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Official Committee Hansard

**HOUSE OF  
REPRESENTATIVES**

SELECT COMMITTEE ON THE RECENT AUSTRALIAN  
BUSHFIRES

**Reference: The recent Australian bushfires**

WEDNESDAY, 9 JULY 2003

KATOOMBA

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**HOUSE OF REPRESENTATIVES**  
**SELECT COMMITTEE ON THE RECENT AUSTRALIAN BUSHFIRES**

**Wednesday, 9 July 2003**

**Members:** Mr Nairn (*Chair*), Mr Adams (*Deputy Chair*), Mr Bartlett, Mr Causley, Ms Ellis, Mrs Gash, Mr Gibbons, Mr Hawker, Mr McArthur, Mr Mossfield, Mr Gavan O'Connor, Mr Organ, Ms Panopoulos and Mr Schultz.

**Members in attendance:** Mr Bartlett, Mr McArthur, Mr Mossfield, Mr Nairn, Mr Gavan O'Connor, Mr Organ, Ms Panopoulos and Mr Schultz.

**Terms of reference for the inquiry:**

The Select Committee on the recent Australian Bushfires seeks to identify measures that can be implemented by governments, industry and the community to minimise the incidence of, and impact of bushfires on, life, property and the environment with specific regard to the following.

- (a) the extent and impact of the bushfires on the environment, private and public assets and local communities;
- (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;
- (c) the adequacy and economic and environmental impact of hazard reduction and other strategies for bushfire prevention, suppression and control;
- (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 and practices;
- (e) any alternative or developmental bushfire mitigation and prevention approaches, and the appropriate direction of research into bushfire mitigation;
- (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;
- (g) the adequacy of current response arrangements for firefighting;
- (h) the adequacy of deployment of firefighting resources, including an examination of the efficiency and effectiveness of resource sharing between agencies and jurisdictions;
- (i) liability, insurance coverage and related matters;
- (j) the roles and contributions of volunteers, including current management practices and future trends, taking into account changing social and economic factors.

**WITNESSES**

**BELSHAW, Mr Peter Donald Geoffrey, Fire Planning Officer, Blue Mountains City Council ..... 1**

**BROGAN, Mr Christopher Gerard, Manager, Building and Construction Branch, Blue Mountains City Council..... 1**

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**GAROFALOW, Mr Frank Joseph, Program Leader Natural Systems, Blue Mountains City Council ..... 1**

**MARTINI, Mr Anthony Brendan, Group Manager City Solutions, Blue Mountains City Council ..... 1**

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**WEST, Christopher John, Fire Mitigation Officer, Blue Mountains City Council ..... 1**



**Committee met at 9.04 a.m.****BELSHAW, Mr Peter Donald Geoffrey, Fire Planning Officer, Blue Mountains City Council****BROGAN, Mr Christopher Gerard, Manager, Building and Construction Branch, Blue Mountains City Council****GAROFALOW, Mr Frank Joseph, Program Leader Natural Systems, Blue Mountains City Council****MARTINI, Mr Anthony Brendan, Group Manager City Solutions, Blue Mountains City Council****WEST, Christopher John, Fire Mitigation Officer, Blue Mountains City Council**

**CHAIR**—I declare open this public hearing of the House of Representatives Select Committee on the recent Australian bushfires. Today's hearing is the second one for the inquiry. It is part of the committee's program of hearings and visits in different parts of Australia. The hearings and visits allow us to pursue some of the issues raised in the 440 written submissions to the inquiry. The committee will be visiting rural areas to see first hand and to hear about some of the issues raised by the serious fires that have occurred in recent years. This afternoon the committee will also be holding a public hearing in Richmond and on Thursday in Cooma. I ask the local federal member for this region and committee member, Kerry Bartlett, to say a couple of words.

**Mr BARTLETT**—Thank you, Chair. On behalf of the committee I would like to thank Blue Mountains City Council for hosting us today; we appreciate the time you are giving up in doing that. Thank you also for your comprehensive submission. We know you have a lot of experience in dealing with bushfires and we look forward to hearing what you have to say to us this morning. The committee would also like you to pass on our thanks to the mayor.

**CHAIR**—I welcome the officers of the Blue Mountains City Council. Thank you for the hospitality here at the Blue Mountains City Council. Although the committee does not require you to give evidence under oath, I advise you that these hearings are formal proceedings of the parliament; consequently, they warrant the same respect as proceedings of the House itself. It is customary to remind witnesses that the giving of false or misleading evidence is a serious matter and may be regarded as a contempt of parliament. First of all, do you wish to make a brief statement or any other remarks in relation to your submission before we go to questions?

**Mr Garofalow**—We have a quick PowerPoint presentation, which we have given you copies of. First of all I would like to thank you very much for the opportunity to further expand on our submission. Blue Mountains City Council has many positions within it that have roles managing bushfires. Some of the key positions are: an emergency management officer, who deals with emergency events and who is the local emergency officer contacted by police and other emergency services to access council resources; a fire planning officer, who is responsible for public land, fire management and general strategies relating to bushfires as far as the council is concerned; a fire mitigation officer, who looks after the responsibilities that the council has

under the Rural Fires Act to manage private land and the bushfire risk associated with it; and a fire mitigation works crew, which is responsible for undertaking work on council managed land.

Some of the key activities the council undertakes in relation to bushfires are the clearance of asset protection zones on council managed lands adjacent to vulnerable assets; the serving of notices under section 66 of the Rural Fires Act for the clearance of assets protection zones on private land; undertaking environmental assessments for hazard reduction burning on council land; setting and enforcing building codes to maximise bushfire protection; and financing and administering the RFS and SES and providing resources to both those agencies, as well as the police in the event of an emergency.

*A PowerPoint presentation was then given—*

**Mr Garofalow**—As these graphs show, the council undertakes an annual program to clear asset protection zones—30 hectares were cleared in the last financial year. On private land, section 66 notices are issued to private landholders, requiring them to clear asset protection zones on their properties. Blue Mountains City Council has development controls in place, which have now been superseded by recent state government amendments to require bushfire related protection and development. These controls require the provision of bushfire protection measures on all new developments in bushfire prone areas.

Asset protection zones are the primary activity in Blue Mountains City Council's bushfire mitigation strategies. Asset protection zones are areas of reduced fuel levels around an asset. One of the major components of fire intensity is the amount of fuel available to the fire. Put simply, the more fuel, the greater the fire intensity. An asset protection zone reduces fire intensity by reducing the amount of fuel available to a fire near a vulnerable asset. Asset protection zones generally involve the removal of understorey vegetation—you can see on the slide that the understorey vegetation has been removed at that site.

This is an example of an ineffective asset protection zone. The thick vegetation is still in direct contact with the house. This vegetation could ignite and result in the loss of the asset. This is an example of a poorly undertaken asset protection zone. Overclearing can result in serious erosion issues. This slide shows an example of an effective asset protection zone. As you can see, not so much in the black-and-white photo but there, the fire stopped at the edge of the fuel-reduced area.

Legislation introduced by the state government on 1 August 2002 reinforces council's existing asset protection zone requirements. An asset protection zone cannot work alone. Blue Mountains City Council experience shows the lesser asset protection zones can work effectively if combined with attention to detail in construction, good property management and good fuel management. The responsibility for construction and maintenance of asset protection zones belongs to the property owner. Specification and design are adequately covered in the current legislation. Council has a responsibility under the Rural Fires Act to ensure that property owners and occupiers comply with this legislation. Blue Mountains City Council is a leader in the state in terms of management of asset protection zones, with between 1,200 and 2,500 properties per year inspected. This results in an issuing, on average, of 500 section 66 notices.



This is an example of a building that survived the Boxing Day 2001 fires. The subdivision provides a clear delineation between the development area and bushland. The house is approximately 15 metres from the bushland interface, and no serious damage was sustained to the house. The building construction incorporated components such as fire retardant insulation beneath roof tiles and metal screens to the windows. Fuels were well controlled close to the dwelling, and minimal firefighting effort was required to protect this building. Anecdotal evidence suggests that flame height was twice the height of the trees shown in that picture.

Asset protection zone design is important. Cleared areas will not stop ignition from windblown embers if an asset has vegetation or other potential fuels directly in contact with the structure. Asset protection zones must begin immediately adjacent to the assets at risk. Broadscale prescribed burning is useful; however, fuel reduction immediately adjacent to an asset is one of the most important aspects of fire mitigation. Many residents do not fulfil their responsibilities to protect their own properties. Education and support of the community at an individual level is essential.

