**Submission No 90**

# INQUIRY INTO EMERGENCY SERVICES AGENCIES

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22nd July 2017
The Hon. Robert Borsak, MLC
Chairman
Portfolio Committee No.4
Inquiry into emergency services agencies

Submission (18 pages)

# e) THE RELOCATION OF THE NSW RFS HEADQUARTERS TO ORANGE, DUBBO OR PARKES

The relocation of the RFS headquarters to a rural regional centre is essential if the RFS is to assiduously fulfill its responsibility of statewide fire management.

It seems incomprehensible that a Rural organization, the Rural Fire Service has been city based since its inception 20 years ago.
Moving the headquarters to its rightful place, a Rural location just makes sense.

The benefits of the move are almost too numerous to list, but include;

- Consistent with the Governments commitment to decentralize
  - Numerous government agencies have been decentralized with great success.
  - The State Emergency Service (SES), like the RFS deal with State wide emergencies. If the SES head office can work efficiently from a decentralised location, so could the RFS.
- Would position the RFS within its main geographical area of responsibility
- Would offer location stability, as this is the headquarters third move in 20yrs
- Produce superior environmental outcomes
- Stimulate regional development
- Help relieve city congestion
- Orange, Dubbo and Parkes councils have all expressed interest in having the RFS headquarters moved to their area
  - Dubbo council have offered land adjoining the airport
- Is supported by the NSW Farmers Association
- Is cost effective

**But the biggest and most important reason for having the headquarters moved is that it will create cultural change within the organization.**

The current system is NOT working.

NSW is having larger, more devastating and more frequent fires despite millions and millions of tax payers' dollars being allocated to the RFS and fire suppression.

I and many of my fellow volunteer fire fighters believe this is due to a city centric organization that is out of touch.

I have been a volunteer grass roots fire fighter for the last 49 years. Captain of my Brigade for the last 33 years. And together with my immediate family have dedicated 144 years to bush fire prevention and management.

I have had experience with the previous local government based system (29 years) and the current city based RFS system (20 years).
In all my years of service I have never been more concerned for the safety of my community than I am today.
Under the current city based system our Brigade has lost the ability to keep our community and environment safe from wildfire.
Over decades the Kurrajong Heights Brigade has developed a Risk Management Plan. Through no fault of the Brigade or our local RFS District Office, we are now unable to implement that plan due to bureaucratic interference.
To give you some background, Kurrajong Heights sits on top of a mountain range with close to three quarters of a million hectares of Blue Mountains and Wollemi National Parks surrounding.
This means we are an extreme fire risk area.
An effective Risk Management Plan is essential. It was planned and implemented at the local level and evolved from the accumulated experiences of locals and observation of fire behaviour in the local region.
The plan involves cool weather hazard reduction using a mosaic zoning approach.
To be successful the hazard reductions must take place as per the plan, otherwise the plan will fail.
The Brigade has the enviable record of having no loss of life or home to a bushfire event in its 65 years history.
But I fear now that it's only a matter of time.
(The Kurrajong Heights Risk Management Plan is detailed in Appendix A)

On any bad fire day Kurrajong Heights could now have a catastrophic fire event which could result in significant property loss and loss of human life.
Prior to the city based RFS being formed our Brigade was prescription burning on a 7 to 8 year cycle. Now only 20 years later, we now have a great deal of 16+ year old fuels.
To a non-fire fighter this may not seem to be a big deal, going from 7 years to 16+ years.
But the difference is significant.
Fuel is the major contributing factor to fire intensity.

In the Australian bush fuel builds up at an average of 2 tonnes per hectare per year.
A fuel load of 7.5 tonnes per hectare is easily managed as it produces 300kw of energy per meter of fire front.
Increase the fuel load x4 to 30 tonnes per hectare and the fire intensity is increased by over 17 times to an uncontrollable wildfire.
Remember that 30 tonnes of fuel accumulates in 15 years and we now have significant areas at Kurrajong Heights with over 16 year old fuels.

Recent wildfires are now producing energy levels of up to 100,000kw per meter of fire front, with devastation potential that rivals that of a nuclear blast.
These fires can not be put out by man or machine. The only way they are extinguished is by rain or the removal of fuel.
A major wildfire destroys everything in its path. It burns soil, it explodes rocks and creates conditions for an enormous loss of topsoil and humus. The silt run off after rain finds its way into gullies and creeks and rivers adding to the environmental damage. After a wildfire a thunderstorm can remove up to 2,000 years of topsoil build up.
It is our experience that areas that have been repeatedly subject to wildfire showed dramatic loss in the bio-diversity of flora and fauna.

