

FIRE UPDATE

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RESEARCH AND THE ROYAL COMMISSION

FINAL REPORT MAKES 67 RECOMMENDATIONS

The final report of the 2009 Victorian Bushfires Royal Commission report was released on Saturday 31 July 2010. It makes 67 recommendations based on the extensive evidence heard by the Commission following the Black Saturday bushfires of 7 February 2009, in which 173 people died.

Victorian Premier John Brumby announced the establishment of the Royal Commission two days after Black Saturday, with the Commissioners, the Hon Bernard Teague AO (chair), Ron McLeod AM and Susan Pascoe AM.

During the following 18 months, the Commissioners held 26 consultation sessions in the affected communities and received 1700 written submissions. They conducted 155 days of hearings, including eight days of regional hearings. There were 434 witnesses, including 100 lay members of the public affected by the fires. The Commission produced 53 internal research papers, received more than 17,000 documents, photos, maps and audio visual material as exhibits as well as two interim reports and the four-volume final report.

The report is available from the Commission's website www.royalcommission.vic.gov.au

The 67 recommendations fall under eight substantive and three smaller headings:

VICTORIA'S BUSHFIRE SAFETY POLICY

Seven recommendations including calling on the State of Victoria to revise and improve its bushfire safety policy (while largely retaining the "prepare, stay-and-defend or leave early" policy with the caveat that no property may be defensible on a day like Black Saturday);



▲ The Royal Commission sits in Melbourne. It conducted 155 days of hearings.

enhance the role of public warnings; introduce comprehensive policies on bushfire shelters and evacuation; lead an initiative to have bushfire history taught in school; and for the Commonwealth to develop a national bushfire awareness campaign.

EMERGENCY AND INCIDENT MANAGEMENT

Twelve recommendations including the mandatory readiness of full incident management teams led by Level 3 incident controllers by 10am on all Code Red fire danger days; designate the information unit in an incident management team a separate unit reporting to the incident controller; require the most suitably qualified person to be appointed incident controller regardless of whether the control agency for the fire is the Country Fire Authority or the Department of Sustainability and Environment; and establish before the next fire season a training system for incident controllers based on the current DSE training approach.

FIREGROUND RESPONSE

Seven recommendations including establishing a system to enable the speedy dispatch of fire-bombing aircraft to high-risk fires; the CFA and DSE to standardise their operating and communications systems to achieve greater efficiency and interoperability; the CFA as a priority take steps to overcome black spots in radio coverage; that all relevant fire crews be trained in the need to get incident controller approval for back burns; and that safety officers (at present called safety advisers) be appointed without exception to all Level 3 incident management teams.

ELECTRICITY-CAUSED FIRE

Eight recommendations including requiring the replacement of aging Single Wire Earth Return (SWER) powerlines (common in rural Victoria) as well as 22 kV distribution feeders with aerial bundled cable, underground cable or other technologies to reduce bushfire risk; Energy Safe Victoria to require inspections of SWER and 22 kV lines at least every three



◀ **Consultation:** The Bushfires Royal Commission ran a number of community consultation meetings.

years (rather than the present five); better training for electricity line inspectors; require Energy Safe Victoria to fulfil its mandate to prevent and mitigate electricity-caused bushfires.

DELIBERATELY LIT FIRES

Two recommendations, one for Victoria Police to continue to pursue a coordinated statewide approach to arson prevention including a research program aimed at refining arson prevention and detection strategies; and that the Commonwealth, states and territories continue to pursue the National Action Plan to Reduce Bushfire Arson.

PLANNING AND BUILDING

Nineteen recommendations aimed at better protection for homes in bushfire-prone areas, including better rules covering the removal of vegetation around homes; for the State to develop a voluntary buyback and resettlement scheme for homes in areas of unacceptably high risk; that Standards Australia amend AS 3959-2009 (Construction of Buildings in Bushfire Prone Areas) to ensure it incorporates

better protection against ember attack; removing “deemed to satisfy” provisions for homes being built in BAL-FZ (Flame Zone); and Standards Australia to move expeditiously on a standard for bushfire sprinklers and sprayers.

LAND AND FUEL MANAGEMENT

Seven recommendations including that the State fund and commit to a long-term prescribed burn program with an annual target of five per cent of public land; the DSE to report annually on prescribed burn outcomes and upgrade its data on this work; and for the DSE to amend its Code of Practice for Fire Management on Public Land to provide a clear statement of objectives, an explicit risk analysis model to resolve competing objectives in which human life is the highest priority.