A well-prepared property is the best defence against loss through a bushfire. Hazard reduction must be targeted to protect assets at risk. Broadscale hazard reduction work alone cannot protect an unprepared property. In conclusion, a bushfire protection strategy needs to integrate a number of protection measures, including building standards, well designed and maintained asset protection zones, good public land management adjacent to vulnerable assets and good community education promoting preparedness in how to deal with a bushfire emergency. Individual property owners need to take responsibility for minimising the impact of bushfires on their assets.

**CHAIR**—Thank you very much, and thank you for the very comprehensive submission that the council has provided to the inquiry and also for the many recommendations. You have gone that extra step that other people have not, which the committee very much appreciates. If people do not comply with the section 66 notices, what is the process?

**Mr West**—The process for section 66 is stipulated in legislation. Council allows 30 days for compliance with the notice. If after 30 days a second inspection finds the work has not been carried out, the council will issue a final warning. That clearly defines the ramifications of noncompliance, which is a \$500 fine. Plus council then acts under section 70 of the act, which requires council to obtain quotes and have the work carried out at the owner's expense.

**CHAIR**—Do those notices apply to all landowners, whether they are private individuals or they are under other government ownership?

**Mr West**—Section 66 is specific and relates to private property only.

**CHAIR**—What about land that is owned by or under the control of state agencies or government business enterprises or any of the others? What is the situation there?

**Mr West**—Government agencies are all representatives on the bushfire risk management committee and they are required to report back through that committee on their activities. If a person has a problem with an asset at risk from agency land, that land complaint should be referred to the committee.

**CHAIR**—What is the experience of council with respect to those lands? Let us call them public lands, but they may be under the control of various agencies. What are your experiences with fuel reduction in those areas?

**Mr Garofalow**—It is generally very good. Once the issue is brought to the attention of the government agencies in question, particularly in this area where bushfire is known to be a serious issue, those agencies respond quite quickly. There is very good cooperation between various agencies built up over years of working together in the event of actual bushfires. This has let us all work well together to reduce fuel loads where there is an asset at risk whatever the land tenure.

**CHAIR**—Does that include the National Parks?

**Mr Garofalow**—Definitely, National Parks are a leader in this field. National Parks, the Rural Fire Service and council work very closely together to jointly manage the bushfire risk.

**Mr BARTLETT**—Under the legislation that came into force in August last year—the Rural Fires Act—and the requirements of buffer zones or asset protection zones, is it possible that there would be any areas where building would be prohibited?

**Mr Brogan**—If the development proposal cannot meet the asset protection requirements under planning for bushfire guidelines—the guiding document published by Planning New South Wales and the Rural Fire Service—council is required under the act to refer that application to the Rural Fire Service for comment. Council then has to have regard to those comments in determining the application. It would be most unlikely for a council, or for this council, to go against the recommendations of the Rural Fire Service. If they had recommended refusal of an application, more than likely the council officers would go along with that particular recommendation. There have been cases where, due to the environmental impacts of the required asset protection zones, the development was not favoured by officers. We have been working with the RFS to try and resolve those particular situations.

**Mr BARTLETT**—So under that act it is possible that someone who had bought residential land in good faith intending to build a house on it could be prevented from doing so?

**Mr Brogan**—It would certainly be possible. It would not be a high incidence, but it would be possible.

**Mr BARTLETT**—Perhaps you can comment on council's approach to compensation in that situation.

**Mr Brogan**—That is not a matter that council believes it would be responsible for.

**Mr BARTLETT**—Is it true that the state government has refused to consider compensation?

**Mr Brogan**—I am not sure whether they have refused or not.

**Mr BARTLETT**—If someone bought land zoned as residential in good faith and then because of that legislation implemented in August last year cannot build, do you think it would be reasonable that compensation be considered?

**Mr Brogan**—I think it would be reasonable that it would be considered.

**Mr BARTLETT**—Thank you. I would like to move on to two of the recommendations in your submission. Recommendation 3 is the development of a statement of understanding placing the emphasis on the property purchaser accepting personal risk from bushfires and taking steps to protect their own properties from that risk. Recommendation 9 talks about hazard management through landscaping. Can you outline the way the current tree preservation order works? I am particularly interested in the amount of flexibility that gives an individual landowner to carry out the responsibilities in recommendation 3.

**Mr West**—The tree preservation order does not apply to trees which are assessed as being a fire hazard or a threat to an asset. They would come under section 66 and therefore would be my responsibility.

**Mr BARTLETT**—If a landowner has trees that he or she thinks could be hazardous then they need to have them assessed. Is there a cost to the landowner in having them assessed?

**Mr West**—None whatsoever.

**Mr BARTLETT**—What is the normal length of the assessment procedure and when is approval granted for the removal of those trees?

**Mr West**—Under the Rural Fires Act, a complaint or a request for an inspection has to be in writing. I have seven days to reply to the request.

**Mr BARTLETT**—If it is your view that that is a hazard then that response involves permission to remove that vegetation?

**Mr West**—Normally the property would be assessed within 48 hours, and the assessment would be completed with the approval to the owner within seven days.

**Mr BARTLETT**—And at no cost?

**Mr West**—At no cost.

**Mr BARTLETT**—Following on the same issue of landowners' responsibility for their own land, given the proposed changes to vegetation requirements on residential property—for instance, the proposals regarding the vegetation management order—there are concerns in the community that they may restrict an individual's ability to manage properly their own property. Can council guarantee that any such regulations that come in will not in any way run counter to your recommendation 3—that individuals take responsibility for the protection of their own property?

**Mr Garofalow**—As we have said already, the council have taken protection from bushfires very seriously for a long time. In addition to that, we also take protection of the environment very seriously, and we have been doing that for a long time as well. We have found that they are not in conflict; we can work with the two and keep them working together well. Through our section 66 program, over the past 10 years—or however long we have been doing it; it has been quite a while—we have been able to easily balance those two. Occasionally, there are issues that have to be worked through, but generally we do not find them in conflict.

**Mr BARTLETT**—That is interesting. I find that a little inconsistent with views that are put to me about what people can and cannot do in their backyard, but I am interested in your comments. You are totally confident then that any proposed changes under the LEP or the proposed vegetation management order will not in any way hinder a person's ability to manage hazard on their own property?

**Mr Garofalow**—On existing assets; that is right.

**Mr MOSSFIELD**—I have two questions. Could you advise the committee what role statewide and local radio stations and Telstra play in providing communications and information to residents during bushfires?

**Mr Garofalow**—Telstra is part of the bushfire management committee that Chris mentioned earlier. In the event of an emergency, they set up a local base here to ensure that all telephone issues are covered. We liaise directly with the local and regional radio stations and do regular updates. In the last few fires, that has worked very well. Communication has worked well. In addition to that, we introduced the use of the SES in the 2001 fires to go around doorknocking and providing direct information to residents in the affected areas, advising them of the situation and trying to give people a face to see so that they would not panic. That new initiative also has worked very well.

**Mr MOSSFIELD**—In the event of bushfires, do Telstra set up a special hotline that people can ring to get immediate information about how the bushfires are developing or do you request them to do that?

**Mr Garofalow**—Telstra themselves do not do that. They might, but generally there are other agencies that handle the aspect of keeping people informed. Telstra's role is to make sure that communication is flowing. Telstra's job is not to inform people of what is happening in relation to bushfires—the Rural Fire Service or council undertake that role. Telstra ensures that communications continue throughout the fire regardless of where the fire happens to be.

**Mr MOSSFIELD**—Moving on to a completely different area, I just want some clarification about your statement under recommendation 5, in the paragraph which commences as follows:

To this end, Council wishes to state that broad-scale hazard reduction ...

Could you comment on what your meaning is there? I am a bit confused as to what the intention is and what you are really saying in relation to National Parks and their role. Have you got any criticism of the role of the National Parks?

**Mr Garofalow**—Definitely not. As I said previously, we work very well with the National Parks service. They undertake a significant amount of broadscale hazard reduction work. What we are trying to say in our presentation is that we do not see broadscale hazard reduction as the only method of protecting assets. As a matter of fact, we probably would not even say that it is the most important method of protecting assets. We would say that it is asset protection zones, those areas immediately around assets, which are the most important. There is no doubt that hazard reduction burning does serve a function and you can see that if you follow a fire path when it enters an area where there have been hazard reduction burns. But talk to the local Rural Fire Service and they will tell you that the National Parks service is very cooperative and works well with both council and the Rural Fire Service in terms of undertaking hazard reduction burns in a strategic way.

**Mr MOSSFIELD**—Thank you.

**Mr GAVAN O’CONNOR**—On page 7, in the second paragraph, you made this statement:

Council wishes to express its concern that the debate over land management practices and the effect of fire appears to be discussed and directed by persons without a sufficient knowledge of land management practices or historical data.

