

Appendix 1. Forest Fire Management¹ in Victoria. Inquiries, Reports and Reviews from the Past Eight Decades: 1939-2020

This Attachment lists in date order, the authors and key outcomes from a long series of inquiries and reviews covering the prevention, suppression, planned use of fire and recovery from bush fires for the period 1939 to 2019/20. The source references are listed at the end of the tables.

The first table lists the 34 inquiries, reports and reviews for the period. Of note is the observation that 12 have been conducted in the last decade. The second table lists details of nine recent bushfires from the period 2002 to 2019/20 and four earlier fires from 1851.

| Year | Source | Subject Matter | Some Key Outcomes |
|------|---|--|---|
| 1939 | Judge Stretton ⁽ⁱ⁾ | Royal Commission into 1939Victorian fires | Foundation for Forest Fire Management (1939) |
| 1945 | Judge Stretton ⁽ⁱⁱⁱ⁾ | Royal Commission into 1944 Victorian fires | Creation of the Country Fire Authority (CFA) in 1945. |
| 1977 | Sir Esler Barber ⁽ⁱⁱⁱ⁾ | Municipal fire prevention arrangements | Revision of municipal fire prevention arrangements. |
| 1982 | Taskforce Report to Minister of Forests ^(iv) | Fire protection and fuel reduction burning by the Forests Commission, Victoria | Considered by Government in the formation of the mega Department of Conservation Forests and Lands. |
| 1982 | Taskforce Report to Minister of Forests ^(v) | Examine appropriateness of the organisational structure of the Forests Commission to meet current operational needs and to conform to Government policy | Considered by Government in the formation of the mega Department of Conservation Forests and Lands. |
| 1983 | S.I. Miller ^(vi) | Serious problems with fire co-ordination and fire response | Resulted in the Emergency Management Act (1986). |
| 1983 | FCVic Fire Protection Seminar ^(vii) | Review of forest fire protection strategy and techniques following the 1983 bushfires | Incorporate the lessons learnt into organisational structure and operational practice. |
| 1984 | Department of Conservation, Forests and Lands ^(viii) | Report of the Fire Protection Working Party – to investigate and report on matters relating to Fire Protection within the Department and a proposed structure for the Fire Protection Branch. | Identified matters for attention and organisational arrangements for effective and efficient forest fire management. |
| 1985 | Department of Conservation, Forests and Lands ^(ix) | Summary of Significant Events 1984/85 Fire Season. Presented to: Australian Association of Rural fire Authorities. Perth 6-9 May 1985. | Identifies the value of deploying sufficient number of well trained personnel and equipment to aggressively attack and control multiple fires. |
| 1992 | Auditor-General Victoria Special Report No. 16 Fire Protection ^(x) | Review to evaluate the economy, efficiency and effectiveness of the Dept. of Conservation and Environment's management of its fire protection activities, embracing both fire prevention and fire suppression. | Identifies: <ul style="list-style-type: none"> • Forest fire management as one of the most important responsibilities of Government • Quality of the Department's strategic management of fire protection, the appropriateness of current funding arrangements & the extent to which Parliament & the community are adequately informed on the management of fire prevention & fire protection in the State's forests, national parks & other protected public land • Shortcomings in the key elements of the Dept's fire prevention program that raise serious concerns about the State's firefighting capability in particular areas of the State. |

¹ The prevention, suppression, planned use of fire and recovery from bushfire in the short and long term.

