a calculation undertaken each year and involve variables such as the number of staff in each superannuation scheme, the underlying rates in the next year and associated actuarial calculations and assumptions. The 3% increase is the net result taking into account these variables.

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ANSWER TO QUESTION TAKEN ON NOTICE DURING PUBLIC HEARINGS



Asked by MR SMYTH on 21 June 2013: MINISTER BURCH took on notice the following question:

Ref: Hansard Transcript 21 June 2013 Page #671

In relation to: Statement of changes in Equity

On page 342, on your statement of changes in equity, why is there a negative capital distribution to Government?

Minister Burch: The answer to the Member's question is as follows:—

The negative capital distribution to Government is a technical accounting treatment, which reflects an adjustment to working capital. This negative adjustment occurred when Agency bank accounts were transferred to ACT Treasury in 2007.

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ANSWER TO QUESTION TAKEN ON NOTICE DURING PUBLIC HEARINGS



Asked by MR WALL on 21 June 2013: MINISTER BURCH took on notice the following question(s)

Ref: Hansard Transcript 21 June 2013 PAGE #696

In relation to: Stress Leave and Workers Compensation – Bimberi

- a) Can the Minister advise the number of staff that would be on stress leave, return to work or workers compensation cases that are on the Bimberi payroll?

Minister Burch: The answer to the Member's question is as follows:–

The number of staff on the Bimberi payroll currently receiving workers compensation as of 21 June 2013 is 21 with an open claim. Four have separated from the Directorate but continue to receive ongoing payments. Of the 21 workers there are a variety of reasons for their worker's compensation claims, which include psychological conditions, long term physical issues, or a combination of both. Several of these claims date back to Quamby (i.e. prior to 2008), with the oldest claim currently open having an injury date in 1987. The most recent claim is in 2013.

Approved for circulation to the Select Committee on Estimates 2013-2014

Signature:

J. Burch - 28/6/13

Date:

By the Minister for Disability, Children and Young People, Ms Joy Burch MLA



LEGISLATIVE ASSEMBLY

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ANSWER TO QUESTION TAKEN ON NOTICE DURING PUBLIC HEARINGS



Asked by MR SMYTH on 21 June 2013: MINISTER BURCH took on notice the following question:

Ref: Hansard Transcript 21 June 2013 PAGE #701

In relation to: Kinship carers and foster parents - accountability indicator k (average cost per out-of-home care day).

Can the Minister provide a break down against the index over the last couple of years?

Minister Burch: The answer to the Member's question is as follows:—

The cost per out of home care day – accountability indicator k is calculated by dividing the total budget for out of home care by the number of out of home care days. Below is this calculation since 2011-12:

	Cost per day	No. days	Out of Home Care Budget
2011-12	\$135	210,000	\$28.3m
2012-13	\$154	220,500	\$33.9m
2013-14	\$155	225,000	\$34.9m

Approved for circulation to the Select Committee on Estimates 2013-2014

Signature:

J. Burch 28/6/13

Date:

By the Minister for Disability, Children and Young People, Ms Joy Burch MLA



LEGISLATIVE ASSEMBLY

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ANSWER TO QUESTION TAKEN ON NOTICE DURING PUBLIC HEARINGS



Asked by MR SMYTH on 21 June 2013: MINISTER BURCH took on notice the following question(s):

Ref: Hansard Transcript 21 June 2013 PAGE #704

In relation to: Adoptions

- a) How many applications for adoption did the Directorate receive for past three years?
- b) What percentage of applications actually end up in an adoption?

Minister Burch: The answer to the Member's question is as follows:—

- a) In the 2010 to 2011 financial year, 17 formal applications were submitted.
In the 2011 to 2012 financial year, 10 formal applications were submitted.
In the 2012 to 2013 financial year, 8 formal applications were submitted.
- b) Of the applications from 2010 to June 2013 20% (7) have resulted in an adoption being finalised. The other adoptions finalised during this period were the subject of applications prior to 2010. Some of the applications during the period of 2010 to 2013 may be finalised in future years.

Approved for circulation to the Select Committee on Estimates 2013-2014

Signature:

Date:

By the Minister for Disability, Children and Young People, Ms Joy Burch MLA



LEGISLATIVE ASSEMBLY

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ANSWER TO QUESTION TAKEN ON NOTICE DURING PUBLIC HEARINGS



Asked by MR SMYTH on 25 June 2013: MS HOWSON took on notice the following question(s):

Ref: Hansard Transcript 25 June 2013 PAGE #854

In relation to: Innovation Grants

How many other applicants were there for the innovation grant? Can the Minister please provide a list for the Committee.

MINISTER BURCH: The answer to the Member's question is as follows:-

There were 48 applications received for the 2012-13 Innovations Grant, with one non-conforming.

For privacy reasons it would be inappropriate to provide a list of unsuccessful applicants.

Approved for circulation to the Select Committee on Estimates 2013-2014

Signature:

Date: 4 July 2013

by the Minister for Disability, Children and Young People, Ms Joy Burch MLA