Would you like to elaborate on the statement?

**Mr Garofalow**—A concern that is felt by council—and that statement may have come off a bit strong—is that often in the event of the fire, and we have seen it a few times, there is a panic about, ‘How are we going to fix this? How are we going to stop houses from burning down?’ Bushfires are going to occur. Bushfires are a natural event and they are not going to be stopped. As a matter of fact, due to arson and changed distribution of people, they are probably going to be worse than ever.

We cannot expect never to see homes being destroyed. That is going to happen occasionally. It is unfortunate but it will happen. The point of view of council is to ensure that any comments that are made in the media or elsewhere are made in an informed manner and are not trying to look for someone responsible. Obviously where there is negligence, that needs to be clarified—but for the most part, the system is not broke. Particularly in the Blue Mountains things are working very well. We lost some houses in 2001 and that is very unfortunate, but in actual fact the way we managed that fire was very good. All credit should be given, in particular, to the local Rural Fire Service and the National Parks who were a core part of the incident management team on those fires in making sure that no further damage happened.

From our point of view, we are saying that to expect there to be zero house loss during fires of the size that we had in the 2001 bushfires is probably unrealistic. The fact that that there were only 11 houses lost in the Blue Mountains should be congratulated rather than being an issue of attack.

**Mr GAVAN O’CONNOR**—Your local government here obviously has a very well-oiled structure in dealing with these situations of bushfires. Do you regard yourself as a leader?

**Mr Garofalow**—We would think that. We certainly find that other local councils are interested in what we are doing in terms of amending how they do business.

**Mr GAVAN O'CONNOR**—In the seasons 2001, 2002 and 2003, we have seen fires of significant intensity that threatened property and life. In your experience, how do these fires compare with what has been observed previously?

**Mr West**—I have been a rural fire fighter in the Blue Mountains for 30 years, going back to 1968. The fires at the moment are probably less intense, but they have a greater impact because of the greater density of population in the area. We are far more aware of the impacts of fire. The Rural Fire Service and the suppression agencies are far better equipped and their response time is much quicker, so they get to a fire much quicker than they ever have in the past.

**Mr GAVAN O'CONNOR**—Do you employ aerial assets in fighting fires here?

**Mr Garofalow**—Helicopters and so forth?

**Mr GAVAN O'CONNOR**—Yes.

**Mr Garofalow**—National Parks and the Rural Fire Service supply helicopters and also fixed wing planes in the event of a major emergency.

**Mr GAVAN O'CONNOR**—How effective have they been in the fires that have occurred recently?

**Mr Garofalow**—You will need to speak to those agencies—the Rural Fire Service and National Parks—but, as someone who is watching, they seem to me to be very effective. But the agencies directly managing those appliances would be able to answer that better.

**Mr GAVAN O'CONNOR**—This committee has been into an area quite recently where National Parks came in for some very heavy criticism, both in terms of the hazard reduction activities around their own areas of responsibility—the national parks—and perhaps in terms of the attitudes of some staff to private residential holders. What has your experience been in your relationship with National Parks in this community?

**Mr Garofalow**—As I said, we get along fantastically with National Parks and we work very closely with them. They are a key member of the firefighting force in the mountains. I would probably say that they have an equal role to the Rural Fire Service when a fire is on. They share the role of incident controller generally, and they supply a substantial amount of resources. They are very serious about the issue of preparing for fires. They undertake the appropriate amount of hazard reduction burning in the area. Basically, I have nothing but the highest regard for National Parks and their involvement in fire management in the Blue Mountains.

**Mr GAVAN O'CONNOR**—You make a statement on page 7 when you are commenting on the severity of the drought that we have experienced and the climatic conditions on the disposition for fire in this particular area. I guess you are talking about hazard reduction burns. You say, 'It also makes the removal of such fuels by burning very hazardous.' There is a school of thought that we should have hazard reduction burns in any event, in any situation. What is your comment on that?

**Mr Garofalow**—I will ask Chris to comment further, but a quick comment on it is that there have been cases in the past, probably in every region where hazard reduction burns have been implemented, where they have escaped and become wildfires. That is what that comment is referring to—basically, the risk of potential escape from a hazard reduction burn that then results in a wildfire that could impact upon asset and residences.

**Mr West**—With hazard reduction burning or the reduction of hazards by burning, the preparedness and the amount of work that goes into the planning of a burn often goes unnoticed.

**Mr GAVAN O’CONNOR**—Could you take us through that?

**Mr West**—It depends on who is carrying out the burn. Some residents of the community would like to just burn in the backyard—get a match, throw it into the backyard on a Saturday morning and burn off the fire hazard. The number of applications I have for that is incredible. There is no preparation there whatsoever. It goes from that right through to a process whereby a suppression agency—National Parks, for instance, or the Rural Fire Service—who wishes to undertake a burn has to first put a proposal to the committee. The proposal stipulates the time, date, method, and a prescription process on what they are trying to achieve and how they will achieve a prescribed outcome. That process can take six to 12 months. But, given the size of those burns and the potential for damage, it is well worth it, especially for the environment. One of the bigger considerations is how that burn will impact upon the environment.

**Mr McARTHUR**—What is the attitude and culture of local residents towards wildfire? Are they aware of it on a day-by-day basis during the fire season and are they prepared to take action if a fire turns up?

**Mr Garofalow**—We have a diverse community with diverse points of view. Some residents are very aware and very prepared and other residents are less so.

**Mr McARTHUR**—What is the community’s attitude towards wildfire? Is it seen as a real potential every December-January?

**Mr Garofalow**—Absolutely. This community has lived through many fires, so they are well aware of the potential risk of wildfire.

**Mr McARTHUR**—So there is community support for the council’s activity?

**Mr Garofalow**—Absolutely. Council have an emergency services levy that they apply to all residents, and that goes towards funding bushfire related activities and other emergency services activities. The community is in support of that levy.

**Mr McARTHUR**—What about the newer residents who come to live in the Blue Mountains?

**Mr Garofalow**—That is definitely an issue for us. We have residents from primarily urban areas moving to the Blue Mountains who are not experienced with the local conditions of the Blue Mountains and the issues associated with them, but usually it takes one fire for them to learn quickly. We have people like Chris West who go around to those residents and offer them extensive information. If those residents are reluctant to cooperate then we can use the

legislation—section 66 of the Rural Fires Act—to force them to undertake hazard reduction works around their assets.

**Mr McARTHUR**—Could I move on to the asset protection zones. There are two issues. You spoke to Mr Bartlett about one of them, the removal of a tree. I am not quite clear on what permission you can get to prepare the zone, which is what the first question is about. The second question is: what methods do the council use to encourage or coerce individual land-holders? How do you implement your plan? If a land-holder says, 'I'm not going to clear the buffer zone,' what do you do about it?

**Mr West**—It is a matter of negotiation. The first statement I make to a landowner when I arrive is that I am not there to tell them what kind of garden to have but I tell them that whatever kind of garden they decide to have must be safe for them and their neighbours. It starts off as an education process, where I tell them, 'This is what you need to do and this is why you need to do it.' Finally, if I cannot make an agreement with them, the potential for action under section 66 of the act is brought to their attention.

**Mr McARTHUR**—Is that a state act?

**Mr West**—It is.

**Mr McARTHUR**—You are the implementing authority?

**Mr West**—Exactly.

**Mr McARTHUR**—What do you do? Do you put them in jail?

**Mr West**—No. The process is that we would explain why it is necessary. If I got into a situation where I intended to issue a notice, I would explain why I was issuing the notice and what they needed to do to comply with the notice, and they would be given a time frame of 30 days to comply. If at the end of 30 days that work was not completed, the property would be reinspected. If it was found that the work had not been completed, under section 70—which is the penal clause—the work would be carried out by a council contractor and the costs would be recovered from the landowner. The landowner has three avenues of appeal: firstly, to me; secondly, to the Commissioner of the Rural Fire Service; and then to the minister.

**Mr McARTHUR**—What happens if you are getting near the fire season, say in September or October and, in the position of a householder, you want to burn up some material? What action would you take then?

**Mr West**—Less than five per cent of the notices I issue are for clearing by burning. The majority of clearance is carried out mechanically, either by slashing or trittering—that is, the conversion of standing vegetation into a mulch on the ground. It has a number of advantages over burning, especially with our fragile soils up here.

**Mr McARTHUR**—Do you have mulching contractors and slashing contractors in the area?



**Mr West**—We do, and as well we have a list that goes out with every notice. Council also carries out the work itself.

**Mr McARTHUR**—What do most land-holders do? From those photographs it looks as though you have done some burning. Are some of the bigger trees generally slashed and removed?