When the formation of the RFS was first being discussed, Brigades were told that having a dedicated central headquarters would offer us greater support and assistance in carrying out our role.
History has contradicted this.
We now spend most of our time reacting to fire - at an enormous financial, environmental and human cost.
Prior to the city based RFS, the primary focus was the prevention of wildfire.

The prevention of fire was achieved at the local level with each Brigade responsible for planning and implementing strategy/s specific to their local needs.
Now Brigades are faced with complicated, time consuming red tape that prohibits effective fire management strategies to be implemented.
Consequently fuel loads continue to grow to unmanageable levels.

After the Black Saturday fire, which killed 173 people and burnt 450,000 hectares, the Victorian Royal Commission recommended that a minimum of 5% of fire prone land be treated annually.
Australia's two leading bush fire scientists Phil Cheney and David Packham, recommend that 8% of fire prone lands be treated annually.
In recent years NSW has been treating an average of LESS than 1% of fire prone land annually. It's not hard to see why NSW is having larger, more devastating and more frequent fires.
Perhaps a question for the panel is why aren't these benchmarks being met?

Who is accountable for allowing the state to burn?
Why is no one responsible?

NSW has over 2,100 Brigades.
If each Brigade was returned the authority to implement their risk management plans communities and the environment would be much safer.
Volunteers, which make up over 98% of the Service need a greater voice in fire mitigation practices that directly affect them.

Volunteers want to be part of the solution, but they feel that they aren't being heard.
This is not a new problem. October 2003 A Nation Charred: Inquiry into the Recent Australian Bushfires, the panel observed "local knowledge and experience was ignored or not sort. Volunteers are feeling marginalised".
Having a city based organisation that dictates how local fire experts manage their land seems incomprehensible.

But perhaps the most disappointing aspect is that experienced, knowledgeable grass root volunteer fire fighters are leaving the Service.
Their reasons are many, but include;
- Fear of being in charge and having people killed due to unstoppable fire due to excessive fuel loads
- Bullying
- Lack of respect by city based personnel
- The dictorial nature of the RFS head office

The RFS is loosing irreplaceable knowledge.
It is the local grass root firefighter that knows their own local area.
They know their infrastructure, community, terrain, fire behaviour within their terrain and how best to manage any fire.
No amount of training can replace years of local fire ground experience, knowledge and expertise.
The local expert is not doing it for money. They risk their life for their family, their community and their environment.

The danger is that if this city centric based organization is allowed to continue, the volunteers will continue to leave.
As recorded in the RFS 2015/2016 Annual Report, there has been a decline in numbers of 1,354 from the previous year.
And this is despite a concerted recruitment campaign.
The RFS website claims to have 73,000 volunteers. I seriously question this figure.
The panel should confirm with the Commissioner how many of its members are qualified to get on a truck and go to a fire.

Once the volunteers are gone, the Service will have to be fully funded by the state.
If the Service had to pay 20,000 personnel at $70,000 per year, it would equate to $1,400,000,000 per annum.
That's on top of the roughly $361,000,000 that's already paid to run the RFS.
And these figures don't include the enormous cost of combating wildfires.
Is this something the state can afford?

Now is the time to make change.
Let's honour the volunteer, the RFS core constituency. Let's acknowledge the invaluable contribution to the protection of their community and their environment.
Move the RFS headquarters to a rural community - eliminate the city centered bureaucratic – volunteer divide.
Allow local community based fire practitioners and land managers to mitigate local fire risks.
Moving the headquarters would engender the change the RFS needs to survive.
Because if we don't act now, I foresee;
- The continued destruction of a once great organization
- Bigger, more intense and more frequent bush fires
- Greater loss of human life
- Continued irreversible environmental destruction
- Loss of irreplaceable cultural assets Eg. ancient Aboriginal rock carvings and art
- Destruction of infrastructure, property and possessions
- Experienced and knowledgeable volunteers leaving the Service
- A fully paid fire service

Let's allow the RFS to once again be part of the community, rather than a city centered despotism that seems to be failing at keeping the State safe.

**I would greatly appreciate the opportunity to give verbal evidence and answer any questions the panel may have in camera.**

Thank you.
Brian Williams.