ORGANISATIONAL STRUCTURE

Two recommendations (one with multiple sub-recommendations) including appointing a Fire Commissioner as an independent Statutory Officer who would be the senior operational firefighter in Victoria – the existing CFA, DSE and MFB agencies would be retained; and

replacing the present insurance-based Fire Services Levy with a property-based levy.

RESEARCH AND EVALUATION

One recommendation, that the Commonwealth establish a national centre for bushfire research in collaboration with other Australian jurisdictions to support pure, applied and long-term research in the physical, biological and social sciences relevant to bushfires and to promote continuing research and scholarship in related disciplines.

MONITORING IMPLEMENTATION

One recommendation, that the State appoint an independent monitor, or the Victorian Auditor-General undertake the same task, of assessing progress with implementing the Commission’s recommendations and report to Parliament by 31 July 2010.

REFLECTIONS

One recommendation, that the State consider developing legislation to cover the conduct of inquiries in Victoria, particularly royal commissions (the state has no such legislation).

REPORT CALLS FOR NATIONAL CENTRE FOR BUSHFIRE RESEARCH

Australia needs a permanent, preferably Victoria-based, national centre for bushfire research with reasonable surety of long-term funding, says the final report of the 2009 Victorian Bushfires Royal Commission.

“The Commission considers that a national research centre or institute is required for bushfire research,” the report says in an eight-

page discussion of past, present and future bushfire research.

“It is obvious that governments need to invest more in bushfire research and that there is a need for a ‘far more significant research effort than has been the case to date.’”

Australia was once a leader in fire science research through institutions such as the

CSIRO, the report says. But by the late 1980s, Australia had only a handful of internationally recognised fire researchers and most of them were nearing retirement age. Funding was ad hoc, often only increasing in response to major fire events. Most fire agencies had inadequate funding to employ researchers in-house. This led to relatively uncoordinated, short-term

BUSHFIRE CRC RESEARCH - PAST AND PRESENT

In 2003 the Australian Government showed its support for the fire and land management industry by establishing the first nationally coordinated centre for bushfire research under its Cooperative Research Centres Program.

Much of the original research program provides a solid evidence base for the research priorities outlined above by the Royal Commission. The Bushfire CRC Research Taskforce, in particular, provides a wealth of data on Black Saturday on fire behaviour, why some houses burnt and others did not, and on the actions and decisions taken by residents.

The Taskforce data and other Bushfire CRC research was heavily drawn upon for the Commissioner's deliberations – based on a formal Memorandum of Understanding signed early on between the Royal Commission and the Bushfire CRC.

The Commissioners commended the Bushfire CRC saying they had "...benefited from extensive research conducted by the Bushfire Cooperative Research Centre, the Australasian Fire and Emergency Services Authority, and numerous other research bodies. In a dynamic polity area such as emergency management, it is essential that research is automatically taken into account of in policy development."

The Centre's current research program runs through to 2013 with significant support from the Australian Government providing \$15 million.

The research program is focussing on issues arising from the Black Saturday fires that have been highlighted by the 2009 Victorian Bushfire Royal Commission.



These include:

- Communicating with bushfire-prone communities.
- Understanding the risk of living and working in bushfire areas.
- Managing major incidents.
- Understanding extreme fire behaviour and its impact on the landscape.

Australia's fire services have agreed that, consistent with Recommendation 65 of the Royal Commission, the Bushfire CRC will transition into the long-term Australasian Fire Research Institute. With support from the Australian Government and from partner contributions, the Institute will provide Australia and New Zealand with a much needed sustainable centre for fundamental research, as recommended by the Royal Commission, and for industry-inspired bushfire research.



local research, rather than research with a coordinated, strategic or national focus.

The Bushfire Cooperative Research Centre was initiated in 2003 by the fire and land management agencies in Australia and New Zealand, their research partners and the Commonwealth Government, the report notes.

"Overall, the Bushfire CRC has been a welcome initiative that has made gains in re-establishing a community of researchers and a consolidated research agenda. It does not, however, meet all research needs and it is unlikely to continue in its current form. Commonwealth funding for it is due to expire in 2013.*

"A permanent national centre for bushfire research is needed with reasonable surety of long-term funding."