**Mr West**—Trees themselves are not necessarily the fire problem. The fine fuel, the fuel from 50 millimetres from the ground through to three metres, is the critical area. The reduction of the fine fuel in a mosaic pattern is far more effective than just wholesale clearing.

**Mr McARTHUR**—Do you think you have your techniques of how to execute these plans to remove the material pretty well worked out in this area?

**Mr West**—The Blue Mountains City Council has been renowned for its activity in this area. The New South Wales Rural Fires Act was drafted after the 1994 fires, and a committee similar to yours visited from the state. They actually took the Blue Mountains City Council process and adopted that as state policy under section 66. At the same time, the recommendations by Coroner Hyatt held up the Blue Mountains as being the state leader.

**Mr McARTHUR**—When is the next fire?

**Mr West**—Today. We have fires almost every day, ranging from a backyard burn that has got out of control right through to house fires.

**Mr McARTHUR**—What about the next major fire on a statistical basis? Do you anticipate a major fire every 10 years or so, or do you reckon you have it under control now?

**Mr West**—We always anticipate a major fire next year; we are always prepared.

**Mr McARTHUR**—So that is your attitude of mind, that you are always prepared for a major fire?

**Mr West**—We have to be prepared. You cannot be complacent. You mentioned a house being prepared just before the fire season. Our process of inspections is year round. I carry out inspections every day.

**Mr McARTHUR**—Is there a falling away of the community attitude over a 10-year period after a major fire? Do people say, ‘The fire won’t turn up this year?’ Or do you think the attitude of this community is that fire is always an imminent danger?

**Mr West**—It is always an imminent danger, but I think what happens is that we have a change in members of the community. Just before our last fire we had an analysis done that showed that 75 per cent to 80 per cent of our population had never lived through a fire, so they do not have first-hand experience. As soon as a fire of any kind goes through, my office is inundated with requests—up to 300 or 400—from people who are concerned about their property, and that interest is kindled by the fire itself. So, yes, straight after the fire there is a reaction and that does drop off.

**Mr McARTHUR**—So do you need a fire every 10 or so years to smarten up the boys?

**Mr West**—We never need a fire!

**Mr McARTHUR**—Thank you.

**CHAIR**—Statistically, Mr McArthur, if you look at the last century, the figures provided by the council show that it basically averages out to about one fire every eight years, but with frequencies down to two or three years or up to about 11 years.

**Ms PANOPOULOS**—Mr Garofalow, what is your position and your expertise?

**Mr Garofalow**—I am the program manager of natural systems, so I manage all the natural system programs from vegetation management and weed management to bushfire issues, water quality issues and so forth. My background is in both engineering and natural systems management.

**Ms PANOPOULOS**—So your expertise is actually in management and coordination?

**Mr Garofalow**—I have expertise in land management and detailed expertise in vegetation management.

**Ms PANOPOULOS**—What sort of expertise is that?

**Mr Garofalow**—There are two types: I have a degree in environmental engineering and also a masters degree in ecosystems management, so basically land management and management of vegetation. In addition to that, I have a range of highly technical expert staff that work for me that also have expertise, and I have been working in this field for 10 years gaining direct knowledge.

**Ms PANOPOULOS**—I was interested in your comment when you said that there was an appropriate level of hazard reduction. It is a pretty general statement. Do you mean right across the whole area under the jurisdiction of the Blue Mountains City Council?

**Mr Garofalow**—I am on the bushfire risk management committee, which has been mentioned before. It is made up of various state agencies, councils, environmental groups and so forth, and it has the overall carriage of jointly looking after the bushfire risk in the Blue Mountains. As part of that committee, we look at cross-tenure issues and in terms of the activities of an agency such as National Parks—

**Ms PANOPOULOS**—Specifically, when you said that there was an appropriate level of hazard reduction, was the area you were referring to the whole of the area covered by this council?

**Mr Garofalow**—Yes.

**Ms PANOPOULOS**—What do you base that statement on?

**Mr Garofalow**—Basically, on experience—on what is achievable, how effective it has been in the past in recent fires and on the expertise of those involved.

**Ms PANOPOULOS**—But I am relying on your opinion, not on the expertise of those involved. What do you base it on? Are you familiar with the total area that you are talking about?

**Mr Garofalow**—Yes. I do not know the fuel levels in every area, but basically—

**Ms PANOPOULOS**—If you do not know the fuel levels in every area, how can you say there is an appropriate level of hazard reduction?

**Mr Garofalow**—Because I am working at a landscape scale. At a landscape scale we are not looking at individual blocks, because that is pointless; we are looking across the landscape of the area responsible under the bushfire management committee. At that scale you can plan out areas that are appropriate for hazard reduction, as well as meet the environmental requirements. By doing that, I definitely feel that an appropriate level of hazard reduction is occurring.

**Ms PANOPOULOS**—What does that ‘landscape’ approach mean?

**Mr Garofalow**—It means that you plan where the fire pass is likely to be, based on topography, history and so on, and anticipate where the fire is going to be. You plan: ‘If we look after this area and reduce fuel possibly in this area, it will divert a fire in this direction,’ and so on and so forth.

**Ms PANOPOULOS**—So there is a certain amount of guesswork involved?

**Mr Garofalow**—No, it is not guesswork; this is the work of experts who have been doing this for many years.

**Ms PANOPOULOS**—So every prediction of a fire and its likely path is absolutely correct?

**Mr Garofalow**—Absolutely not.

**Ms PANOPOULOS**—So there is a certain amount of guesswork involved, relying on past data.

**Mr Garofalow**—It is not guesswork. What is involved is people putting—

**Ms PANOPOULOS**—Predictions, then.

**Mr Garofalow**—‘Predictions’ is appropriate. That is right.

**Ms PANOPOULOS**—It is just another word—

**Mr Garofalow**—Yes.

**Ms PANOPOULOS**—for the same thing. That is all I have.

**Mr ORGAN**—On page 8 of your submission, under recommendation 5, you raise the idea that strategic rather than just broad-scale hazard reduction is the way to go—and also the whole idea of concentrating on private property asset protection with those specific zones. That follows what I have heard in areas such as the Illawarra, which is similar to here in that you have been dealing with fire management for a long time now—since 1968, I think, when there were major fires—so you have a lot of experience. I did not hear your major presentation, but obviously you do see yourself as taking a leadership role.

The first part of my question is: from the local government viewpoint, why do you think that your relationship with National Parks and Wildlife Service and with some of the other authorities is apparently stable, non-contentious and so beneficial with regard to managing fires, whereas in other parts of the state we are seeing a lot of criticism of National Parks and of the Rural Fire Service bureaucracy? The second part of my question is: at the end of the day, do you think local government is best able to take the leadership role in bringing all the various authorities together and managing bushfires?

**Mr Garofalow**—First of all, I cannot comment on what occurs in other local government areas. As for what occurs in this area, I think the reason why we find it so successful is our experience. Basically, this is a very fire prone area, and we have worked together to manage many fires. Through that and the intensity of an incident management team, personal relationships and an understanding of each other's activities are built. We are all residents of the area as well, whether we are working for National Parks, the Rural Fire Service or the council, so we are all after the same goal, which is to ensure that the area that we love is protected both from an environmental point of view and from bushfires and their potential impact upon our homes. So it is working together over a long time and coming to an understanding of each other and our individual goals that I think has led to us functioning so effectively. I am sorry—what was the second part of your question?

**Mr ORGAN**—It was whether you see local government as having a role in bringing all these authorities together.

**Mr Garofalow**—I think every agency has its particular role. I do not see local government as ever being a suppression agency and, as such, I see local government well positioned to do the planning and preparation work in conjunction with other agencies. But in the event of a fire actually on our doorstep I do not see local government having the lead role in suppression. I could not ever see that occurring.

**Mr ORGAN**—But what about general management? Because I think one of the problems is that you have National Parks doing one thing and the Rural Fire Service doing another; you might have even the federal government and emergency services coming in; and then you have local government as well. In a regional area there obviously needs to be pretty tight management of all these various things.

**Mr Garofalow**—As has been stated, the bushfire management committee is where all these agencies get together and work on this issue jointly. That has been very effective. It is chaired by a local councillor. The executive for it is the Rural Fire Service. The relationships built over time between the various agencies in this joint committee have been very effective. I would say that a

continuing joint arrangement like that is most effective—where each agency brings the expertise that they have to the table and shares it to get a better outcome.

