



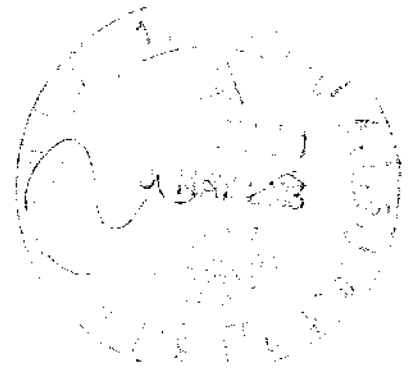
Forestry Tasmania

GROWING OUR FUTURE

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2 May 2003

Submission No.173

Committee Secretary  
House Select Committee on the recent Australian bushfires  
Department of the House of Representatives  
Parliament House  
CANBERRA ACT 2600

Dear Sir/Madam

Forwarded herewith a submission from Forestry Tasmania to the House of Representatives Select Committee of Inquiry into the Incidence and Impact of Bushfires

Yours sincerely

Evan R. Rolley  
**Managing Director**

# A submission from Forestry Tasmania to the House of Representatives Select Committee Inquiry into the Incidence and Impact of Bushfires, April 2003

## **About Forestry Tasmania:**

Forestry Tasmania is a Government Business Enterprise responsible for multiple use management of the 1.502 million hectares of the public forest estate in Tasmania. Forestry Tasmania (FT) combines its resources with those of the Tasmania Fire Service (TFS) and the Parks and Wildlife Service (PWS) to suppress large bushfires, which are managed by integrated Incident Management Teams. Forestry Tasmania evolved from the former Forestry Commission, which had a history of managing fire in Tasmania's forests and rural lands dating from the 1920's. The current organisation numbers 570 direct employees and 600 contractors. Four hundred of the employees are trained, equipped and physically fit for fire suppression duties. The contractors are also trained and have equipment available to assist in firefighting. Forestry Tasmania comments on parts (a) to (e) and (h) of the Terms of Reference, being areas relevant to forest land managers.

## **Summary of Main Points:**

1. The community's understanding of the role of fire in the natural environment of Australia does not match the risk related to issues such as urban development in rural landscapes. Community and political interest in fire management diminishes rapidly, once seasonal bushfire crises are over. Two community education programs within the new Bushfire Cooperative Research Centre will focus on community self-sufficiency and the protection of people and property from the impacts of bushfires. The outcomes of these programs must be tested to measure their effects on the community's response to fire management issues. An ongoing, publicly funded program of community education on fire management is needed.
2. The combination of fuel and its characteristics, particularly dryness, with severe fire weather provides the underlying potential for all bushfires. The variability in either one or other of these elements largely determines the scale and impact of an event. Mitigation of the effects of bushfires involves a suite of measures from prevention to suppression. The Fire Management Plan, specific to the assets at risk, must set the objectives for prevention and mitigation strategies. Fire Management plans need to be publicly accessible, regularly reviewed with performance to plan targets reported annually.
3. It would be prudent to assume that regardless of human intervention, infrequent catastrophic bushfires will occur in the future as they have in past and we must therefore take all reasonable measures, including fuel reduction programs, to limit their impacts.
4. Prescribed fire is a vital part of broad scale land management. There are risks inherent in the use of fire. The intensity and frequency of prescribed fires must be ecologically sustainable unless there is a conscious decision to simplify the

vegetation to achieve a strategic objective. It is essential that fire practitioners are equipped with the best information that science can provide, together with the necessary skills and experience to use fire competently in achieving management objectives.

5. Investment in user-driven research into key aspects of fire science and fire management practice, with rigorous evaluation of results will be the best way of achieving innovation and long-term improvement in fire management. Evolving technology, including aerial firefighting must be objectively assessed for its advantages against costs.
6. The benefits of a collaborative response to large-scale bushfires are readily apparent. This collaboration must be extended to the management and use of fire in fuel reduction activities so that regular, annual programs can be implemented collectively by the major land owners. Improving and refining operational effectiveness between the key participants is a national imperative.