In developing the model for such a body, the report says, governments should consider incorporating such features as pure and applied research as well as long-term research projects; strong governance arrangements – including research independence; the location of the research centre, preferably in Victoria; a balanced focus that includes physical, biological and social research; links with teaching and promotion of graduate scholarships; cross-institutional and jurisdictional collaboration; and international collaboration and sharing of knowledge.

The Commission heard evidence and received reports from a number of bushfire researchers and research bodies, including the Bushfire CRC. The report says the Commission's work revealed a number of research gaps and priorities.

"Some were raised by expert witnesses; others became apparent when the commission was conducting its analysis. These gaps are a good starting point for considering short- and long-term priorities for bushfire research in Australia."

They include the following areas:

- The effects of prescribed burning and bushfire on biodiversity and on reducing bushfire risk.
- The establishment of databases to map Victoria's flora and fauna, to register Victoria's fire risk and to identify its bushfire-prone areas.

- The extent of deliberately lit bushfires and the causes of fire-setting behaviour.
- The long-term effect of trauma resulting from the experience of bushfire.
- The effects of fire activity and smoke on radio communications
- The extent of road deaths in bushfires, including use of cars as shelters in bushfires.
- House defendability in extreme conditions.
- The circumstances of the thousands who survived the Black Saturday bushfires by leaving early or late or by defending their homes or sheltering.
- The shelter options – including factors affecting the safety of different places of shelter and particularly motor vehicles in the open, dams, pools, creeks and water tanks.

*[*Editor's footnote: A recent review of the Australian Government's CRC Program introduced a maximum number of years that a CRC could be funded. Hence, the ineligibility of the Bushfire CRC to receive further funding under this program beyond 2013. The Bushfire CRC is not, however, precluded from seeking Australian Government funding from other programs.]*

AN AUSTRALASIAN FIRE RESEARCH INSTITUTE TO PURSUE ONGOING BUSHFIRE RESEARCH



**BY LEN FOSTER AO,
CHAIRMAN,
BUSHFIRE CRC**

A national bushfire research institute will be established to build upon the gains of the Bushfire Cooperative Research

Centre and the findings of the 2009 Victorian Bushfires Royal Commission.

The Royal Commission's final report indicates how much more Australians need to learn about living in one of the three most fire prone regions in the world, if the 173 lives lost on 7 February 2009 are not to be in vain.

Recommendation 65 of the Commission's report urges the Commonwealth to "establish a national centre for bushfire research in collaboration with other Australian jurisdictions to support pure, applied and long-term research in the physical, biological and social sciences relevant to bushfires and to promote continuing research and scholarship in related disciplines".

While Australia has fire agencies among the best in the world we still have much to learn. An Australasian Fire Research Institute will give us the new knowledge required for community safety.

The research program of the Bushfire CRC is now focussing on issues arising from the Black Saturday fires that have been highlighted by the 2009 Victorian Bushfire Royal Commission. These include communicating with bushfire prone communities, understanding the risk of living and working in bushfire areas, managing major incidents, and understanding extreme fire behaviour and its impact on the landscape.

It is essential that the issues raised by the Royal Commission and the many other reports and inquiries into fires in Australia, continue to be analysed over the longer term by the new Australasian Fire Research Institute.

The transition to this Australasian Institute recognises the importance of long-term pure and applied research into fire and the need to work together to protect communities all over Australia from the threat of bushfires. While Victoria's involvement is critical to this research program, the only sensible approach is on a national basis, with strong international



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links. We all realise that all the answers to future community safety cannot be found in Victoria alone. The Royal Commission recognised this by calling witnesses from around Australia and overseas.

The ongoing bushfire research program is supported by all Australian and New Zealand fire and land management agencies and a range of research organisations.

This support acknowledges the quality of the

Bushfire CRC's work and provides a strong sense of direction and certainty as we strive to better understand not only the tragedy of the 2009 fires in Victoria, but also the broader impacts of fire across Australia all year round.

While the next three years of research will focus on those national issues arising from the tragic 2009 fires, the strong support across Australia and New Zealand clearly demonstrates that problems in one jurisdiction are common to all. Through a broad analysis of different approaches, better guidance for fire agencies and communities can be provided.

Australia is now well placed to continue long-term fundamental and applied research and to work collaboratively with research partners internationally, particularly in parts of the United States and southern Europe, where communities are also seeking to better understand the major impacts of fire.

The research program for the Institute will now be further developed to take into account issues generated by the Victorian fires and other recent fires in Australia and other fire prone areas around the world.