| Year | Source | Subject Matter | Some Key Outcomes |
|------|--|--|--|
| 2002 | Coroner Inquest. Linton Bushfire ^(xi) | Coronial Inquiry into the deaths of five volunteer CFA firefighters fighting a fire at Linton, near the City of Ballarat; December 1998. | <p>Recommendations for improved safety of all firefighters. Profound influence on the conduct of fire prevention and fire suppression operations.</p> <p>Annually, DSE and CFA jointly sign and widely promote to their respective workforces a Co-operative Agreement, a document with a strong operational and safety focus.</p> <p>Relevant occupational health and safety legislation recognise the Fire Ground as a 'workplace' and an Incident Controller as 'controlling' the workplace.</p> |
| 2003 | Department of Sustainability and Environment ^(xii) | The Victorian Alpine fires January – March 2003, Prepared by Kevin Wareing and David Flinn for Fire Management, Department of Sustainability and Environment 2003 | <p>The overall conclusion is that forest fire management must receive a higher priority.</p> <p>Reforms must be carried out that involve maintaining an operating environment that addresses various constraints encountered during the 2003 alpine fires. These include OH & S issues, Departmental organisational arrangements, fire containment strategies in National Parks and funding for the training and retention of skilled Fire Ground firefighters.</p> |
| 2003 | Auditor-General Victoria ^(xiii) | <p>Fire prevention and preparedness</p> <p>This audit commenced prior to the fires of summer 2002-2003 and did not examine suppression operations. The audit focused on the planning, prevention and preparedness measures that can prevent or reduce the severity of Victoria's seasonal wildfires and on whether those essential planning and prevention measures are being effectively implemented.</p> | <p>Improvements in fire prevention & preparedness have been made since the audit of fire prevention on public lands in 1992, and the tragedy of the Linton Fire in 1998.</p> <p>Further work is needed in a number of critical areas:</p> <ul style="list-style-type: none"> • Development of a State wildfire safety strategy by the Office of the Emergency Services Commissioner • Increased focus on strategic management of hazard reduction on public land to ensure that appropriate targets are set, resources are provided for their achievement and performance monitored. |
| 2003 | Esplin et al ^(xiv) | 2002/2003 Victorian Fires | Accepted by Government for formulating Victoria's forest fire management policy and practice. |
| 2003 | Commonwealth Parliament (House of Representatives) <i>A Nation Charred</i> ^(xv) | 2002/2003 Australian bushfires | Identifies critical needs for reform. The State of Victoria did not contribute to this inquiry. |

| Year | Source | Subject Matter | Some Key Outcomes |
|------|--|---|--|
| 2004 | COAG Council of Australian Governments ^(xvi) | Inquiry on Bushfire Mitigation and Management. Reported to the Prime Minister as the Chair of COAG on 2 April 2004 The report and COAG's response were released on 24 Jan 2005 | The Inquiry responded to its terms of reference by focusing on the following themes: risk factors contributing to bushfires; bushfire mitigation strategies and their impacts; the impacts of bushfires on the environment, life, property and the economy; resources and infrastructure for fire mitigation and firefighting; efficiency of resource use and the best use of technologies; cooperation between agencies and jurisdictions; and examples of good practice. |
| 2005 | Barrie Dexter and Athol Hodgson. ^(xvii) | The Facts Behind the (Alpine) Fire 2003. A Scientific and Technical Review of the Circumstances surrounding the 2003 Victorian Bushfire Crisis. | Placed on record Forest Fire Vic's opinion that the 2003 Esplin Inquiry failed to rigorously investigate and address underlying problems with Victoria's forest fire management policy and practice. Recommendations were made to address these problems. |
| 2005 | DSE (The fires at Wilson's Promontory NP in March-April 2005) ^(xviii) | Report into a prescribed burn ignited on 21 March 2005. Jarratt | In taking steps to reduce the fuel load in the Park, systemic problems were revealed dealing with compliance with practices and procedures; the state of preparedness in a number of crucial areas; effective supervision, management and leadership; and decision-making at key levels in the chain of command. |
| 2005 | Emergency Services Commissioner Esplin ^(xix) | Examination of Prescribed Burning Practices | The prescribed burning program is large and complex and is implemented in the short windows of time each year when conditions are suitable, to enable safe and efficient burning in consultation with surrounding land owners and staff involved in delivering the program. Improving the Management of Fuel Reduction Burns. |
| 2005 | Parks Victoria ^(xx) | Prescribed burn Tidal Overlook 21 March 2005 Planning and Implementation | The investigation found deficiencies in the planning and execution of the Burn Plan and with the suppression of the fires that resulted on the 25th and 29th March. |
| 2005 | Parks Victoria ^(xxi) | Tidal River 1-2 April 2005 final Report. Review of Parks Victoria's Implementation of Emergency Management Procedures | 17 Recommendations. Adjustments be made where necessary to the current Park Management Plan to reflect these recommendations. Responsibility for the implementation of these recommendations will be allocated to a member of the Parks Victoria Executive Team. This member should be held accountable for the implementation of all the recommendations. |