#### **Specific comment relating to the Terms of Reference:**

***“(a) the extent and impact of the bushfires on the environment, private and public assets and local communities;”***

In common with the rest of eastern Australia, Tasmania experienced an extended dry summer with drought conditions carrying over from three consecutive years of below average rainfall. Across the State in the 5 months from November 2002 to March 2003, some 1500 vegetation fires burnt 6000 hectares of State forest, 16,500 hectares of National Parks and Reserves and 29,500 hectares of private property, some 52,000 hectares in total. Six homes were burnt, several hundred farm animals killed and a timber company lost 2,000 hectares of pine plantation. There were no deaths or serious injuries.

Almost half of the area burnt occurred in two fires. One of 18,000 hectares on Flinders Island burnt throughout January, threatening the town of Whitemark and the nearby airport. This event had a significant impact on the small population. Another major fire of 14,400 hectares occurred in a semi-rural area on the northern fringe of Hobart and threatened homes, outbuildings and livestock over several days. Losses were limited to two homes, several sheds, vehicles, stock and fencing.

Large and damaging fires have been recorded in Tasmania since the late nineteenth century. The years cited in previous reports are: 1889, 1914, 1927, 1934, 1939, 1961, 1967, 1973, 1982 and 1993. In the last fifty years, there have been four incidences of catastrophic fires, where the area burnt exceeded 100,000 hectares: 1961, 1967, 1973 and 1982. The common precursor to these events has been drought and the end results caused by short periods of extreme fire weather. The weather in 2003 was warm and very dry but the absence of a strong north-westerly airstream at critical periods during the summer prevented a much worse outcome in the south of the State.

**Infrequent and irregular occurrences of severe fire seasons in Tasmania result in a diminishing community and political awareness of fire issues between serious**

bushfires. The community's understanding of the role of fire in the natural environment of Australia, generally, does not match the risks related to contemporary issues such as urban development in rural landscapes. A nationally funded education program on the role of fire in the environment is a priority. It is noted that Programs C – “Community Self-Sufficiency for Fire Safety” and D – “Protection of People and Property” of the new Bushfire Cooperative Research Centre offer promising and timely opportunities to address this issue from a national perspective. The technology transfer and public education components of these programs must be adequately resourced if their public benefits are to be fully realised.

*“(b) the causes of and risk factors contributing to the impact and severity of the bushfires, including land management practices and policies in national parks, state forests, other Crown Land and private property;”*

Statistics compiled by Forestry Tasmania indicate causes of fires attended and area burnt by each, averaged over 10 years. In 2001/02, the figures were:

<b>Causes of fires attended by FT</b>	<b>No</b>	<b>%</b>	<b>Area</b>	<b>%</b>
Escapes from management burning (FT only)	6.9	8.54	1395.5	7.94
Escapes from management burning (Landholders)	8.4	10.47	4339.9	24.69
Other escapes (campfires etc)	1.8	2.20	250.8	1.43
Arson	38.7	47.93	4890.2	27.82
Other causes including “unknown”	24.9	30.86	6701.1	38.12
<b>Total of 10 year averages</b>	<b>80.7</b>	<b>100</b>	<b>17577.5</b>	<b>100</b>

The lighting of bushfires by people is consistently the most significant cause. The figures understate the extent of this as a large proportion of fires of “unknown” cause are also lit by people, once other obvious sources of ignition, such as lightning and accidents have been eliminated. In 2002/3 Tasmania experienced an unusually high number of fires originating from lightning, power lines, machinery and tools. This fact can be attributed to the extreme dryness of fuels and periods of very low humidity during this summer. Two serious forest fires were initiated by timber harvesting machinery prompting a review of industry fire prevention protocols and the introduction of strengthened prescriptions. The revised protocols appear to have been effective in limiting further ignitions but it is recognised that significant costs in lost production were incurred by the industry.