# Brian Williams

EXPERIENCE;

- 49 years continuous service
- Captain of Kurrajong Heights Brigade for the last 33 years
- Team Leader of Hawkesbury RAFT (Remote Area Fire Fighting Team) for 12 years
- Group Leader Qualified
- Incident Controller
- Prescribed Burn Supervisor
- Divisional Commander
- Safety Officer
- Have given evidence at 6 Government Inquiries and 1 Coronial Inquiry into bushfires.
- Member of the Independent Hazard Reduction Audit Panel (State Government Panel)
- Member of the National Fire Experts Group
- Member of the VFFA (Volunteer Fire Fighters Association)
- Member of the RFSA (Rural Fire Service Association)

# APPENDIX A

## RISK MANAGEMENT PLAN

# MOSIAC ZONING APPROACH TO HAZARD REDUCTION

# THE KURRAJONG HEIGHTS MODEL

# INTRODUCTION

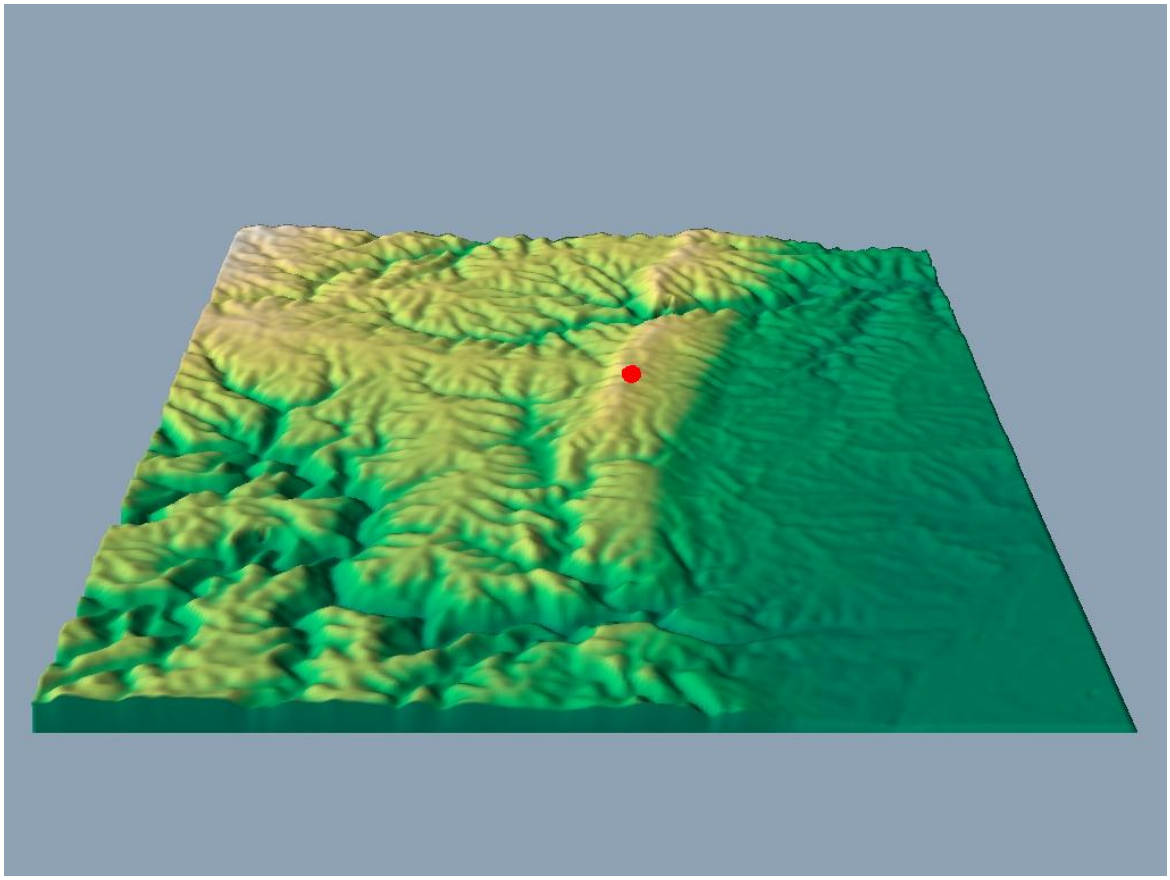
Kurrajong Heights sits high on top of a mountain range encompassed by bush, with close to three quarters of a million hectares of Blue Mountains and Wollemi National Parks surrounding. This means Kurrajong Heights is an extreme fire risk area, and the danger of wildfire is ever present.

**The Kurrajong Heights Brigade was established 65 years ago and in that period have an enviable record of having no loss a life or homes to a bushfire event.**

This success has been attributed to **cool weather Hazard Reduction using a Mosaic Zoning Approach.**
This plan has evolved from the accumulated experiences of local farmers and residents and from observations of fire behaviour in the local region.

