



Changing Approaches to Fire Management: Land and Fire Management in a Changing World

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## ANZ Forest Fire Management Group (FFMG)



- The FFMG consists of Australian and New Zealand public land managers and the NZ Rural Fire Authority.
- Purpose of FFMG are:
  - Facilitate interstate and international liaison and consultation between land & fire agencies.
  - assist in the development of effective fire management philosophy.
  - Develop concepts in land and fire management.



#### FFMG

- Information exchanges between North America and ANZ began in 1951;
- Formal study tours began in 1968
  - Every 2 years delegations from ANZ and Nth America exchange information.
- Development of mutual aid arrangements
  - North American firefighters have supported Australian (Victoria) in 2002/03, 2005, 2006/07, 2009 and 2010.
  - Australian and New Zealand firefighters have supported North American agencies in 2000, 2002, 2003, 2006, 2008 and 2009.



Significant events create benchmarks: In Australia (Victoria) these benchmarks include:

- Black Friday 13 January 1939
- Ash Wednesday 16 February 1983
- Black Saturday 9 February 2009.

All have had significant reform following



- Worldwide the last 100 years has seen:
- Suppression Philosophy
  - Improved suppression technology and systems;
  - Rapid response, smaller fires.
- Effective community engagement campaigns.
  - Community attitude to fire Smokey message all fire is bad!
- Outcomes:
  - Less fire in the landscape;
  - Decline in forest ecosystem health;
  - Increased wildfire potential and severity.



In Australia fire regimes have changed:

- Frequent small and low intensity fires replaced by less frequent fires.
- Larger more intense bushfires increased threat to communities;
- Reduction in the "patchiness" or mosaics across the landscape
- Ecological impacts particularly a loss of biodiversity.



Protracted drought commenced in late 1990's;

- Well established by early 2000's;
- We saw a dramatic worldwide increase in large ("Mega") fires:
  - USA, Canada, Europe, Asia and Australia.
- We are seeing the impact 100 years of full suppression policy.



In Victoria the long dry spell culminated in disastrous bushfires in January and February 2009 – particularly February 7.

- 173 lives lost, many more injured;
- 2,000+ homes lost including entire towns that had survived major bushfires through history;
- Recovery costs in excess of AUD\$1billion and continues today;
- A Royal Commission that took 18 months and made 67 recommendations of which all were accepted by the Victorian Government.
  - Black Saturday has had national/international significance.







Key findings of the Victorian Bushfire Royal Commission:

- Community Warnings:
- National Fire Danger Rating system:
- Interoperability of systems COP:
- Increased use of prescribed fire managing the land with fire:
- Leadership introduction of a Fire Services
  Commissioner.



Black Saturday and the VBRC opened a window of opportunity for land and fire agencies.

Increased funding and people.

However change being made in the context of:

- Tough economic environment
  - Public sector agencies downsizing.
- Aging workforce:
  - Limited succession planning.
- Increased and varied demands on parks & forests water, timber, recreation opportunities.
- Climate change impacts:
- Impacts of carbon policies.





- Current approaches focus on response and recovery;
  - Essential for dealing with the immediate challenges, but:
- Changes in settlement, demographics and climate mean that our current approach is both:
  - Ineffective; and
  - Unsustainable.
- We are not addressing the issues that have developed over the last 100 years.



Increasing debate:

How to reduce the bushfire risk to communities and maintain ecosystem services able to support:

- healthy biodiversity;
- Recreation opportunity; and
- production our forests and rangelands provide.

This debate is informed by recommendations of the 2009 Victorian Bushfires Royal Commission



#### Canada has Wildland Fire Strategy.

The FFMG has recently finalised a National Bushfire Management Policy Statement for Forests and Rangelands for ANZ.

#### In Australia:

- Developed by the Australian Government and State and Territory Governments.
  - Land management and rural fire agencies.
  - Australian Federal and State Governments and Australian Local Government Association.



#### Policy Statement Purpose:

- "..that all Australians, now and in the future, should benefit from the roles of these lands in:
- the provision of ecosystem services such as:
  - Conserving biodiversity;
  - Heritage;
  - Carbon;
  - Producing water and timber; and
  - Hosting recreation and tourism opportunities."



The focus is on the management of fire in forests and rangelands on public land.

- Establishes 4 Strategic Objectives:
  - Effectively Managing the land with Fire;
  - Involved and capable communities;
  - Strong, land, fire and emergency partnerships and capability; and
  - Actively and adaptively managing risk.
- We lack an implementation plan.



2009 Victorian Bushfires Royal Commission.

#### Recommendation 56

The State fund and commit to implementing a longterm program of prescribed burning based on an annual rolling target of 5 per cent minimum of public land in Victoria.

390,000 hectares per annum

3 times the program prior to 2009



Prescribed burning recommendation has implications.

#### In Victoria:

- Reform Program:
  - Re-engineer delivery model:
    - 365 day model;
  - Strategic planning approach;
  - Increase capacity:
    - People, plant, aircraft, equipment;
    - Strategic partnerships
  - Stakeholder engagement:
    - Winegrowers, tourism bodies, etc.





### The future

Greater investment in prevention and preparedness is essential. and

'...appropriate use of planned fire to protect communities and their assets, and to protect and conserve natural and cultural values.'

Managing the Land with Fire.

## The future



We plan to meet our objectives – particularly prescribed fire, but struggle.

We are working in an environment where:

- Communities have not been brought along the journey;
- Land managers are under greater scrutiny in what and how we burn;
- Environmental considerations particularly smoke impacting air quality and agriculture; and
- Current economic environment is changing the way we work.





Urbanisation is encroaching on forested areas:

 Increasingly communities don't understand the concept of "Living with Fire".

Land and fire management agencies need to:

- Educate communities "Living with Fire",
  "FireSmart", "FireWise" etc.
- Engage with communities:
  - "roundtable" discussions at all levels;





#### and

- In Victoria DSE has modelled that:
  - With existing resources mutual aid arrangements may need to be activated 3 in 10 years.

Mutual aid arrangements may be required more frequently:

- Level of downsizing over the next 6 12 months;
- Requirements of an increased use of prescribed fire;
- Impacts of climate change.



### The future

Strong international relationships between land and fire management agencies;

- Underpinned by agreements that facilitate:
  - Mutual aid
  - Information exchange, research partnerships and knowledge;
  - Staff exchanges particularly at the middle management level (developing our future leaders).
  - Collaboration on lessons learned and innovation
  - Joint training and exercises
  - Sharing technologies.

## The future



