



The Chairman,  
House Select Committee on recent Australian Bushfires,  
Parliament House,  
Canberra. ACT.

Dear Sir,

Inquiry into the recent Australian Bushfires.

I hereby submit my comments to the above. I make this submission with the desire that some radical action is taken in this state (and others) as soon as possible to reduce the probability of major destructive bushfires. I write this from first hand knowledge, having spent nearly 40 years as an officer with the Department of Conservation and Land Management in Western Australia. 27 of these years were in fire management roles, as District and Regional Fire Officer. As such I have had substantial experience in all aspects of land and specifically fire management, including managing the Southern Forest Regions prescribed burning programmes (> 100,000 ha per year at times, for all purposes), fire suppression, fire planning, fire crew training, writing training and administrative material etc.

I am still actively involved in fire management, preparing prescribed burning prescriptions for Bush Fire Services (WA), and as a consultant for various developments etc. I would like to meet with the Inquiry Committee if they come to the South West of WA. I also attach some relevant additional material that I have prepared previously.

- This state is considered a leader in fire management (particularly prescribed burning) throughout the world. However, in the last ten or so years, the amount of prescribed burning has been reduced substantially, for various reasons.
- As a result of the above, fuel levels in forest and conservation parks have increased to the point where the likelihood of major numerous devastating wildfire will occur.
- Large (10000 +) hectare fires in old and new growth forest are likely to occur. Such fires will devastate the regrowth particularly requiring the need for some emergency salvage operations, clearing, replanting and waiting 20 to 30 years for the areas to reach the same size/age as previously attained. The loss of this hugely important resource will have a huge impact on the states timber industry and may require importation of material from overseas or interstate to replace it.
- It is also likely that substantial areas of our states hardwood and softwood plantations are likely to be damaged by wild fire, with similar consequences.
- The Ministers and Heads of State Conservation Departments need to be made more accountable for their actions (or lack of action usually). I assume that not one resignation has been forthcoming after the eastern states fires this year?

- At present the Federal Government supports the State Government with fire suppression equipment, particularly waterbombers. These are most appreciated, but more money needs to be made available for prescribed burning either from State or Federal sources. However, funding should be tied to productivity (no burn no pay, or some agreed incentive to meet realistic targets).
- The unit cost of prescribed burning compared with fire suppression (and possible loss of life, and forest resources etc) is miniscule. The Point Nuyts fire at Walpole in 2001 cost nearly \$350,000 to suppress, when it could have been prescribed burnt for around \$10,000 (and without the substantial loss of endangered fauna and damage to the ecosystem, some of which may not recover because of the fires very high intensity).
- The targets for prescribed burning in WA in land managed by CALM needs to be raised substantially, particularly to reduce the fuel in the backlog areas that have fallen behind in the programme.
- Such targets need to be set with public consultation by the community but not hijacked by green pressure groups who have no accountability on outcomes. (How many greens will be asked to give evidence at coronial inquests over the recent fires even though they have been largely responsible [by putting political pressure on politicians and senior departmental personnel] for many of these fires to reach the sizes and cause as much damage as they did).
- The Ministers and Senior Executives of CALM need to be made accountable for meeting these targets.
- Targets need to be set using local knowledge and scientific material such as the Wild Fire Threat Analysis. Priorities for individual burns need to be set using a combination of local knowledge and input from CALM staff, local bush fire brigades, and local residents.
- By allowing fuel levels to increase to serious levels throughout much of the public land it manages, and requiring fire crews to suppress fires that may occur in these areas, CALM and the Government is failing to provide a safe work place for its employees. Many roads are not adequately maintained leading to the possibility of entrapment of crews in suppression situations. I have many friends within CALM and would hate to lose any during fire suppression activities.
- With more people being encouraged into the forests and parks (that are carrying heavy fuel loads) eg the Bibbulmun Walk Track, the risk of them being trapped during wildfires is increasing also.
- Heavy fuel loads in adjacent areas to those being burnt increases the likelihood of escapes from prescribed burns, and increased difficulty in suppressing such escapes.
- With increased housing and hobby farms on the urban interface the potential for assets to burn in wildfires is increased. With increased litigation occurring, the government is likely to be facing increased claims and payments, particularly if the state managed area adjacent is known to be carrying very heavy fuels and requests have been made by the property owner beforehand for the area to be burnt.
- There are many private properties and houses with very heavy fuels around them, often with little or no attempt to make the property safe from bushfires. It is usually the local bushfire brigades that are expected to protect these properties during wildfire, sometimes at great risk to