**This was planned and implemented at the local level without bureaucratic influence.**
**It is this plan that has allowed us to keep our pristine environment whilst remaining safe from wildfire.**

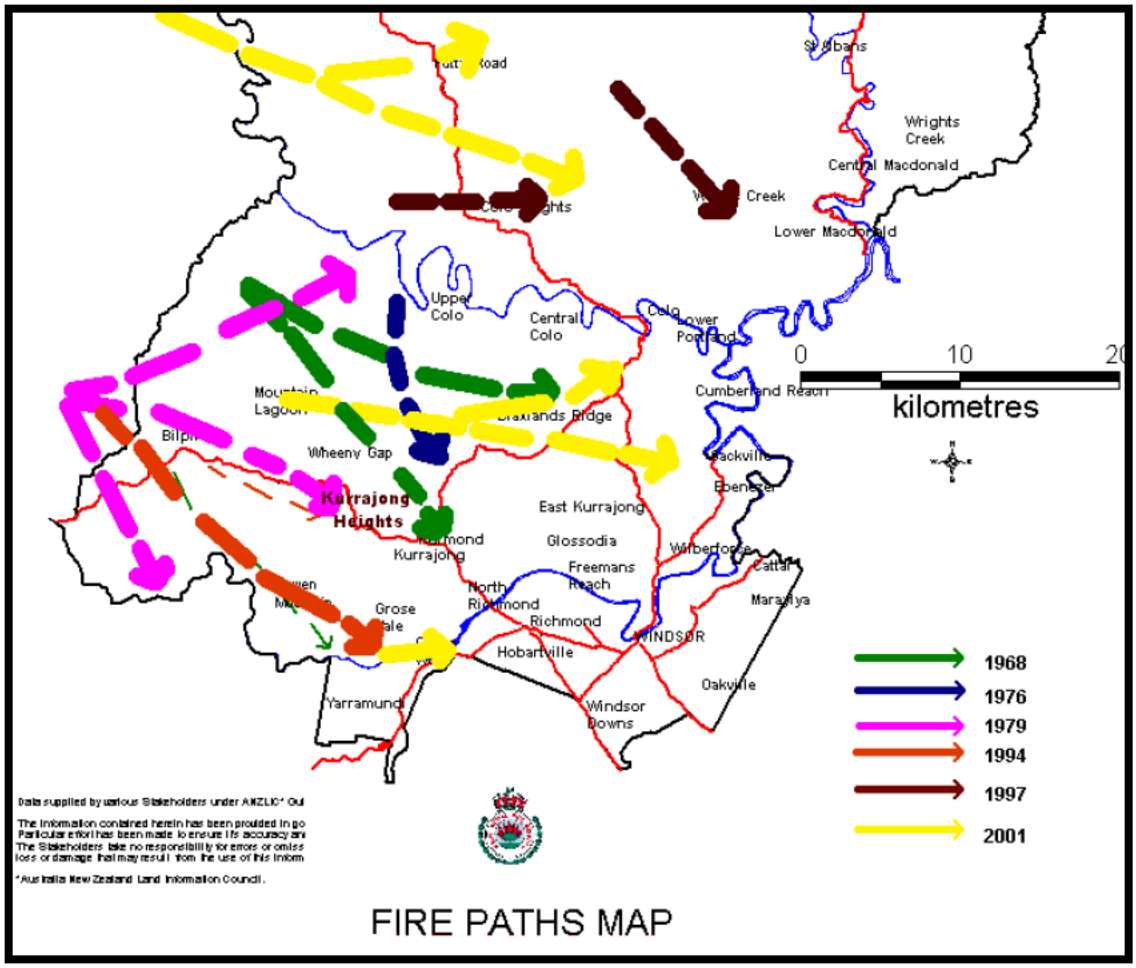
# KURRAJONG HEIGHTS 3D MAP



RED DOT Represents Kurrajong Heights Village

(approx 400 homes)

