

## Submission to Waroona Bushfire Special Inquiry

Submitted By: [REDACTED]

Date: 29 February 2016

Mr Euan Ferguson, AFSM

Special Inquirer

Waroona Bushfire

Via Email: [WaroonaInquiry@semc.wa.gov.au](mailto:WaroonaInquiry@semc.wa.gov.au)

Dear Mr Ferguson

Firstly let me express my gratitude for being given the opportunity to contribute to this important inquiry into the recent fires that affected the Shires of Waroona and Harvey and severely impacted the town of Yarloop.

My submission is based on the experience and knowledge gained in my 44 year career with the Forests Department and Conservation and Land Management as a Forester based in the South West region of Western Australia. During this time I was directly involved with all aspects of fire prevention and suppression, including on-line fire fighter to fire boss. In the last 20 years of my career I specialised in Fire Management, which included training, development of fire equipment and the implementation of fire control operations across the Jarrah and Karri forests of the South West and other CALM managed land throughout the state. A particular circumstance that influences my comments in this submission was my involvement in the Dwellingup Fire of January 1961 and the subsequent Royal Commission.

The Royal Commission held into the Dwellingup Fire had similar terms of reference to this inquiry you are heading and with findings that, in my view, are still entirely relevant today.

In January 1961 the Western Australian Government and community were caught out by a lack of anticipation that a fire of the magnitude that eventuated was possible. In the current inquiry one of the terms of reference is: *The effectiveness of pre-incident bushfire prevention and mitigation activities*. Prior to 1961, prevention and mitigation was practised around assets throughout the south-west forests. There was one significant gap in the fire strategy - a lack of broad scale fuel reduction which led to high fuel loads. This meant that when fires started it was beyond the capacity of firefighting resources to effectively tackle them. Over a period of five days in January 1961, with severe weather conditions very much like that experienced at Waroona in January 2016, lightning caused fires ran at an almost unstoppable pace due to strong winds and the heavy fuels that lay ahead of the bushfire.

Much has changed in the south west of Western Australia in 55 years since the Dwellingup fire however one constant factor remains. That is the general climatic conditions that make hot, dry summers entirely predictable and the inevitability of fires commencing though lightning and human causes. So why, you might ask, was there three decades of almost no large fires in the northern Jarrah forest from the 1970's to the late 1990's?

During this time a large bushfire in the northern Jarrah forest was considered by fire professionals to be one that reached over 1,000 hectares. The Driver Road fire of 1988, which burnt in almost the same place as the Waroona fire started in Lane Poole Reserve this year, reached 1,500 hectares. At that time the Driver Road fire was one of the largest fires since the Dwellingup Fire in 1961, when over 100,000 hectares burnt. Bushfire suppression during this period was carried out entirely by ground crews. The assistance of water bombing aircraft was not available.

Since the 1990's there has been an alarming decline in the amount of hazard reduction burning in the forest and in particular both crown and private land in and around townsites.

From the early 2000's large uncontrollable wildfires, burning in heavy fuels have become a regular occurrence in the northern Jarrah forest and adjoining areas including:

- Mt Cooke fire of 2002 – over 40,000 hectares
- Perth Hills fire of 2005 – over 40,000 hectares
- Dwellingup fire of 2007 – over 10,000 hectares
- Willowdale fire of 2007 – over 10,000 hectares
- Hotham fire of 2013 – over 50,000 hectares.

The trend of large fires occurring more frequently is evident even though more resources including an increasing number of water bombing aircraft are employed.

It is worth casting our minds back to the Royal Commission that followed the Dwellingup fire. The findings included a recommendation to improve *pre-incident bushfire prevention and mitigation*, or words' to that effect recognising that prior to the Dwellingup fire, the hazard reduction burning program (hand burning) was insufficient to make the task of controlling the inevitable wild fires much easier.

At Yarloop in January this year, fire crews were faced with the enormously difficult task of suppressing fires in heavy fuel loads with a head fire bearing down on the tinder dry town. Roadside vegetation and crown land, unburnt for 20 or more years, vacant town site land with dry grass, weeds and leaf litter unaltered by any form of bushfire

mitigation in the preceding spring provided the perfect scenario for a disastrous result when the fire front hit the town. The tragedy of this situation is that as preventable as it was, the same situation exists in Jarrahdale, Dwellingup, Greenbushes, Margaret River and almost every town and settlement in between. The lack of bushfire prevention and mitigation makes a repeat of the Yarloop tragedy almost inevitable.

There is however one outstanding example of a community taking bushfire prevention and mitigation seriously and resisting all of the negative pressures to wind down their activities. This is the town site of Allanson.

In many ways Allanson is similar to Yarloop being a semi-rural community with retired and lifestyle residents surrounded by farms, forests and road reserves. Yarloop and surrounding farms were ill prepared for fire, with forests and crown land containing heavy fuel loads, its road reserves were long unburnt and assets were generally vulnerable and not defensible. In contrast, the Allanson community has recognised the situation and have developed a plan to address bushfire risk. The town has communicated and implemented a community protection plan based on bushfire prevention that includes a foundation of hazard reduction burning.