themselves. I have long advocated that senior local bush fire brigade officers should inspect known hazardous properties prior to each fire season, and if necessary :-

- Notifying the owner in writing of remedial actions required, including completion dates,
- If the owner does not comply, send them a letter (with a copy to the local authority, and the insurance council) indicating that the property has been declared a safety hazard and brigades will not attempt to suppress fires on that property. Shire to advise other brigade members and CALM.
- Place a red painted rock at the entrance to warn other brigade members.
- The Insurance council needs to review its premiums for poorly maintained houses, or those in very high risk areas.
- Many areas of private lands and those managed by local authorities and other (than CALM) government agencies are carrying excess fuel loadings. This issue needs to be assessed and resolved, and make these accountable also. These should also be made accountable for the proper management of these lands, particularly fire.
- There is a serious reduction in the availability of "backup" resources from the timber industry, particularly heavy machinery and trained/experienced operators.
- There are more calls for bush fire brigades to assist CALM with the suppression of wildfires. Fire suppression is a highly skilled task and takes many years to achieve sufficient experience to combat fires safely.
- Generally other agencies in WA have little experience with fire suppression with forest fires. It may be more appropriate to fly experienced crews in from other states to assist in combating major fires here (even though they don't know the local features) than attempt to train local brigades which would be a time consuming (3 fire seasons minimum) and expensive and difficult to administer operation. However, in areas with low employment opportunities, training to become even seasonal fire crew members may be warranted if funds were made available.
- More regular fire crew members (even summer casuals) need to be appointed to CALM to allow more burning to be undertaken, at least until the backlog is rectified. More skilled CALM fire crew personnel are not only needed to maximise production of prescribed burns when conditions are available, but also for fire suppression operations. The size of the estate that CALM manages has increased substantially over the past 15 years but the number of staff available to manage this area has not increased to compensate for this.
- An increase in CALM fire crew numbers is also needed for another very important reason. As there is less numbers of crew people available, the existing crews are rostered on detention for fire suppression and prescribed burning availability are now rostered more frequently. Some key crew personnel in this area have been rostered on for 13 weeks (and weekends) straight, and some have worked 8 weeks straight without a break. Fire suppression (and some types of prescribed burns) can be very stressful, it is therefore inappropriate and potentially unsafe to expect a person to function effectively and safely for long periods,

often working 16 hours per day. It is only a matter of time before a serious accident or death results from tiredness or inattention caused by accumulated non rest periods.

- In addition to the above, it is totally unfair on families and relationships for their loved ones to be required to work away from home, or to be able to leave home because of work/duty commitments.
- To better assist the fire suppression manager (Incident Controller) real time satellite imaging ideally should be available.
- A public education/information programme should be established to clearly and positively show the public the benefits of prescribed burning, and debunk some of the fanciful myths and misinformation pedalled by the green movement and academics with no fire management experience. In particular the public need to be convinced that prescribed burning is vital to the protection and well being of the bush. They can play their part by supporting the politicians that support prescribed burning, and being prepared to accept some smoke at times over regional centres and cities.
- The government needs to relax the levels of allowable smoke over metropolitan and regional areas, and in particular restrain the overzealous bureaucrats in the Environmental Protection Authority who apparently have zero tolerance to smoke for burning.
- The tens of thousands of native animals, the loss of precious heritage assets, and the huge environmental, resource, financial and emotional costs of the fires in the eastern states cannot be allowed to occur here.
- There has already been substantial research in this state into the effect of fire on the environment, and whilst more is always needed, any calls for a reduction of burning because of lack of research should be ignored. Any research should be directed towards confirming the most appropriate fire regime for key vegetation types, thus assisting the fire planner to schedule burns for the best environmental outcome.
- Devastating bushfires can be avoided with good planning, community support, adequate resources and finance, and the willingness to achieve burning targets. The whole community and the environment will be the winners in every aspect if this can be done.

