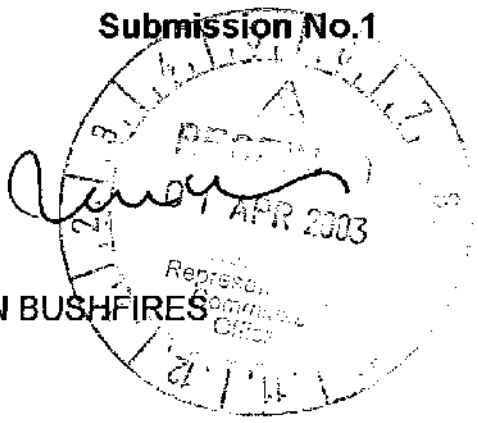
Submission No.1



The Secretary:
HOUSE OF REPRESENTATIVES
SELECT COMMITTEE ON THE RECENT AUSTRALIAN BUSHFIRES

Inquiry into the Incidence and impact of bushfires.

I wish to submit the following submission to the above Inquiry, and I thank the Committee for the opportunity. This submission is an individual, personal submission, although I am currently a Chief Bush Fire Control Officer for an outer metropolitan local government. I have twenty-five years experience in dealing with bush fire planning, mitigation and incidents in forest, agricultural, and urban interface environments throughout the southwest portion of the State of Western Australia.

I currently have responsibility for the management of 10 volunteer brigades with an active membership of 320 personnel. I have fire prevention and preparedness responsibilities for an area of 644 square kilometres 1/3 of which is naturally vegetated with national parks, state forest and reserves.

Terms of reference:
(a) the extent and impact of bushfires on the environment, private and public assets and local communities.

I believe the committee should have regard to the Intensity of bushfires in this context. The intensity of a bushfire is calculated approximately by the equation:

Intensity I, (kiloWatts/hour/metre of flame) = [ROS (forward rate of spread) x Fuel load (tonnes/ha)] / 2.

i.e. I = ½ [ROS x Fuel]

- Direct attack on a bushfire using handtools will fail above approximately 800kW/m.
- Direct attack using machinery and heavy appliances (including airborne appliances) will fail at above approximately 3,000kW/m.

Incidents above 3,000 kW/m will likely cause damage to structures and injury to personnel and disrupt public infrastructure such as power and water distribution and communications links.

The only potential to alter the intensity of a bushfire lies with altering the fuel load.

(b) the cause 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.

A common viewpoint of many Australians in regard to fire arises from a European culture. That is, that no fire can be good for the environment or communities. This perspective has gained political credence in recent times, particularly with "green" and environmental groups.

As a result, the agencies responsible for managing public land have been constrained in managing fuel loads through hazard reduction or prescribed burning. This has been compounded by reductions in personnel in those agencies with the consequent loss of expertise and history in managing fuel loads and with fire in general. This has been achieved by lobbying against organisations such the Department of Conservation and Land Management (WA) and attacking the organisations credibility.

The overall consequence is an increase in fire intensity when fires do occur.

Many groups have sought to restrict burning practices by utilising an environmental health argument. (Perth's Air Quality Management Plan, Department of Environmental Protection, 2002.) Development of such plans ignores the injurious effect of intense bushfires. The injurious consequences of severe bushfires should also be into discussion of such health based plans.

RECOMMENDATION:
That Government Policy should, in my opinion, reflect a true association of fire in the Australian landscape, not one based on historical European attitudes.

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

Bushfire prevention.
Agencies responsible for the distribution of power, earning their income from that distribution, should accept full responsibility for the maintenance of that distribution network. Such maintenance should include the cost on installing

cables underground, bundling aerial cables and maintenance of vegetation near overhead powerlines. This will effectively ensure the economic return for the distribution networks and prevent the occurrence of many bush fires.

Hazard reduction burning remains the only economically viable and environmentally acceptable method of reducing fuel loads at a broad scale. (NB burning will not necessarily prevent bush fires, but will reduce the consequent severity.

Every homeowner should ensure that their own property is sufficiently prepared to survive a bush fire. This is particularly true where the home is situated close to naturally vegetated areas. If a fire occurs, the public land manager will accept responsibility for the assets on their land, and the homeowner for theirs. Should a bushfire cross a boundary, each accepts responsibility for their own property regardless of the source or location of the ignition.

Airborne appliances are responsible for saving many assets and homes during bush fire incidents. Much of the financial liability for those assets is borne by Insurance organisations.

RECOMMENDATION:
That as a beneficiary of the protection of those assets by airborne appliances, the Insurance Council of Australia should "sponsor" the operation of those appliances across Australia.

(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 impact of such policies and practices.