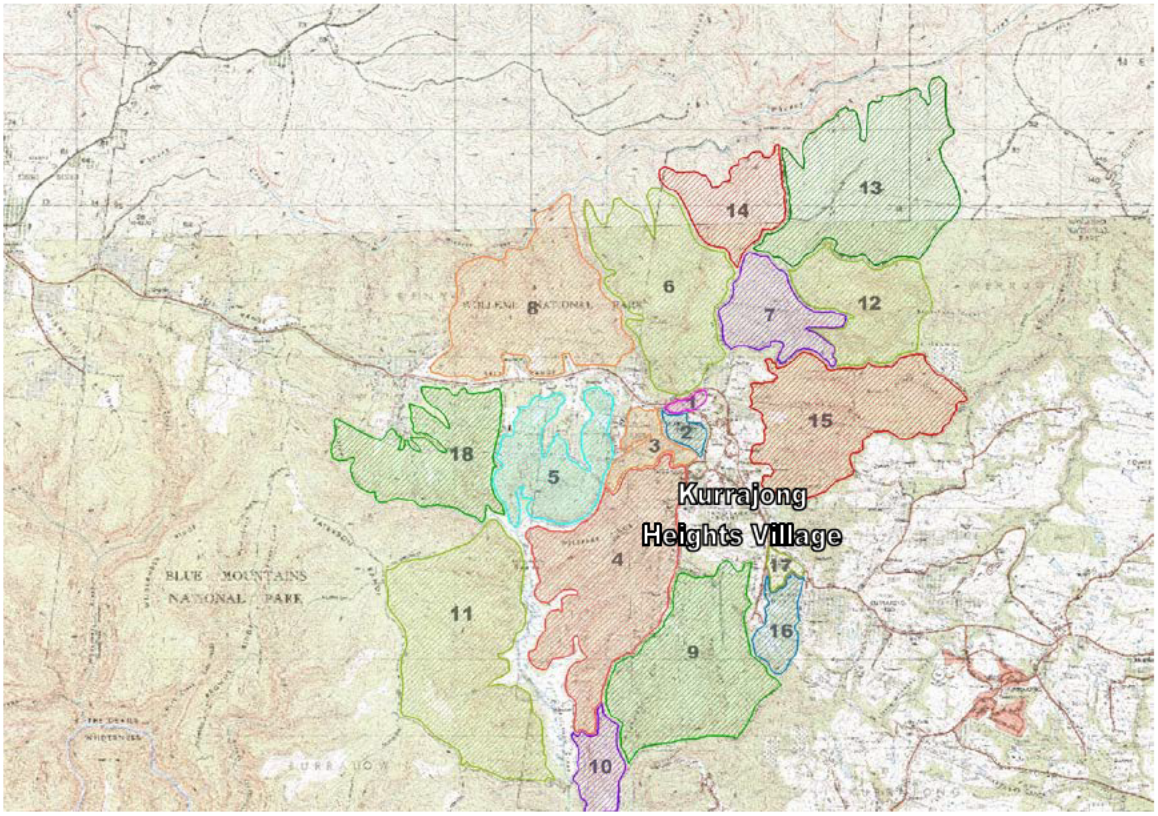
# KURRAJONG HEIGHTS FIRE HISTORY



# KURRAJONG HEIGHTS MOSAIC BURN PLAN

## (18 Blocks)

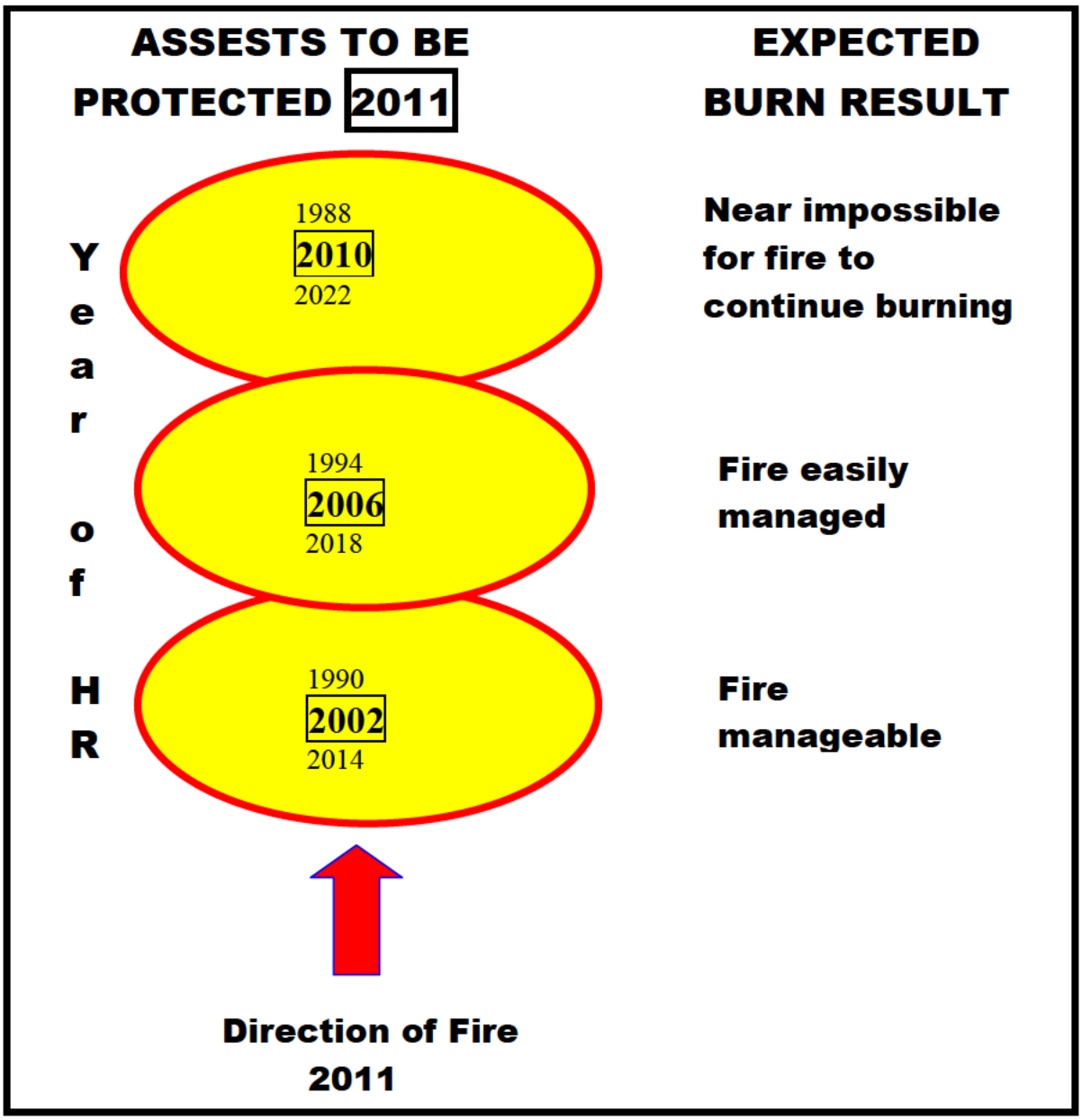
The Kurrajong Heights Brigade has in place a systematic mosaic pattern of hazard reduction.