For your information, CALM in WA undertook a comprehensive review of its fire management operations in 2001. This was conducted by Mr Chris Muller, CALMs Regional Manager at Karratha in the Pilbara, a fire specialist with substantial field and administrative experience both here and Victoria. He is the author of the Wildfire Threat Analysis programme which has been widely acclaimed by fire managers both here and interstate. I would like to suggest that if CALM is willing to make Mr Muller available, he could supply significant expertise in this field if you should require it. It identifies many problems and contains many recommendations to improve fire management by CALM.

As I mentioned previously, I would appreciate the opportunity to discuss the above items with the Committee if that is possible.

Yours sincerely,  
John Stewart Evans,  
5 May 2003.

## POTENTIAL WILDFIRE DISASTERS INEVITABLE IN SOUTHWEST FORESTS

A very serious situation exists in the southern forests of Western Australia, particularly in the magnificent Karri Forests in the southern forest region. A significant reduction in the amount of hazard reduction prescribed burning over the last twenty to twenty five years by the Department of Conservation and Land Management, has resulted in the majority of these forests carrying far more ground fuels than is desirable for realistic control of wildfires. There are usually over 6 days every summer when "blow up" fire danger days occur – with strong dry winds, high temperatures, and low atmospheric and ground fuel moistures. This means that immediate suppression of wildfires is humanly impossible, no matter what resources are available.

The current shocking wildfires (many of them deliberately lit by arsonists) in New South Wales, are generally burning in open forests or woodlands and carrying far less fuel than those in W.A.'s Karri and associated jarrah forests. Accordingly, karri fires may burn at far greater (perhaps 20 times) the intensity (heat generation) than those in the areas currently burning around Sydney. Therefore the amount of damage to environmental and commercial values, private properties, other state assets and plantations from a single or multiple fire events here is likely to be correspondingly higher. The cost of suppression (including post fire rehabilitation) will also be exceedingly high.

At the same time, because of a (rapidly) likely serious shortage of qualified and experienced fire fighters, together with far less appropriate heavy machinery and operators (because of the decline of the timber industry), the chances of larger (or massive) wildfires is increasing. It is no exaggeration to say that a single fire event in the karri and adjacent jarrah forests in extreme fire weather could easily top \$10,000,000 in monetary values alone. **There is also a strong possibility of loss of fire fighters lives**, for various reasons.

The major problem for wildfire suppression managers, besides the above, is manifold. Firstly lack of low fuel (recently burnt areas) into which to guide and hold fast moving wildfires, heavy fuels which reduce suppression speed, and increase the risk of an escape, long distance hopovers (up to 7 kilometres), private property assets interspersed throughout the forest area, poor access (untrafficable bridges and overgrown roads). The biggest problem though is safety of fire fighters. With duty of care, a manager cannot send fire fighters into an area that is potentially unsafe. Fire fighters may also refuse to enter hazardous situations as conditions change, so the fire may run for many kilometres for one or more days without direct suppression, consuming and destroying every thing in its path. (A major fire in 1937 burnt from near Boyup Brook to Walpole).

Increasing numbers of 4 wheel drive vehicles, and people recreating in southern forests during the summer months cause extra problems for fire managers who have the additional responsibility of locating (which is time consuming, difficult, and uses additional staff), warning and evacuating these people during wildfire events.