The two largest fires in Tasmania in 2003 provide case studies. The fire on Flinders Island started by lightning in a remote part of the Darling Ranges. The Darling Ranges is typically isolated country with a mosaic of fuel types and fire ages. Fire management is constrained by the resources reasonably available to a small island community. Fire access trails and limited fuel management programs have been the response to the perceived risk. In this case, the island's firefighting resources were rapidly overtaken by severe fire weather with low humidity and isolated wind events up to 100 kilometres per hour, alternating in direction through 180°. No strong relationship between the land manager's policies and their implementation and the outcomes from this fire is readily apparent.

The second fire was deliberately lit 30 kilometres to the north west of Hobart. Assisted by high temperatures and a fluctuating north-westerly airstream, it spread rapidly through a populated rural landscape of cured grasslands and a small town. The western flank entered Mount Dromedary State forest and Forest Reserve, burning managed areas of thinned eucalypt and younger aged regrowth as well as mature trees. The loss of homes was minimal, underscoring the effectiveness of the TFS' policy, which encourages capable and prepared householder defence.

In contrast to the isolation of the Darling Ranges and the limited resources of a remote community, this fire was close to the highest concentration of resources and expertise within the State, yet the outcome, in terms of fire size and duration was essentially the same.

**The combination of fuel and its attendant characteristics, in particular the fuel dryness, with severe to extreme fire weather provides the potential for a bushfire. Variability in either factor influences the scale of the event. Mitigation of the impacts of bushfires involves a suite of measures, there being no simplistic and universal answer. The Fire Management Plan, specific to the community at risk, needs to identify potential threats, including fuels and mitigation strategies. Fire Management Plans need to be publicly accessible, regularly reviewed with performance to plan targets reported annually.**

*“(c) the adequacy and economic and environmental impact of hazard reduction and other strategies for bushfire prevention, suppression and control;*

Forestry Tasmania adopted a policy of using low intensity fire to manage specific fuel types in the early 1960's. This effort peaked during the eighties when 35,000 to 45,000 hectares of dry forest and moorlands were treated annually over a four year period. This was about 8% of those vegetation types within State forest. In subsequent years the program reduced significantly. A number of reasons have been cited for this shift. Reasons for reduced fuel reduction burning include an increased program of native forest regeneration and plantation establishment, the transfer of responsibility for the management of some land under the Regional Forest Agreement but principally, the increasing complexity of fire management due to constraints on forest burning. A simplistic broad area burning regime has been replaced by more strategic fuel management, with target areas identified in Fire Management Plans, taking greater account of habitat management and bio-diversity issues. Even under this regime, there has been localised community opposition to burning and the consultative and planning requirements are exhausting of both time and resources.

Recent initiatives to boost the implementation of strategic burning under Fire Management Plans have included the establishment of a dedicated task force of casual employees recruited from seasonal firefighters, employed over the summer by the Parks and Wildlife Service. To be effective, these programs need to be implemented across land tenure boundaries and should ideally be supported by all the stakeholders under a coordinated management structure, in the same way that suppression is organised.

While low intensity fuel reduction burning has reduced, overall forest activity has intensified. Fuel management associated with regeneration burning and plantation

establishment accounts for 35,000 hectares annually, inclusive of private forest management. The additional roads (300 – 400 kilometres a year) and bridges to service this industry serve to facilitate fire suppression. The increasing value of the asset provides the incentive for a more effective early response. This underscores the importance of pro-active management of an estate to meet the land owner's policy objectives in relation to fire management. These objectives must be well defined and capable of being translated to effective and measurable implementation strategies.