**Mr ORGAN**—Mr West, would you like to comment on that?

**Mr West**—Mr Organ, I would like to comment on your comment about the Illawarra. Wollongong Council visited our area last October-November to assess our system. That has happened in the past as well: your fire mitigation officer was trained in this area. It is not just a matter of one local government; we are supportive of local government and the suppression agencies. We work as a team and that is why we achieve what we do.

**Mr SCHULTZ**—I have a number of things I want to raise but I would like to go back to the issue of hazard reduction, particularly relating to National Parks. Council seems to know a significant bit about National Parks and what they are doing. Can council tell me what total acreage makes up the national park around this council?

**Mr Garofalow**—The national park extends beyond our borders so I cannot give you the exact figure. We are about 1,400 squares and the park is about 75 per cent of the council area. I cannot give you exact figures unfortunately; sorry about that.

**Mr SCHULTZ**—Can you tell me the total acreage that has been hazard reduced by National Parks in a controlled burn situation?

**Mr Garofalow**—No, I do not have those figures with me.

**Mr SCHULTZ**—Would you like to make a comment as to why National Parks—if that organisation is as efficient as council has portrayed—will not talk to this inquiry?

**Mr Garofalow**—You will have to bring that up with National Parks.

**Mr SCHULTZ**—I thought, because of the defence you made of the National Parks in your statements today, that you might have been able to make a comment on it.

**Mr GAVAN O'CONNOR**—For God's sake, Alby!

**Mr SCHULTZ**—That is the reality of it.

**Mr GAVAN O'CONNOR**—It might be the reality of it.

**Mr SCHULTZ**—I would like to talk to council about section 66. Did I hear right: council suggests to private land-holders what plants they are able to plant in and around their own private properties?

**Mr West**—The only restriction on what species you can plant on your property is on declared noxious plants. Any other plant would be acceptable but certain species are far more fire prone. Council has a list of recommended trees and recommended plants in the asset protection zone but if a person were to use a highly fire prone plant that plant would be accepted at a lesser level than a plant with a higher moisture content, for instance.

**Mr SCHULTZ**—As an example, if Alby Schultz bought a plot of land in the belief that he could build in that area—he would not have that knowledge as I understand it because the Rural Fire Service could override it—and he built a house and wanted to plant some roses, would roses be one of the species that council would not take to favourably in terms of what you are proposing or acting on?

**Mr West**—I will go back to my earlier comment: at my first contact with the landowner I say, ‘I am not here to tell you what kind of garden to have.’ So, no, I would not have any objection to a rose. I also would not have any objection to an individual banksia.

**Mr SCHULTZ**—I would like to move on to the fire situation, which has been pretty dramatic here. I can well remember the 1994 fires when I put considerable pressure on the Rural Fire Service to get fixed-wing aircraft to come up from Victoria to help you guys, because the Rural Fire Service had a fixation about fixed-wing aircraft. At what stage following a fire commencing does council call for or declare a section 44?

**Mr Garofalow**—That is not done by council. It is undertaken by the incident controller—generally the Rural Fire Service.

**Mr SCHULTZ**—They make the decision on the basis of what they perceive, without any input from council?

**Mr Garofalow**—Council is involved, yes, but they have the expertise. Council’s primary role is in the planning and preparation stage. In the event of a fire we step back and the suppression agencies are in charge.

**Mr SCHULTZ**—The reason I ask the question is that that is another government agency that does not want to talk to this inquiry. Can council advise the inquiry as to whether in their opinion all resources that are available to the various agencies are utilised quickly and efficiently to suppress fires before they get out of control, for example, any resources that may be available to the Rural Fire Service and the National Parks and Wildlife Service and any other agency?

**Mr West**—As a member of the incident management team I find that the response is very good. As I said before, the suppression agencies are actually getting to the fires much quicker. The old days of looking at a fire and saying from experience, ‘Let’s let it run for a couple of days and see what happens,’ are long gone. They cannot afford to do that any more. The mentality is to get in there and put it out quickly.

**Mr SCHULTZ**—What about the use of various wetting agents, like Phoscheck or foam? Is that a restriction at any stage?

**Mr Garofalow**—That is something you will have to talk to the suppression agencies about. As I say, in the event of a fire council does not have a primary role.

**Mr SCHULTZ**—I will ask another question of council; I will probably get the same answer. Would council like to make a comment on whether money released under section 44 is appropriate and effectively used in the firefighting situation? I ask the question because no matter where we go we get evidence from people are saying that in some instances the money

that is utilised for firefighting purposes following on from a section 44 is not always appropriately used to the extent where it is providing very effective mechanisms for suppressing and assisting in suppressing fires.

**Mr Garofalow**—We can comment only as an observer because we are not directly responsible in the event, but it appears so. In the event of an emergency it is an emergency, which means that basically things are happening fast. If on occasion money is spent in a way that may not be appropriate at other times, in the event of an emergency every dollar that is spent is spent appropriately. Basically, having observed it, I see no problem with the way that is undertaken.

**Mr SCHULTZ**—Thank you. On page 5 of your submission under the dot point, ‘Impact on the environment’ in the last sentence of the first paragraph it says:

In many areas, the fires have had a degree of beneficial action, cleaning up known rubbish dumping areas, weed removal and possibly some feral animal control.

I find that astounding. There is no mention or comment at all on any damage or destruction of native plants or animals.

**Mr Garofalow**—As I said, this council takes protection of the natural environment very seriously and that is absolutely one of the core things that we want to achieve here, along with a range of other things. We, the Rural Fire Service, the National Parks and Wildlife Service and all those involved in fire management ensure that there is absolute minimum impact on the natural environment.

**CHAIR**—Mr West, I think you said before that getting approval for hazard reduction takes between six and 12 months. I think you also said that, as part of that application, the date when the hazard reduction is to take place has to be specified. I find that rather prescriptive. As I am sure you would personally know, there are good days and bad days to do hazard reduction so being confined to a particular date—and the period of time for an approval is long—seems quite incredible. Would you like to comment further on that? Or did I misunderstand?

**Mr West**—I think you took it out of context. A proposal can take many forms, from a simple request for an inspection through to a section 66 or on to the larger scale land, like the national parks, like the areas controlled by Sydney Water and other major landowners. Those proposals are put through to the Bushfire Risk Management Committee. Not all proposals take six months to deal with. In most cases, for the average landowner, for the average property owner, the system takes less than seven days.

**CHAIR**—I am talking about the larger scale areas.

**Mr West**—Sure. Three assessments have to take place for a proposal to go ahead. First of all, a suppression agency or an interested party has to decide what is a fire hazard—whether the property is a fire hazard. That has to go through to a committee. The committee decides, ‘Yes, it is,’ or ‘No, it is not.’ If it does, it goes through to a committee which decides on the most appropriate action. That could be slashing a perimeter or burning the whole lot. They are the two extremes. The final approval goes through to the Bushfire Risk Management Committee. They

contact the landowners in question and give that approval. Once it goes to the suppression agency, they then arrange their own resources for when they carry out that work. Yes, there is a window of opportunity for when they carry out that work, but that could be over a three-month period.

**Mr Garofalow**—Generally, once approval is given, the approval stands for about five years. We usually have more burns approved than we actually have resources to undertake. So over a period of time those burns are implemented.

**CHAIR**—Wouldn't it make a lot more sense for some of the larger areas if there was a long-term plan in place, so that when the opportunity arises within a five- or 10-year plan for management of a particular area for hazard reduction, they would be able to do that, rather than having to go through this approval process? Are there no long-term plans?

**Mr Garofalow**—There absolutely is a long-term plan. Basically, we know our area and we generally try to hazard reduce everything between a set period. That period ranges, depending on the severity of the location, between once every 10 years and once every 20 years—approximately on that schedule. So there is definitely a plan. As Chris said, an area is identified and often a rolling program in that an area might be identified every 10 or 15 years in terms of hazard reduction. One of the benefits we have had with the recent fires is that it has thrown out our program a little because a lot of the areas in which we might have been undertaking hazard reduction over the next couple of years have now been burnt, so we will probably have to reschedule those areas to be burnt maybe in another 15 years, now that they have had a very hot fire run through them. So, yes, there is a program.

**Mr SCHULTZ**—I had a question in relation to the PowerPoint presentation. Under the section 'Blue Mountains City Council primary activities to finance and administer the Rural Fire Service and SES', what sort of money does that cost council? I know you pay an annual fee.

**Mr Garofalow**—I would say it is approximately \$350,000 to \$400,000. I can get you the exact figure, if you like.

**Mr SCHULTZ**—Could you do that?

**Mr Garofalow**—Yes, absolutely.

**CHAIR**—Thank you very much for your time and for your submission this morning. We have received a written submission from Mr Kevin Browne, who we will be seeing shortly. Could a member move that the submission from Mr Kevin Browne be received as evidence and be authorised for publication?