| Year | Source | Subject Matter | Some Key Outcomes |
|------|---|---|---|
| 2005 | Stuart Ellis ^(xxii) | Advice Internal report to Secretary DSE on Operational Fire Management | <p>This report may be viewed in part 3 (CD) of <i>Fire Management on Public Land - Victoria Burns While Its Bureaucracy Fiddles. Will Recent Legislative Changes to Crisis and Emergency Management Improve Fire Management on Victoria's Public Lands?</i></p> <p>Dexter, B.D; A. Hodgson AM. (Jan.2015)</p> |
| 2007 | DSE Fire & Emergency Management ^(xxiii) | <p>This narrative provides an important formal record of the event known as the "Great Divide Fires of December 2006 – February 2007". It includes the climatic conditions which contributed to this event and the planning response to these. It also records some notable firefighting achievements including the extensive backburning used to prevent the fire from entering the Thomson River Water Catchment thereby averting both short and long-term water supply impacts on Victoria's capital city.</p> | <p>The authors believe that Government has a duty of care to take all reasonable steps to protect the Victorian community from the development of large forest fires and thereby minimise the known adverse and long-lasting impacts on social, economic, cultural and environmental values.</p> <p>This can be achieved by the adoption of appropriate measures of fire suppression and fire prevention using DSE's 365-day-a-year model within a land management framework that takes account of the threat of wildfire across all forested land tenures.</p> <p>In respect to the suppression of wildfires there is a need to substantially increase the number of firefighters with the skills and fitness required to work effectively and safely on fires in remote locations. The firefighting resources guide (McCarthy <i>et al.</i> 2003) provides a scientific basis for determining appropriate resourcing levels within a risk assessment framework.</p> <p>1 death (firefighter); 51 houses; 1741 stock; 1.3 million hectares burnt.</p> <p>The June/July 2007 Gippsland floods followed.</p> |
| 2008 | Environment and Natural Resources ^(xxiv) | Committee Inquiry into the Impact of Public Land Management Practices on Bushfires in Victoria, June 2008. State Government of Victoria. | <p>That to lessen the impact of more frequent and intense fires, as predicted by climate change projections, a substantial and sustained increase in resources to conduct preventive activities will be needed. An increase in landscape scale prescribed burning, as recommended in Chapter Two, represents the key strategy for minimising the fire risks associated with climate change.</p> <p>In order to minimise the future risk of fire and facilitate the development of appropriate fire regimes, key bushfire management documents, for example, the Code of Practice and Fire Ecology Strategies, need to explicitly consider, and if necessary, incorporate, the potential impacts of climate change on bushfire.</p> |