**It would be prudent to assume that regardless of human intervention, infrequent catastrophic bushfires will occur in the future as they have in past and we must therefore take all reasonable measures, including fuel reduction programs, to limit their impacts.**

*“(d) appropriate land management policies and practices to mitigate the damage caused by bushfires to the environment, property, community facilities and infrastructure and the potential environmental impact of such policies;”*

Forestry Tasmania is a member of the Tasmanian State Fire Management Council, a body formed after the 1994 independent Bale Review of Vegetation Fire by authority of Section 14 of the Fire Service Act 1979. The State Fire Management Council is comprised of representatives of all the principal land managers, fire agencies and local government. The Council's policy supports the use of fire and the development of integrated Fire Management Planning. Through its web site,<sup>1</sup> the Council aims to foster best fire management practice by all fire users along with greater public awareness of fire's role in the environment. The Council's policy supports planned burning based on management objectives, taking account of the need to maintain biodiversity and avoid the simplification of vegetation types through inappropriate burning regimes.

**Prescribed fire is a vital part of broad scale land management. There are risks inherent in the use of fire. The intensity and frequency of prescribed fires must be ecologically sustainable unless there is a conscious decision to simplify the vegetation to achieve a strategic objective. It is essential that fire practitioners are equipped with the best information that science can provide, together with the necessary skills and experience to use fire competently in achieving management objectives.**

*“(e) any alternative or developmental bushfire mitigation and prevention approaches, and the appropriate direction of research into bushfire mitigation;”*

Currently there is a disturbing trend which sees the fire management agenda being driven by uninformed public comment, biased towards high cost firefighting technology and aircraft in particular. This approach mirrors the US experience where it has been observed that the process becomes self-sustaining, with powerful interested lobby groups influencing policy direction. As these systems become entrenched, the costs of fire suppression will become unsustainable while the outcomes, during the cyclic severe fire seasons, will be largely unchanged.

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<sup>1</sup> [www.sfmc.tas.gov.au](http://www.sfmc.tas.gov.au) “Guide to Best Fire Management Practice for Fire Users in Tasmania”

Research into fire behaviour and suppression strategies is an ongoing need. It is imperative, however, that the knowledge currently available from past programs, such as Projects Aquarius and Vesta is put into practice at the regional level. Government funded programs are needed for this specific purpose.

**The Tasmanian Government has made a \$1.82 million commitment over seven years to the Bushfire Co-operative Research Centre. This investment in user-driven research into key aspects of fire management is seen as the best way of achieving long-term improvements and innovation. It must be matched with funding to translate new information and emerging technologies into practices which can be implemented at field level.**

*“(h) the adequacy of deployment of firefighting resources, including an examination of the efficiency and effectiveness of resource sharing between agencies and jurisdictions;”*

In Tasmania, long duration, multiple tenure firefighting events are managed by combined Incident Management Teams (IMT), coordinated through a Multi-Agency Coordinating Group (MAC). This process is underpinned by an Inter-Agency Fire Management Protocol between the Tasmania Fire Service, Forestry Tasmania and the Parks and Wildlife Service. It was initiated in 1994 and has been evolving ever since. These cooperative arrangements extend well beyond seasonal imperatives to include fire management planning, training, detection, research and representation at national and international meetings. The result has been an improved response to large bushfire incidents with better coordination and use of specialist resources from each agency. The overall unit costs to the State for the existing levels of preparedness are reduced, compared to the case where separate approaches are taken by individual land managers and the statutory fire authority.

The role of the MAC is to monitor the state wide fire situation and appoint, IMTs, based on the scale and complexity of incidents. The MAC oversees a process, which includes reinforcing ICS principles and mentoring of IMTs. The performance of functions down to sector commander is formally reviewed against defined standards. It is part of the MAC's role to assess the outcomes from each season and develop strategies to address weaknesses in systems and opportunities for improved performance.

Firefighting in Tasmania is supported by a recently developed PC-based Inter-agency Resource Management System (IRMS) which is designed to capture all operational data for bushfire incidents.

**Multi-Agency Coordination in Tasmania is at a high level of operational effectiveness. The significant, practical benefits of seamless integration of expertise and resources have been highlighted across a range of bushfires in different environments. The process has facilitated the deployment of combined agency task forces to mainland States and overseas.**

**Forestry Tasmania  
April 2003**