**Mr BARTLETT**—I so move.



[10.05 p.m.]

**PATERSON, Mr Hugh John, Bushfire Representative, Blue Mountains Conservation Society**

**CHAIR**—Welcome. Although the committee does not require you to give evidence under oath, I advise you that these hearings are formal proceedings of the parliament and consequently warrant the same respect as proceedings in the House itself. It is customary to remind witnesses that giving false or misleading evidence is a serious matter and may be regarded as contempt of parliament. We have your submission and we thank you for that. Would you like to make a brief opening statement in relation to your submission before the committee asks some questions?

**Mr Paterson**—Like Mr Garofalow, I am a member of the Blue Mountains district bushfire management committee. I represent the Nature Conservation Council of New South Wales on that committee. Like Mr West, I am an experienced firefighter; I am a deputy captain of a brigade in the Blue Mountains. I think that you will see from our submission that we do agree with the council that the priority of protecting the community from bushfire is at the asset protection zone—and we have spoken about that in our submission, but we have also gone into a few more details about building construction. We are a volunteer organisation and we do not have the resources of the council so I apologise that our submission is not as thorough.

In regard to building construction, we have looked at the Australian standard and are very keen to see CSIRO and fire researchers develop a higher level within the standard so that buildings are able to resist flame attack or radiant heat above 30 kilowatts per metre during those very intense fire attacks, which do not happen very often. We feel that fire-rated building materials make it possible to produce a higher level standard for construction which can resist more intense fire. That would allow firefighters to be less concerned about loss of assets and the committee to be more confident about assets surviving the passage of fire.

The other thing that we feel is very important is community education. There are quite a few members of the Blue Mountains Conservation Society who are also members of the Rural Fire Service and it is interesting to see the mutual concern in both organisations—and also expressed by the council—to increase community preparedness through education. The conservation society fully supports what the Rural Fire Service is doing in terms of the Bushfire Wise program and community fireguard groups, which are getting out there and educating the community so that people are more prepared and know what to expect in a fire, know how fire behaves, and know how to prepare their property for the impact of fire.

**CHAIR**—You mentioned that you are the deputy captain of a brigade here in the Blue Mountains. Is your brigade responsible for a particular area? I know that when a serious fire comes everybody gets called in, but, in a general sense, is your brigade responsible for a specific area?

**Mr Paterson**—Yes. Once again, I was not speaking on behalf of the Blue Mountains Conservation Society when I said that, I was merely giving background information.

**CHAIR**—I appreciate that.

**Mr Paterson**—In our district, each brigade—and I think that this is state-wide but you would have to find that out—has an area of operations so that, if there is a bushfire or an incident in that area, they would respond to that incident. If it is a small incident, the officer in charge of the local brigade would probably be the incident controller for that.

**CHAIR**—Do you also carry out hazard reduction in the region that you are responsible for? Do you have responsibilities in that area as well?

**Mr Paterson**—Yes, we do. Under the Rural Fires Act, hazard reduction is actually the responsibility of the land owner or manager but the Rural Fire Service provides a service to the landowner or land manager in terms of fire suppression capability and the ability to do hazard reduction burning. The theory of it, under the Rural Fires Act, is that the landowner comes up with the proposal, applies for a permit under the new bushfire environmental assessment code and obtains that permit on private land. I would say the practice of what actually happens is that a local rural fire brigade looks at fire history and fire issues in its area and approaches private landowners with a view to carrying out a hazard reduction burn on their land and seeks the cooperation of the private landowners in carrying out a hazard reduction burn.

**CHAIR**—I apologise that I am asking questions about the brigade, but we are taking every opportunity that we can to get as much information as we can from people who have expertise. Does your brigade have any sort of plan as a brigade for your region? We had some information elsewhere in the state of a brigade that used to work on about a five-year plan. They could plan well ahead within their region, the area that they had responsibility for, the different works that could occur. They had plenty of time to do some environmental studies and studies of things that needed to be protected. But they are now working on a one-year plan and, given that the plan could take some time before, they are therefore feeling that they are not able to plan those matters anywhere near as well as they could previously. I am trying to find out whether this is general or is specific to certain areas. Would you like to comment on that as regards any sort of planning within your area of responsibility?

**Mr Paterson**—Planning ought to be done at the district or even zone level. Our area of operations involves only a small area. There are many rural fire brigades in the mountains and each rural fire brigade has an area of operations that is quite small, so there would be very little point in a single brigade making plans for its area of operations in the Blue Mountains to manage hazard reduction burning. It would be very good for a single brigade to manage in its area issues such as community education and to have a regular program of community education street meetings or community fire guard groups. It would be quite sensible for a brigade to identify areas that might need mechanical treatment and to draw these to the attention of council for council to use its powers. But hazard reduction burns, to be effective, have to be reasonably large, so there has to be coordination between the brigades. The brigades in the mountains are grouped into sectors and the group officers and captains of the brigades may meet within a sector to discuss those areas and put recommendations up to the council and the bushfire management committee. That process has been done in our area.

**Mr SCHULTZ**—Mr Paterson, I wish to ask for some information from you with regard to a couple of paragraphs in the section of your submission headed:

(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 and practices.

That is part of our charter. I refer to the first paragraph and compliment you for putting this into your submission:

With regard to damage mitigation of individual properties, retro-fitting of protective items to buildings should be encouraged, eg shutters, metal screens, water tanks, sprinkler systems, etc.

More specifically, I refer to the point that you make in the second sentence:

Councils could give incentives in the form of a rebate on rates, for such fittings.

Would you extrapolate from that as to what you are proposing and how you think councils or state governments could make a contribution?

**Mr Paterson**—I do not claim to have any financial expertise in this and neither does the Blue Mountains Conservation Society, but we do think it is important that there be encouragement for residents to do this. There are a lot of low-income residents in the Blue Mountains and there are a lot of pensioners, so there are a lot of people who cannot necessarily afford to immediately go out and upgrade their properties to make them more resistant to bushfire attack. The council has been doing a very good job with their DCP, maybe in the last decade, but we have got subdivision patterns and buildings going back 100 years that are very vulnerable to bushfire attack which need upgrading and may not be owned by people with sufficient income. We are looking for some sort of scheme that can assist. Sydney Water has been subsidising water tanks recently, and I have found there are quite a few people in the Blue Mountains I have spoken to who are buying water tanks for their properties. That stored water source is a very useful preparation for bushfire. Maybe with some other retro-fitting of features in buildings there could be some incentive either from a state government agency or from council. We are just suggesting that is one way.

I know that the insurance industry already puts a large amount of money into firefighting and that the costs of claims for bushfire for insurance companies is not very great, so they do not have a very great financial incentive. They could not provide a very large reduction in insurance premiums, for instance. Quite a few people are uninsured and that is also a concern. But we are looking for perhaps some funding to be made available so that people can upgrade their properties.

**Mr SCHULTZ**—Thank you very much. I see that, to some extent, you agree with what my parliamentary colleague and the local member made reference to with regard to property owners being refused development on their land due to bushfire hazard and you make the comment that there needs to be some means of government buyback or recompense for that. Would you like to make a comment on that?

**Mr Paterson**—We may be greenies but we are not selfish. It is a problem we recognised: if someone owns some residential land they have an expectation to be able to build on it. However, if that land has major problems with it in terms of flood, fire or erosion issues, then development

of that land may not be appropriate. So council has to be able to refuse development if they feel that a development on that land would be irresponsible or dangerous for the residents.

**Mr SCHULTZ**—I assure you we are all greens; it is just the degree of how green we are.

**Mr BARTLETT**—Thank you for your submission. You make the comment in point (a) in your submission that regular burning and hazard reduction can seriously affect biodiversity. It is true, though, that wildfires of extreme proportions can also affect biodiversity by eliminating some species, isn't it?

**Mr Paterson**—Yes. We have struggled with this in the Blue Mountains Conservation Society. The species that could be eliminated by fire in the Blue Mountains are the Wollemi Pine and the dwarf creeping pine. Both are fire-sensitive species which live in restricted areas where they are protected from fire. They are the only two we know of. These species have obviously coped with the passage of fire through the surrounding landscape for a very long time because they are very ancient species. They predated Aboriginal people in Australia so they predated any human fire management. There certainly have been fires ignited by lightning strikes for many years. It would seem that in the absence of human management these species have survived. They may not survive forever—eventually a fire may get them—but because of the situations in which they are found, where they are not found hard up against more flammable vegetation types, it is not appropriate to hazard reduce surrounding areas in order to protect them.