Reduction of fire intensity through prescribed or hazard reduction burning remains the only viable broad-scale land management option. Project Vesta (Cheney 2001) indicates that high rates of spread can still be achieved in adverse weather conditions. Reduction of fuel load will reduce fire intensity. However, narrow buffer burns will only serve to reduce intensity for the area of that buffer. Consequently intensity will increase should a bushfire cross that buffer, possibly leading to damage of assets adjacent to the area of the fire incident.

(e) any alternative or developmental bushfire mitigation approaches, and the appropriate direction of research into bushfire mitigation.

This reference is fully supported and in the opinion of this author should be coordinated through the Australasian Fire Authorities Council.

(f) the appropriateness of existing planning and building codes, particularly with respect to urban design and land use planning, in protecting life and property from bushfires.

The current codes and regulations appear to be adequate. However, the behaviour of the community does not reflect the intent of the regulations. Culturally, many residents will try to "get away" with as much as possible to reduce personal financial impact. Although the planning regimes are adequate, people do not generally react well to the stress of a bush fire incident, and consequently do not afford themselves of a well-designed property or community. It is my experience in managing incidents that many residents who are not at home at the time of a bushfire will attempt to gain access to their homes through a dangerous situation. Commonly the comment is: "If my house burns down, you are responsible".

Not all solutions are able to be achieved by engineering. Behavioural solutions will be more effective in the long term.

RECOMMENDATION:
that research into community behaviour be undertaken to seek programmes which will modify community behaviour in times of bushfire incidents.

(g) the adequacy of current response arrangements for firefighting.

In Western Australia, outside gazetted fire districts, local government establishes, maintains and supports volunteer brigades for response to bush fires. This in effect creates in excess of **140** fire agencies!

Each local government will have its policies, Standing Operating Procedures, and reporting protocols creating a non standard response environment. An indication of this is where many fire appliances, on turn out, resort to the use of local government radio channels. These are unable to be monitored by neighbouring resources or by a central agency. This can lead to confusion in command and control when multiple appliances are required.

RECOMMENDATION:
That local governments should retain control of fire prevention and preparedness as is currently described in the Bush Fires Act 1954. However all community bush fire response should be supported, financed, managed and facilitated by a single State government agency.

The nature of the current volunteer base indicates that it is currently difficult to obtain resources during normal business hours. This is due to employment

commitments of many volunteers. That employment may also occur outside of the fire district causing a delay in crew response.

When a bushfire occurs in a gazetted fire district, a response is generated by career Fire Services brigades/stations. If that station is already deployed at another incident the response will again fall to the next nearest career brigade. The second brigade may in fact be further away from the incident than the nearest volunteer resource. If a single agency coordinated all resources and responses, the volunteer brigades may provide a more effective response. It is believed that the Australian Firefighter's Union will not allow volunteers to provide an initial response in a gazetted district. This may expose the community to risk when multiple incidents occur inside a gazetted district. In the opinion of this author, **RECOMMENDATION:**
the nearest appropriate brigade should provide the initial response regardless of the location of the incident.

(h) the adequacy of deployment of firefighting resources including an examination of the efficiency and effectiveness of resources sharing between agencies and jurisdictions.

In Western Australia, some officers of the Fire and Rescue Service do not understand the principles of the AIIMS ICS system. As such many incidents are under resourced due to a failure to recognise the expertise and competence of personnel from other agencies. Subsequently, support is not sought from neighbouring jurisdictions or agencies. The culture of the Fire and Rescue Service needs to change to recognise the competence of other individuals and agencies.

(i) liability, insurance coverage and related matters.

No comment except for (c) above.

(j) the roles and contributions of volunteers, including current management practices and future trends, taking into account changing social and economic factors.

No comment except for (g) above.

General Comment;

- Much of the funding and sponsorship for volunteer fire services ends up with the provision of equipment and appliances. This is because there is a tangible outcome when funds are provided for such items. Rigorous research in to the causes and effects of resources will ultimately provide better protection for our communities by reducing the occurrence and severity of bushfires.

- Focussing on career (metropolitan) fire services is unsustainable economically. Support for a large competent volunteer base through a single State government agency will ultimately provide for the best response component of bushfire management.

- The Committee may however wish to explore the option of having a small core of seasonal firefighters in each district, utilising volunteer appliances for an initial rapid response strike team to bushfire incidents.

- The Committee may also wish to explore the provision of "Professional" incident management teams within each state. These teams could establish early initial structures to ensure efficient incident management. The control of the incident could subsequently be handed back to the appropriate jurisdiction when sufficient resources become available.

- The Committee may wish to undertake to reverse the trend of downsizing land management agencies and the subsequent loss of expertise and resources that serve to protect our communities.

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