Aggravating the situation from a fire protection perspective is the fact that there are large areas of established karri and jarrah regeneration that cannot be prescribed burnt until they are of sufficient size to withstand fire (approximately 25 years for karri and 16 for jarrah). Ideally the karri should be thinned say 2 years before this time to utilise the smaller material, and reduce the fire intensity when burnt. If the area is not thinned beforehand, the burn becomes very difficult, costly, and greatly increases the risk of damage to the stand. We owe it to our future generations to ensure that this

regeneration is available for them to manage and utilise as they see fit. A dollar spent now to protect these areas will be returned 50 fold in years to come.

Whilst the injection of additional money for CALM's suppression budget is welcome, it is being directed in wrong direction. It should be being used to maximise areas of prescribed burning as this is far more cost effective and less damaging than wild fire. As an example, last summers 3000 hectare wildfire in the Nuyts Wilderness area at Walpole cost CALM around \$350,000 to suppress, when the same area could have been prescribed burnt for around \$10,000. In that fire some 100 quokkas and possibly the same amount of kangaroos were trapped and burnt to death plus other wildlife. That same fire could just as easily not been contained and run for another 20 or 30 kilometres along the coast if strong winds (which are normal on that part of the coast) had occurred. What would the cost have been then?

Water bombers would not be effective with karri fires (except possibly in the initial development phase) because of the high heat generation and high canopy of the trees. In multiple fire situations (such as lightning storms –which happen frequently) or escapes from live prescribed burns (which happens occasionally if strong and unpredicted winds occur), the situation is exacerbated if backup by CALM crews from other areas are not available because of their own fire suppression obligations. The time lapse with the arrival of outside crews is also a serious problem in the early stages of fire development as fires may burn for 6 or more hours without attack. In some situations if resources are not readily available.

**CALM is charged with the safeguarding the forest and environment under its control, so what has caused this serious situation to occur?**

- Too many constraints on prescribed burning. The total avoidance of smoke over the Perth metropolitan area from prescribed burning one the biggest restrictions CALM faces. It is frustrating to have perfect conditions for burning one day only to have a request for burning rejected because of smoke accumulation conditions over Perth), then have to undertake the burns the next day when conditions are nowhere as suitable, with all the increased risks of an escape because of the wind direction.
- Burning with heavy fuels adjacent increases the chances of an escape, so more preparation and care needs to be exercised, therefore increasing costs.
- As CALM is given more and more estate throughout the state (particularly in the form of National Parks), usually without additional budgets, so fire crews from the forest regions are directed to suppress fire elsewhere. Crews travel to places such as Jurien, Perth, Albany, Esperance, Kalgoorlie etc. When this occurs, burning is suspended (often when conditions to burn in Karri forests are ideal) until crews return, or backup crews from other centres are available.
- Many burns (especially for silvicultural purposes) have become smaller and more numerous (and costlier) which reduces annual burning productivity.
- CALM managerial staff have many other duties and obligations besides fire (recreation development, conservation projects) and have difficulty satisfying all responsibilities adequately because of high workloads.
- CALM budgets have effectively been reduced over the years with reduced or maintained allocations which do not account for CPI increases over time. Insufficient finance is often not available for road maintenance or bridgework to ensure adequate access requirements for management purposes.
- There are effectively less personnel in fire crews available for prescribed burning due to other obligation such as machine operating or recreation facilities work. Much of this work can only be done in the drier summer months, which conflicts with

burning operations. Wages staff numbers have been reduced by ~40% over the last 20 years.