**Mr BARTLETT**—One of the other submissions says that some of the species in the Mount Tomah, Mount Irvine, Mount Wilson area—the mountain ash, brown barrels and black ash—have basically been eliminated from that area because of intense wildfires, whereas previously a regime of hazard reduction over the centuries, or at least over the recent decades with Europeans settlement there, had managed to keep those wildfires at bay and there were great stands of these trees but they have been eliminated in recent years since National Parks has taken over there. Are you disagreeing with that view? I would be interested in your comment on that.

**Mr Paterson**—Yes, I am. Those are tall, open forest species. Their natural fire regime is probably similar to the mountain ash forests in Victoria. They are forests that tend to be killed by very hot fire and then regenerate. There is seed release from the canopy and seedling recruitment. So there is a fairly even-aged stand. For the first few decades—I will not put a figure on it—that young forest is very vulnerable to fire. If there is a second burn when the forest is very young, those species will be lost. It is not so much about intensity as frequency. After that 50-year period is over, low-intensity fires can burn through a forest without causing any problems. Eventually the trees get to an age where they senesce and stop producing seed. If there is not a big, hot wildfire before those trees senesce—and it might be 500 years since the last one—there will not be further recruitment and eventually the forest will die out. Then there tends to be a movement back to rainforest.

At Mount Wilson the rainforest is in areas that are protected from fire, where fire does not occur, on the richer soils. In the tall, open forest those species you described are growing on the richer soils where fire does occur but where the particular fire regime is not the same as would occur on the more common woodland-type eucalypt vegetation around here.

**Mr BARTLETT**—That was just my introductory question.

**Mr Paterson**—That was an introductory answer!

**Mr BARTLETT**—I want to pursue the issue of hazard reduction near assets. In your submission, at point (e), you said that the appropriate place for hazard reduction is near the assets being protected. I know it would vary, but how close to the asset does that need to be? For instance, in bushland conservation zoned areas, as I understand it—and I am happy to be corrected—the RFS recommendation in those asset protection zones is between 30 and 100 metres, depending on the slope of the land. In your view, is that appropriate? Secondly, what sort of hazard reduction is appropriate? Is it just undergrowth, understorey, or is some removal of trees necessary, particularly given the propensity in a wildfire situation for the combustion of trees, crowning and so on?

**Mr Paterson**—Protection of the assets is going to be a matter of the depth of the defence. Any one measure alone is not sufficient. A very good document was produced by Rod Rose of Bushfire and Environmental Services. The document was a protection strategy for the southern side of the Blue Mountains. He looked at five issues that are very important: building design, the asset protection zone, an interface control line, a mosaic hazard reduction area and some sort of outer control lines. In our bushfire risk management plan all of these things are important, and I would add community education to that. Hazard reduction is simply manipulating the fuel to reduce the intensity of future fires. That can be by burning or other means. Around the house it is appropriate that lawn mowing, gardening, tidying up, clearing flammable vegetation, good building maintenance and retrofitting be done. As you said, the width depends on the slope and the vegetation community. It probably also depends upon how easily that asset can resist fire attack—in other words, the standard of construction under the Australian standard.

**Mr BARTLETT**—But, to cut to the chase, is it feasible that in some situations you would need to remove a substantial amount of vegetation for up to 100 metres from the house?

**Mr Paterson**—It is feasible, but only in a small number of circumstances with a poorly prepared asset in terms of other features. I would suggest that in a lot of cases you could get by with a narrower permanently cleared asset protection zone than is specified in planning for bushfire protection, as long as the asset was easily able to survive bushfire attack in terms of design and construction.

**Mr BARTLETT**—But there are a lot of existing houses that cannot be changed, so the question is what sort of freedom ought landowners have to protect their own property by clearing an adequate distance from their house.

**Mr Paterson**—As a firefighter, I would be happy to see them clear the maximum; as a greenie, I would be happy to see them clear the minimum.

**Mr BARTLETT**—There's the rub.

**Mr Paterson**—There's the rub, yes. It is going to be site specific: it is going to depend on who lives there. As a community educator in the Rural Fire Service, I am not going to walk up to a householder and say, 'This is no good; you must clear another five metres.' I am going to want that person to understand the issues and to think about how fire might behave when it comes to them, and how they might behave when the fire comes to them—whether they will be physically

and mentally prepared to defend their property. There are many factors there. I am sure it is very hard for council when they are looking at a development application and weighing up all those issues to make a decision. They eventually have to specify something down to the nearest five metres; that is very difficult and I cannot give you an answer.

In terms of removal of trees and other understorey and crowning, it is important that you do not have a continuous canopy of tree crowns leading from the bush to the house, so there may need to be some thinning of trees. It is not good to remove every tree around the house either, because some trees around the house can reduce wind speed and can intercept ember attack and provide some protection for the house. So, it is not necessarily appropriate to remove every tree around the house, but it is certainly not appropriate to have a continuous canopy of trees from the bush right up to the house and overhanging it. Even as a greenie I would advocate the removal of a certain number of trees close to the house.

**Mr GAVAN O'CONNOR**—Mr Paterson, congratulations on your submission and thank you for appearing. I would like to take you through a few aspects. I think it is very important that we get your perspective as a self-professed greenie on some of these issues. You state in your submission under (a), the extent and impact of the bushfires on the environment:

Some areas (eg parts of the Grose Valley) have lost biodiversity due to frequent wildfire.

Could you explain the basis for your conclusion there?

**Mr Paterson**—There are vegetation communities in the Grose Valley. There are rainforest communities and tall open forest communities that are not coping well with the frequency of wildfires we have been having. Species are being lost down there and the extent of vegetation communities is being reduced by frequent wildfire—it is not by hazard reduction; it is by fire started by lightning and by arsonists. In this case, it is important that we do not see more prescribed fire in the Grose Valley as a solution. What we really need to do in our fire suppression efforts is try to minimise the area of the Grose Valley that is burnt. That is what happened during the Mount Hay fire: there was a very vigorous attempt to reduce the area that was burnt in the Grose Valley. There were alternative fall-back strategies of back-burning very large areas—virtually all the Grose Valley—but that was not necessary and efforts by firefighters meant that the area burnt in the Grose Valley was minimised, within a very difficult situation.

**Mr GAVAN O'CONNOR**—We have heard evidence on this whole issue of hazard reduction and hazard reduction burns that there is a paucity of research information at the local level that would enable communities to make considered and reasonable judgments about where they should burn, when they should burn, at what frequency et cetera. Do you think the agencies here, in the wake of the recent experience of the rather intense fires, have the research capacity or the knowledge at this point in time to make effective judgments about these matters in the future?

**Mr Paterson**—I think they have the knowledge to make effective judgments but they certainly do not have perfect knowledge and they cannot make perfect judgments. But we are involved in managing this landscape and we make the best judgment we can with the information we have. The conservation society strongly supports further research into fire ecology, and we have put that in our submission, because we do think that better decisions could be made with more information. Nonetheless, decisions have to be made now with the

information we have. The cooperative research centre on fire has been set up, so it will be encouraging if we see more data coming out of that.

**Mr GAVAN O'CONNOR**—I refer to section (d), which was brought up by the member for Hume. In this section you state:

Clearing of asset protection zones as required by current legislation can have an adverse effect on the environment and biodiversity, but this needs to be balanced against the need for property protection and requires further research.

How do you actually achieve this and who is the arbiter? Who enables us to get this balance? We are saying that individual landholders must take greater responsibility and we are saying that there needs to be asset protection zones. We have a community that says that it may affect biodiversity and those sorts of things. I am interested in how the local community can achieve this balance, because obviously there is a community here that has concerns about the environment and that wants to live here and perhaps does not want to do the things that are necessary to protect the environment and their properties.

**Mr Paterson**—In terms of clearing beyond what is necessary for an asset protection zone, that is a council matter, because a development application has to go in for construction of a dwelling or whatever. If a person wants to clear beyond what has been approved as their asset protection zone then I guess they have to put in another DA to council to do that. And that would not be a Rural Fires Act matter; that would be an Environmental Planning and Assessment Act matter. In terms of the minimum clearing, that is where council has the section 66 power—if they feel the assets are at risk because of the fuel, they can serve a notice and see that the fuel is reduced mechanically.

In terms of planned activities by land managers or the Rural Fire Service or council, there can be reviews of environmental factors and assessments done as part of the planning process. As environmentalists and firefighters, we would have liked to have seen the southern strategy, the interface control line, in place before the Mount Hall fire which caused it to be built in an awful hurry. Some planning work had been done, but as a conservationist I would have liked to have seen the whole thing planned and environmental impacts of the operation assessed and the route and the construction methods planned so that they avoided sensitive areas. It was heartbreaking after that fire to see that residents' property—their land, not their buildings—had been damaged by bulldozers driving down very steep gullies and causing masses of erosion. Those things would not have happened if it had been planned in advance, but the planning had only got to a certain stage by the time the fire arrived. Once a fire is here, there is no time for planning; we just have to draw a line on the map and get on with it.