The one exception in Yarloop where a facility was well-prepared is the local Primary School. Despite being located in the middle of town, surrounded by homes and the historic Yarloop Workshops that were destroyed, the Primary School remains standing after the fire. Although unattended as the fire passed and consumed the neighbouring buildings, the school survived the inferno. This was due to the Fire Protection Plan developed by a local fire expert which was diligently implemented by the Yarloop Primary School Principal. Of course, the plan included fuel reduction and separation of buildings from vegetation. Had such a plan been developed and implemented for the entire Yarloop town site, so much of the devastation of January 2016 would have likely been prevented.

Fire can be devastating at the wrong time, in the wrong place and at the wrong intensity. It can also be a very useful tool for managers who seek to reduce bushfire risk. Past history of limiting large fires through hazard reduction burning is testimony to this fact. The more recent history of reduced hazard reduction burning coincides with increased fire size and frequency.

The use of fire as a tool needs to be re-introduced into modern management as it was following the recommendations of the Royal Commission into the Dwellingup fires of 1961. Following the 1961 fires, the Forest Department, where I worked as a forester, embarked on a revised program of using controlled fire as a means of reducing bushfire risk. This included developing aerial ignition techniques which are now widely used across Australia. The success of the broad scale aerial burn program reduced the risk of large fires occurring in the northern Jarrah forest as can be seen from the lack of large scale fires from the 1970's to the late 1990's.

The Cyclone Alby fires of April 1978 are an excellent example of the value of fuel reduction in mitigating bushfire risk. In this incident approximately 90 fires started which were driven by winds exceeding 120 km per hour. Fuels in the forest and farmlands were still extremely dry. The extent of fires was beyond the initial capacity of firefighting crews to handle. Top priority had to be the protection of life and property. Hence most fires were left to burn as they were in light fuels as a result of hazard reduction burning in the previous four years.

In some cases it was several days before suppression action could be taken. This was only made possible by the large strategic areas of fuel reduction in the forest. Several towns were under direct threat during the critical stage. There can be no doubt that loss of life and property damage would have been high had it not been for broad area hazard reduction.

Unfortunately, pressure from environmental groups, public opinion, resulting policy changes and shifting resources has since led to a decline in fuel reduction particularly around town sites. There are a number of factors that have contributed to this decline.

Firstly, in regard to Yarloop, there was almost no fuel reduction on private land within the town site. In the 1970s it was commonplace for volunteer bushfire brigades to burn vacant land on behalf of absentee owners in return for funds which were directed into brigade budgets. Change of policy has led to the cessation of this practice. Vacant land within town sites contain heavy fuel load whilst complying with local laws that require a narrow mineral earth perimeter firebreak which of course is completely ineffective in the event of a high intensity bushfire.

Secondly, road reserves in rural south west Western Australia were traditionally burnt at regular, frequent intervals by adjacent landowners as a means of reducing bushfire risk. The threat of prosecution by local authorities has led to the cessation of this once widespread practice with no effective bushfire risk reduction activity taking its place.

Thirdly, local government is responsible for Shire land which, as was evident in Yarloop, is not included in any systematic fuel reduction program. Local governments are generally underfunded for the broad range of activities for which they are responsible leading to bushfire risk reduction being inadequately addressed. The only course of action left to local government is to be well prepared for bushfire response. When a fire of similar intensity to that of January 2016 occurs, response mechanisms are found to be hopelessly inadequate; unless, like in Allanson, appropriate bushfire prevention has been taken well beforehand. Hazard reduction burning of small areas in and around townsites provides an ideal training ground for volunteer fire crews.

The situation I have described is not intended to convey criticism of those who are charged with the responsibility of protecting communities from fire and the many volunteers who give time and effort towards this endeavour. On the contrary I am impressed with the efforts many provide however it is saddening to see that this effort is largely wasted when the inevitable ignition of fire occurs under severe weather conditions. It is the legislative and policy settings that must change to enable south

west Western Australian communities to be protectable in the event of bushfire. The current arrangements are arguably workable; however the complete failure of these arrangements to prevent the Yarloop tragedy shows that the current system is not working.

In Western Australia's parks and reserves there is a regular program of risk assessment and bushfire risk reduction through a range of means including a solid base of hazard reduction burning. The same is required for those areas of farmland, road reserves, private land and local government land if the lessons from the Waroona fires and others are to be learned.

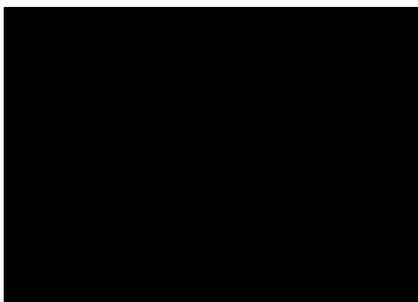
One way of achieving this would be to create a rural fire authority that combined all of the non-metropolitan resources of the Department of Fire and Emergency Services with Local Government rural fire resources. This authority would need to be mandated to replicate the Department of Parks and Wildlife's objectives in bushfire risk reduction so as to be able to address the widespread and huge issues of bushfire risk facing rural communities.

It is only through this rather fundamental return to fuel reduction that Western Australia can possibly avoid numerous repeats of the situation that occurred in Yarloop in January 2016.

I sincerely hope you are able to incorporate my comments into the Waroona Bushfire Special Inquiry recommendations.

I am available to meet with you if you think this would be worthwhile.

Yours faithfully

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Contact Phone: 