# MOSAIC ZONING APPROACH TO HAZARD REDUCTION at KURRAJONG HEIGHTS

Due to the topography, the burning/fuel reduction of bush land is the only practical way of reducing the impact of wildfires. The Kurrajong Heights Brigade has used a mosaic zoning approach to hazard reduction with great success.

The following diagram represents our zoning approach.



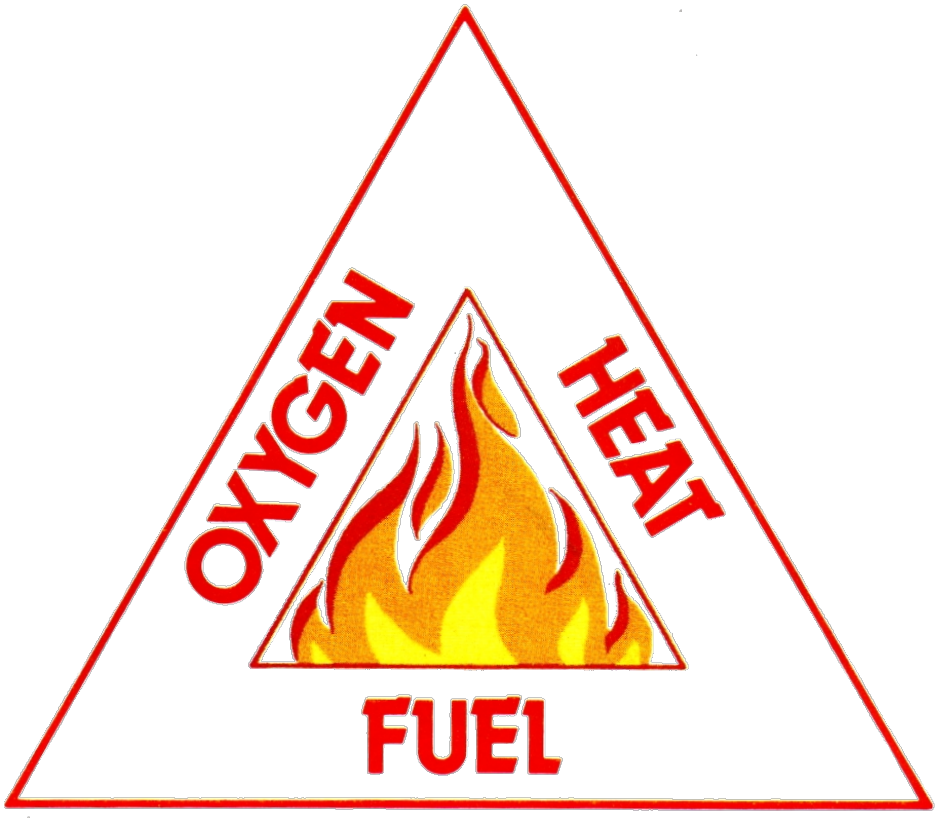
The zone pattern is three plots deep and the cycle of hazard reduction is 12 years. Once such a zone plan is put in place and maintained, for any given year of extreme fire at least one of the zones will provide a 'block' to the approaching wildfire. This process allows the time between H/R burns to be lengthened, which produces superior environmental outcomes.