**So what needs to be done to resolve this situation?**

- The State Government should publicly affirm its strong support for prescribed burning and direct CALM to maximise burning as a cost effective way of protecting and maintaining environmental and other values, and minimising the potential for large scale devastating wildfires. Additional funding should be allocated to ensure this objective is met. Failure by CALM to achieve a satisfactory level of protection may lead it (and ultimately the Government) open to legal claims if properties are burnt as a result of not meeting their protection targets. Should a fire fighter be killed as a result of working in an unsafe environment, similar claims could be pursued also.
- The public's attitude to prescribed burning needs to change, to one of support for hazard reduction prescribed burning. Ideally, whenever they see smoke (from burns) they should think "Good, CALM is protecting our forests (and animals) from wildfires". In 18 years as Regional Fire Officer, I only had 3 complaints regarding smoke from prescribed burns (all from new arrivals to the south west!!) yet I have seen towns like Manjimup and Pemberton frequently blanketed in smoke with visibility down to 100 metres with no complaint. They understand the need for burning and protecting the forest and their towns and farms. City people need to be more tolerant of smoke. Asthmatics and other people with genuine respiratory complaints may need to be given protective equipment, but this is a small price to pay to ensure protection of the forests. Regular burns are also needed to provide fauna such as wallabies with food.
- Allow for increased levels of smoke over Perth and other major centres. Even Sydney (after the 1995 fires) has legislation to allow for the completion of part completed burns or initiate essential burns if no other options exist. The most stable and suitable winds for burning in W.A are from the southeast, which unfortunately (occasionally) causes smoke haze over Perth. To require burns to be conducted with winds other than those suitable puts more pressure on staff and crews, and greatly increases the risk of an escape. It is crucial that this constraint is removed to allow CALM to utilise suitable weather for burning, when it occurs.
- Significantly increase funding for additional (part time if necessary) fire crew members (there are plenty of timber workers currently available), equipment, and aircraft hire for prescribed burning operation and fire suppression operations. CALM fire fighters normally work twelve hour shifts (far greater than other government firefighters). In the near future, in multiple fire situations throughout the state, there is very likely to be a serious shortage of experienced CALM fire fighters to allow two fully serviced shifts per day to operate. Very few bushfire brigade personnel are qualified or experienced to operate in forest fire situations, and therefore could only be used in support roles away from the fire face.
- CALM should purchase additional suitable heavy machinery for operated by experienced CALM personnel. In times of bushfire crisis the availability of alternative suitable machinery cannot be guaranteed - without it huge financial losses will occur, far more than the cost of one new machine. Experienced operators employed by timber companies have already stated that they will refuse to operate their machines on fire suppression (unless life is threatened) as a protest at their loss of employment in the timber industry because of the new labour governments forest policy.
- There needs to be improved formal coordination and planning between CALM, Bush Fire Services, and Local Government for hazard reduction burning. Currently CALM works alone in planning its burns, but will incorporate private forests into its

burns it suits. The Local Authority, assisted by Bush Fire Services should determine both long and short term strategic fuel reduction burning programmes on both CALM lands and private property simultaneously if possible.

- Local Authorities need to strongly enforce the Bush Fires Act on private forests or vegetated areas within their jurisdiction. Currently this is not being done which not only makes CALM fire suppression efforts more difficult, but increases the risk of escapes into private property whilst conducting their prescribed burns. Many properties are owned by non resident people who have no idea of the threat their property is presenting fire fighters. There are several towns in the southwest that are currently extremely vulnerable should a bushfire occur because of heavy fuels on private property and shire reserves (including roadsides). To safeguard themselves, brigade members should inspect any potentially hazardous property and if unsafe during a fire emergency, advise the owner (and shire, and insurance companies) that they will refuse to enter the property during a fire situation.
- The media need to be more sympathetic in reporting smoke over the city, or escapes from burns, especially before interviewing non accountable people from the conservation movement who see themselves as experts in all subjects, and the elected spokespeople for the entire population.
- A more balanced approach to the issue of prescribed burning needs to be presented in schools and tertiary institutions. Currently environmental academics and school teachers are presenting a strong anti burning argument to students without regard to the alternatives. CALM needs to run in-field information seminars for educators (and the media) to ensure that there is some balance to the debate.
- Ex CALM officers working for the Forests Products Commission experienced in karri fire management, likely to be transferred to other centres because of cutbacks to staff numbers should remain in this area, or be reinstated into CALM to ensure sufficient staff are available for prescribed burning and fire suppression duties. As a result of the split of CALM, there are now insufficient staff available to service fire suppression activities. Existing staff will have to undertake additional detention and duties to cover this shortfall causing additional stress to themselves and their families.
- Older karri regeneration of sufficient size needs to be thinned as soon as possible to allow it to be prescribed burnt.