| Year | Source | Subject Matter | Some Key Outcomes |
|------|--|--|--|
| 2009 | 2009 Victorian Bushfires Royal Commission ^(xxv) | 7 February 2009 will be remembered as one of the darkest days in the state's memory of bushfire. One hundred and seventy-three people died, townships were destroyed, about 78 communities were affected, and 430,000 hectares were burnt. | <p>The Commission conducted an extensive investigation into the causes of, the preparation for, the response to and the impact of the fires that burned throughout Victoria in late January and February 2009.</p> <p>Commissioners concentrated on gaining an understanding of precisely what took place and how the risks of such a tragedy recurring might be reduced making 67 recommendations.</p> |
| 2009 | Peter Attiwill & David Packham, Tim Barker, Ian Hamilton ^(xxvi) | People's Review of Bushfires 2002 - 2007 | Recommended that the grazing of domestic livestock on public land ... can be managed to reduce fuel loads. |
| 2011 | McCarthy et al. The Great Divide Complex of Fires ^(xxvii) | Analysis of the resourcing and containment of multiple remote fires: The Great Divide Complex of fires, Victoria, December 2006 | <p>The quantity of firefighting resources required to contain all fires started from 66 lightning strikes across Victoria's Great Dividing Range within the first 4-6 days was calculated and compared with the quantity of resources actually deployed.</p> <p>The minimum of resources required was found to be substantially more than that available.</p> |
| 2012 | Dexter, B and A. Hodgson ^(xxviii) | Concerns about the organisational arrangements and related matters for effective and efficient forest fire management. | <p>Identifies fundamental issues described in the 2009 Victorian Bushfires Royal Commission that remain unaddressed.</p> <p>The level of expertise and resources available to combat the fire threat remained in a worse condition than any time since the early 1980s.</p> <p>The report was referred to the then responsible portfolio ministers who passed in on to the Fire Services Commission for consideration.</p> |
| 2013 | Emergency Services Commissioner Michael Hallowes ^(xxix) | Harrietville Fire 2013 "Report of the Facts" on how the initial response to the fire was managed by DSE and the Country Fire Authority (CFA). | <p>Emergency Services Commissioner's key finding:</p> <p><i>'in my opinion there was no information to support the view that an increased weight of attack or a change of strategy and tactics on 21 and 22 January would have altered the outcome of the fire on 22 January 2013'.</i></p> |

| Year | Source | Subject Matter | Some Key Outcomes |
|------|--|--|--|
| 2013 | Phil Cheney, Barrie Dexter, Athol Hodgson AM, David Packham AOM ^(xxx) | An evaluation of the ESC Hallows' report into the Harrierville fire, January 2013. Are the findings consistent with all the facts? | Under the circumstances on the fireground there are strong reasons to consider that full advantage was not taken of the window of opportunity to contain and control the Harrierville fire in the first 24 hours. |
| 2015 | The Inspector General for Emergency Management ^(xxxii) | A general analysis of the initial response to the Wye River – Jamieson Track fire with a focus on the period 19 to 25 December 2015. | <i>"IGEM recognises the appropriately scaled approach to control and resource allocation throughout this fire. The effectiveness of strategy planning and implementation were highly likely to have contributed to the successful outcome of preserving life and minimising further losses. This achievement of the most important strategic control priority is a successful outcome for the community and the emergency management sector. IGEM supports the intent, rationale, decision process and implementation of the fire control strategies in order to reduce risk to communities"</i> |
| 2015 | Independent Lancefield-Cobaw Investigation Team - Murray Carter (Lead Investigator) ^(xxxii) | The Carter Report opens with a salutary reminder of the relevant legislation governing DELWP's responsibilities for forest fire management on public land. | Recommendation 3.1.3.1 a review of the organisation's structures and processes at state, regional and district levels should be undertaken to better integrate operational burn planning and operational burn implementation and to provide sound governance, risk management and quality control. |
| 2015 | IGEM April 2015 ^(xxxiii) | Review of performance targets for bushfire fuel management on public land. | <i>"IGEM recommends a risk reduction target as the most effective form of performance target for bushfire management on public land to protect life and property and guide investments in fuel reduction burning"</i> but placed significant caveats on the adoption of this new approach, particularly on measuring success and core measures and complimentary measures on performance. |
| 2016 | Dexter, B D; A Hodgson AM and Rod Incoll AFSM ^(xxxiv) | An Evaluation of Inspector-General for Emergency Management Review of The Wye River – Jamieson Track Fire and Related Matters. What are the real lessons learnt? | Notwithstanding that there was a highly successful evacuation of threatened Surf Coast communities and that the number one priority of preservation of life was fortuitously met; the evaluation concludes that there was a high probability that the fire could have been quickly brought under control. |