Because of this strategy, Kurrajong Heights has an excellent flora and fauna bio-diversity with a tall timber tree canopy and low open scrub. The tall timber canopy helps retain soil moisture year round, aiding humus formation and soil improvement. In addition the low moderate H/R burns protects the fauna habitat by;

- leaving gullies unburnt as retreat areas
- minimising the destruction of habitat – hollow logs, rock crevices and humus are retained and this infrastructure can be readily recolonised.
- prevents soil erosion by retaining a humus layer.

**The Kurrajong Heights zoning approach to H/R is our major and ongoing defence strategy. It is a <u>simple, cost effective and environmentally friendly</u> way of alleviating the fire threat. It allows the community to have peace of mind, whilst living within a pristine environment.**

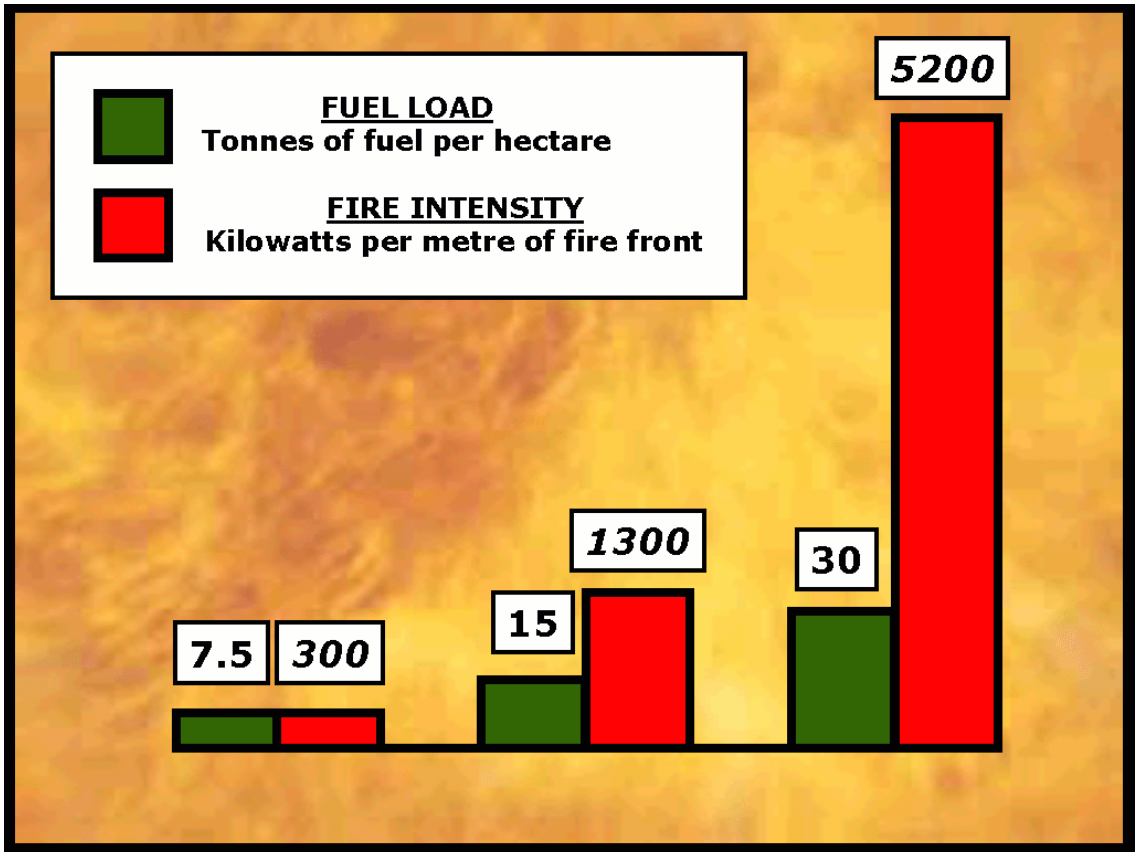
# THE FIRE TRIANGLE




The only factor that can be influenced by man is the FUEL.

Reduce the FUEL, reduce the FIRE

# FIRES RUN ON FUEL




1Killowatt is equivalent to the energy output of a single bar electric radiator
Fuel builds up in the Australian bush at an average of two tonnes per hectare per year.
7.5 tonnes per hectare is very easily managed as it only produces 300 kW per metre.

**Increase the fuel load by 4 to 30 tonnes per hectare and fire intensity is increased by over 17 times to an uncontrollable wild fire** (figures supplied by Rural Fire Service of NSW).