Even with good planning and intentions, it will take several years of concerted effort to reverse the current situation and make the karri forest comparatively safe from wildfire threat. Unless this is done however, there will eventually and unfortunately be one tragic outcome. We don't need yet another Royal Commission after a major fire to tell us what we already know.

Prescribed burning is the only realistic broad scale way to protect the forest and other environments and fauna from devastating wildfires. Surely it is far better to decide in advance the specific weather and other conditions are required and prescribe burn it accordingly, than wait for the inevitable wildfire and attempt contain it with large bulldozers, whilst damaging the environment and risking peoples lives and property. After the Brockman National Park Fire in 1983, over 35% of the mature karri trees died and the remainder were seriously damaged. Surely we don't want this to occur again over large tracts of our forests?

*It is a very simple and clear choice – prescribed burning or devastating bushfires.*

John Evans, Pemberton, 30 December 2001. Phone 97 761 473.



*John Evans recently retired from CALM after nearly 40 years service in various centres around the Southwest. For 11 years he was a District Fire Officer at Kirup and Pemberton, then served for 18 years as Regional Fire Officer, based at Manjimup. He has extensive Karri forest fire behaviour and management experience.*

## COMMENTS – NEW FOREST MANAGEMENT PLAN

### There currently exists a significant threat to the Karri forest from wildfire.

The new Forest Management Plan **must** accelerate a strategic bush fire protection programme for the Karri (and associated Jarrah forests) in the Southern Forest Region as a matter of **top priority**.

The current fuel levels, because of a reduction in prescribed burning over the past ten years in particular – for various reasons-, are very high across a large proportion of the above area. Without a substantial and immediate increase in strategically sited fuel reduction prescribed burning, massive and destructive wildfires **will** occur because

1. the fires will be **intensely hot and fast moving**,
2. there are less experienced staff and crews, especially since experienced machine operators are being retrenched from the timber industry,
3. there will be nowhere for fire suppression managers to guide wildfires into and possibly contain them there.

Under certain conditions (which occur perhaps ten times each summer) these fires **will** kill many of the mature karri trees in their path (perhaps 30% as happened in the 1983 fire in Brockman National Park), **will** kill native fauna, **will** cause significant long term environmental damage, **will** pose a significant risk to fire fighters lives, **will** be very expensive to suppress, **will** destroy many private and public assets (with probable substantial subsequent damages claims), and **will** destroy the asset base (karri and jarrah regrowth) for a future timber industry and for future generations use.

**WITHOUT SUBSTANTIAL AND IMMEDIATE ACTION MAJOR WILDFIRES WILL OCCUR. EVERY YEAR THAT PASSES WITHOUT THIS HAPPENING INCREASES THE RISK OF A MAJOR FIRE THE FOLLOWING YEAR BECAUSE OF INCREASED FUEL LEVELS.**

To implement such a programme, the following is required –

1. Additional full time or seasonal fire crew members need to be appointed, for a minimum three year term, with adequate training funds.
2. The Department of Conservations prescribed burning budget needs to be increased to allow for additional burning, including funds for extra ignition helicopter hire.
3. Additional budgets are required to maintain and improve strategic access in forests, including funds for bridge replacement.
4. Current constraints on prescribed burning, including allowing for some additional smoke over the Perth metro area on odd occasions, need to be relaxed.
5. Older Karri regrowth areas in strategically important areas need to be thinned, as a matter of priority, to allow for prescribed burning within two years of that occurring.

I believe I speak with some authority on this subject as I have recently retired from the Department of Conservation and Land Management after 40 years service, 27 years of which were as District and Regional Fire Officer. The majority of this time I have specialised in fire management in the Karri and adjacent Jarrah Forests within the Southern Forest Region. I would urge the Commission to obtain a detailed briefing from CALMfire to check the situation for themselves.

John Evans, Pemberton, 24 August 2001.