Significant Recent Bushfires in Victoria

| Year | Name/Location | Size (ha.) | Duration | Impact |
|---------|--|------------|---------------------------------|---|
| 2002 | Big Desert | 181,000 | 17 – 31 December | National Parks. Sever environmental damage. |
| 2003 | Alpine Fire 2003 | 1.07M | Jan.8 – March 7 | 1 life, 26 houses, 250 farm buildings, 13,713 Livestock, fencing & fodder; significant areas of park & forest resource and environmental values destroyed |
| 2005 | Wilson's Promontory NP | 6,200 | 21 Mar – 10 Apr | 542 people evacuated, significant areas of park & infrastructure damage. |
| 2006 | Grampians | 184,000 | January | 25 homes; 47% of the national park severely damaged |
| 2006/7 | Great Divide Fire | 1.15M | Dec - Feb | 1 life, 33 houses, 255 buildings, 1334 livestock; significant areas of park and forest destroyed. |
| 2009 | 'Black Saturday' | 430,000 | February | 173 lives; 2,000 homes; 12,000 livestock; 1 million native animals (est.); significant areas of park and forest impacted; 8.5m. tonnes CO ₂ released; \$4B cost. |
| 2013 | Harrietville | 37,000 | 21 January – 27 February | 2 lives (firefighters), very high suppression costs and significant on-going recovery costs. |
| 2014 | East Gippsland Goongerah-Deddick Trail | 165,800 | 16 January – 27 March (70 days) | 9 Houses, fences, hay, pasture, 163 livestock, infrastructure. Significant environmental and resource losses. |
| 2015/16 | Wye River – Jamieson track | 2,500 | Dec'15/Feb'16 | 116 homes, huge environmental damage, very high suppression cost and massive on-going recovery costs. |
| 2019/20 | East Gippsland | 300,000+ | Nov' 19 – Mar'20 | Under IGEM Review of 2019/20 bushfire season. |

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- ii Victoria. Royal Commission to Inquire into the Place of Origin and the Causes of the Fires which Commenced at Yallourn on the 14th day of February 1944. Judge L E B Stretton.
- iii Government of Victoria (1977). Report of the Board of Inquiry into the Occurrence of Bush and Grass Fires in Victoria. The Esler Barber Inquiry (1977).
- iv 1982 Report to the Minister of Forests by Task Force appointed to examine fire protection and fuel reduction burning by the Forests Commission Victoria.
- v 1982 Report to the Minister of Forests by Task Force to examine the appropriateness of the organisational structure of the Forests Commission to meet current operational needs and to conform to Government policy.
- vi Miller, S.I., Carter, W. & Stevens, R.G. 1984, 'Report of the Bushfire Review Committee on Bushfire Disaster Preparedness and Response in Victoria, Australia, following the Ash Wednesday Fires 16 February 1983', Report to the Hon. C.R.T. Matthews, MLA Minister for Police and Emergency Services, Melbourne.
- vii Forests Commission Victoria (1983). Fire Protection Seminar – Review of forest fire protection strategy and techniques following the 1983 bushfires – July 1983.
- viii Department of Conservation, Forests and Lands (1984). Report of the Fire Protection Working Party – to investigate and report on matters relating to Fire Protection within the Department and a proposed structure for the Fire Protection Branch – 1st October 1984.
- ix Department of Conservation, Forests and Lands (1985). Summary of Significant Events 1984/85 Fire Season. Presented to Australian Association of Rural Fire Authorities. Perth 6-9 May 1985.
- x Auditor-General of Victoria: Special Report No. 16 Fire protection April 1992.
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- xii Department of Sustainability and Environment (2003). The Victorian Alpine fires January – March 2003. Wareing, K.J and D.W. Flinn. ISBN 1 74106 624 7 www.dse.vic.gov.au/fires