Note; This chart only goes up to 5,200 kW per metre of fire front.
**Modern day fires have registered fire intensities of up to 100,000 kW per metre of fire front.**
**100,000 kW = 100,000 single bar radiators stacked one on top of each other for each metre of fire front.**

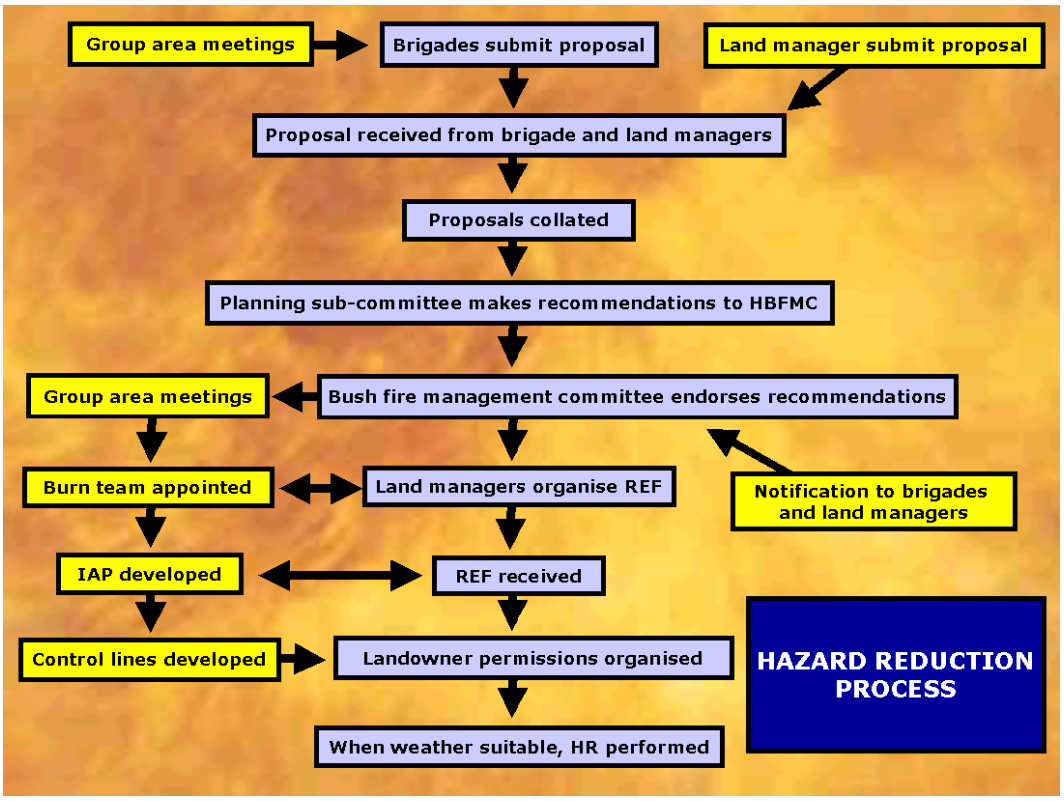
# THE IMPACT OF WILDFIRE

- Major Intensity wild fires are devastating to **everything – All flora and All fauna – EVERYTHING in their path.** It burns the soil, it explodes rocks and it creates conditions for an enormous loss of topsoil and humus due to erosion and with it the resultant loss of nutrients. The silt run off after rain finds its way into all the gullies – creeks and rivers, adding to the environmental damage. After wildfire a severe thunderstorm can remove 2000 years worth of topsoil buildup.
  **The Australian landscape cannot sustain this loss of valuable topsoil, humus and nutrients.**

- **It is our experience that areas that have been repeatedly subject to wild fire showed dramatic loss in bio-diversity of flora and fauna.**

- WILDFIRE – high intensity fires with energy levels 5000 to 100,000 kilowatts per meter of fire front – the devastation potential rivals that of a nuclear blast.
  **These fires cannot be put out by man** – the only way these fires are extinguished is by rain or by removal of the fuel.
  Conditions for wildfire are established where the ground fuel such as bush litter is allowed to build up to high levels.

# HAZARD REDUCTION APPROVAL PROCESS




Once in place further bureaucratic processes should not encumber the plan. It should be delegated to the local level to implement.
Hazard reduction can take many days to complete and **the window of opportunity in the weather conditions may not allow for an extended approval process**.
For example, the September 2001 hazard reduction at Burralow Rd took at least 7 days to complete and this proved to be our saviour in the 2001/2002 emergency.

# CONCLUSION

The only practical cost effective way to protect the people, their property and the environment from the devastation of major wildfire events is by managing the fuel levels across the landscape by control burning.

This is best planned and implemented at the local level – and should not be complicated and restricted by the bureaucratic process.

**The Kurrajong Heights Brigade would be happy to conduct study tours of our area of responsibility to demonstrate the advantages of using the Mosaic Zoning Approach. The advantages become obvious when compared to nearby areas which receive little management and get periodically burnt by major summer fires.**