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- xiii Auditor-General Victoria: Fire prevention and preparedness No.15 Session 2003. tabled in the Victorian Parliament May 8, 2003. This audit commenced prior to the fires of summer 2002-2003 and did not examine suppression operations. The audit focused on the planning, prevention and preparedness measures that can prevent or reduce the severity of Victoria's seasonal wildfires and on whether those essential planning and prevention measures are being effectively implemented.
- xiv Esplin, Bruce: Dr. M. Gill and Prof. N. Enright (2003). Report of the Inquiry into the 2002 – 2003 Victorian Bushfires. ISBN: 0731114884 State Government of Victoria, 2003. <http://www.dpc.vic.gov.au>
- xv The Parliament of the Commonwealth of Australia (2003). House of Representatives Select Committee into the recent Australian bushfires 23 October 2003.
- xvi Council of Australian Governments (COAG) (2005). Inquiry on Bushfire Mitigation and Management. COAG reported to the Prime Minister as Chair of COAG, on 2nd April 2004. The Report and COAG's Response were released on 24th January 2005.
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- xviii Department of Sustainability and Environment (2005) Report on the Fires at Wilson's Promontory National Park in March-April 2005.
- xix Emergency Services Commissioner. Examination of Prescribed Burning Practices. October 2005
- xx Department of Sustainability and Environment. Investigation Report. Planning & Implementation. Prescribed burn tidal Overlook 21 March 2005
- xxi Parks Victoria. Review of Parks Victoria's Implementation of emergency Management Procedures at tidal River 1-2 April 2005. Final Report
- xxii Stuart Ellis* AM (October 2005). Report to the Secretary Department of Sustainability and the Environment. Advice on Operational fire Management [internal advice to the Department – unpublished]. * Director, Leading Emergency Services P.O. Box 217. Steptey S.A. 5069.
- xxiii The Victorian Great Divide fires December 2006-February 2007 A narrative prepared by: David Flinn, Kevin Wareing and David Wadsley for Fire and Emergency Management Department of Sustainability and Environment. August 2007.
- xxiv Environment and Natural Resources Committee. Inquiry into the Impact of Public Land Management Practices on bushfires in Victoria. June 2008. Parliament of Victoria.
- xxv 2009 Victorian Bushfires Royal Commission
- xxvi People's Review of Bushfires, 2002-2007, in Victoria; Final Report 2009. Peter Attiwill & David Packham, Tim Barker, Ian Hamilton ISBN 9780646510392
- xxvii G.J. McCarthy, M.P. Plucinski and J.S. Gould. Analysis of the resourcing and containment of multiple remote fires: The Great Divide Complex of fires, Victoria, December 2006. [Revised manuscript received 7 July 2011] Australian Forestry 2012 Vol. 75 No. 1 pp. 54-63
- xxviii Dexter, B and A. Hodgson, March 2012. Forest Fire Management in Victoria – Is the State Coping? Concerns about the organisational arrangements for forest fire management in Victoria. Part 1 and Part 2. forestfirevictoria.org.au.
- xxix Harrietteville Fire 2013 Report to the Minister for Police and Emergency Services. Office of the Emergency Services Commissioner. Michael Hallowes April 2013. Department of Justice
- xxx Phil Cheney, Barrie Dexter, Athol Hodgson AM, David Packham AOM. 8th June 2013. An evaluation of ESC Hallowes' report into the Harrietteville fire, January 2013. Are the findings consistent with all the facts?
- xxxi Inspector-General for Emergency Management. Review of the initial response to the 2015 Wye River – Jamieson Track fire. February 2016.
- xxxii Independent Investigation of the Lancefield-Cobaw Fire. Prepared by the Independent Lancefield-Cobaw Investigation Team Murray Carter (Lead Investigator) 2015
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- xxxiv Dexter, B D; A Hodgson AM and Rod Incoll AFSM. An Evaluation of Inspector-General for Emergency Management [IGEM] Review of the Wye River – Jamieson Track Fire and Related Matters. What Are The Real Lessons Learnt? 4 April 2016.