**Mr GAVAN O'CONNOR**—With respect to the building codes and the appropriateness of existing planning and building codes, you express the view that current codes are not adequately enforced. I presume you are referring to the Blue Mountains City Council document; they have a code and you are saying it is not adequately enforced?

**Mr Paterson**—Maybe the word 'enforced' is too much of an expectation, but as conservationists we read these codes and we have an expectation that they will be followed like black letter law. It is probably incorrect for us to assume that these things are black letter law. There is a lot of flexibility and they are matters for consideration. We are saying that over the

last 10 years, when DCP 26 for building in bushfire prone areas has been current, houses have been built in bushfire prone areas with design features that are not appropriate for that area, such as complex rooflines that catch embers, timber decks that can ignite during a bushfire, and various other design features that we look at and think, 'That's wrong, that shouldn't be there.' So that is what we are saying. The new regime of planning for bushfire protection will provide consent authorities with more power to enforce or at least make sure that construction standards are adequate for the areas in which those houses are going up.

**Mr MOSSFIELD**—I have a couple of quick questions. On the first page of your submission, under heading 2, you say that climate change due to global warming is leading to more frequent El Nino events, and that the federal and state governments have not moved to improve or control the changes. Could you expand on the last comment relating to federal and state governments not moving to improve or control? What needs to be done?

**Mr Paterson**—The safest thing would probably be to withdraw that statement. There has been some action by the federal and state governments but we do not believe there has been enough. We would like to see—

**Mr MOSSFIELD**—Can you give us some examples of what further action needs to be taken?

**Mr Paterson**—The Kyoto protocol might be a good idea, for a start.

**CHAIR**—How will signing a piece of paper change the climate?

**Mr Paterson**—I do not think signing the piece of paper is the key, but implementing those commitments is important. I do not think that Australia's special pleading—that we can increase our greenhouse gas emissions while we expect other countries to maintain theirs—is fair. I think Australia should be maintaining and eventually reducing its greenhouse gas emissions. At the state government level there is encouragement for renewable energy. Obviously we would like to see more of that. We would like to see energy efficient housing. There are many things that can be done. It is probably not the province of this committee to worry about that, but the comment we are making is that, in terms of bushfire, we do think climate change is making bushfire more frequent and more intense. None of this is certain. There are levels of confidence in the science. I would not accept that it is guesswork. They are predictions based on evidence and the evidence is not 100 per cent conclusive, but the level of confidence is increasing year by year that we are facing climate change, that factors like drought affect bushfire, that lightning storms start bushfire. These are climate related, so we should certainly be concerned about them. Once again, we do not know when the next fire is going to occur, but if it is a terrible day for hazard reduction today, it might be a terrible day for wildfires by the time summer gets here.

**Mr MOSSFIELD**—You make the point about community education, which we would all agree is important. How effective is it in this area? Who carries it out and what is the community response?

**Mr Paterson**—With respect to who carries it out, council does some in terms of mail-outs with rates notices and that type of thing. In terms of fire awareness week, there are press campaigns. The New South Wales Fire Brigades do it with their community education initiatives. They also have a community fire unit program, which is about installing equipment



so that landowners in fire prone areas can mop up fires when they do occur, and they actually provide equipment and training for residents in a street to look after their own houses.

The New South Wales Rural Fire Service does it very effectively, I believe. I do not have the figures in front of me but I can get them in terms of the Rural Fire Service and the number of meetings we have had. Where we have had street meetings ahead of the last couple of fire seasons we feel that people have been much better prepared. They have coped with fire better and they have been able to defend their properties, and we feel that it has been effective and worth while. It seems that more brigades and more firefighters are getting interested in community education in the Rural Fire Service.

There has to be a lot more done. It is a fairly new program. I think that it is a good model, a model that is being adopted throughout the state in the Rural Fire Service. It is a model based on the Victorian experience, and I guess you will speak to people in Victoria about their community education initiatives. But I think it is well worth while to inform people. More can be done. The Blue Mountains Conservation Society is organising a community education presentation for its members. We are concerned as a community organisation that is interested in bushfire to educate our members about preparing themselves for bushfires as well.

**CHAIR**—Thanks, Mr Paterson. We will have to call time there, I am afraid, as we are getting a little bit behind. Thank you very much for your time this morning and for your submission as well. It is much appreciated.

[10.42 a.m.]

**BROWNE, Mr Kevin (Private capacity)**

**NOTT, Mr Donald William (Private capacity)**

**CHAIR**—Welcome. I think you were here this morning during proceedings so you heard the explanation that I gave about the hearing and aspects to do with evidence so I will not repeat that for you. We have Mr Nott's submission, which we previously received, and Mr Browne's, which we have received today. Would each of you like to make some opening remarks before we proceed to questions?

**Mr Browne**—I have written three pages here which relate to hazard reduction more than anything else. I am aware that this committee has had a lot of input from all sorts of things. I assume that the purpose of this committee of inquiry is to find out why bushfires are still destroying houses, other buildings, fire trucks, firefighters and huge tracts of bushland and paddocks of fodder at a time when firefighting forces are bigger and better equipped, with more competently trained personnel than at any point in our short history. Huge aircraft are hired to drop incredibly expensive water or retardant on fires. Fire tankers are moved across the state boundaries to areas of greatest need. But fires still get the upper hand. Why? What is wrong? How do we address the problem?

Somewhere in the complex mathematics of fire behaviour is a common denominator. The fact of it makes bushfires unmanageable. What is it? Drought, temperature, wind and humidity all contribute to unmanageable fire behaviour. Property can and has been lost in the Blue Mountains on cold days, calm days and four hours after rain, but never in areas adjacent to low fuels. Heavy fuels at the urban bushland interface set houses alight by direct flame contact, radiation and windblown burning debris.

These fires kill and injure residents and firefighters. They involve huge expenditure, including aircraft hire, bringing firefighters from intrastate and interstate, food, accommodation, transport, fuel, repairs, loss of wages and family disruption. Bushfires cannot be avoided. They will occur most summers, and the local firefighting forces will always be necessary. But sensible fuel management can reduce the intensity of fires so that they can be managed with local forces, with reasonable safety to those firefighting forces, without loss of life or injury and without property loss. Fuel is anything combustible—anything that will combust. Concrete steel will destruct if subject to enough heat from fire. For this discussion it is native vegetation—bark, leaves, twigs, grass, groundcover and low understorey—which is measured by throwing a wire square of a given size onto the fuel, collecting the fuel inside the square, oven drying it and weighing it.

Ground fuel in the Blue Mountains accumulates at 1.7 tonnes per hectare per year for the first six years. It then reduces to 0.6 of a tonne infinitum as decomposition takes place. Five years of fuel accumulation per hectare is 8.5 tonnes; 10 years, 12.5 tonnes; 15 years, 15.5 tonnes and 20 years, 18 tonnes. If you add to this up to three tonnes per hectare for understorey—shrubs, ladder fuels—in the short term you are looking at an accumulation of two tonnes per year; over a longer period you are looking at one tonne per year. This measurement of ground fuel excludes the tree

canopy—the bark on fibrous bark trees. Anyone who has cut down a large eucalypt will attest to the fact that each tree head has at least a quarter of a tonne of fire fuel in leaves and small branches. Extrapolate this by the number of large trees on each hectare—which could be 30, 50 or 100—and in a crown fire situation you have added another 25 tonnes of fire fuel to the equation, which is above the firefighters' heads where the wind is stronger and there is little impediment to the windblown burning debris.

I have always been aware that Luke and McArthur's fire thesis was faulty, as is their fire danger meter. It was designed for low-intensity control burns that ignore the complexity of fire behaviour during a major bushfire. I have only ever used it in a classroom exercise or after a major fire had been extinguished to test its validity. It was always out by a factor of three to five times. Firefighters with the most modern equipment—tankers, pumps, foam, protective clothing, training and aerial support—still could not fight the fires of the last two summers' intensity by direct attack. They could only do so by resorting to back-burns, which become as intense as the main fire within minutes of ignition, trap wildlife between the two fires, totally destroy vegetation, increase the size of the fire, create up-drafts that carry burning debris on wind currents across and behind the defence lines, and endanger and kill firefighters. If there is an answer, it is to reduce or remove the heavy fuel loads before the fire season with low-intensity burns, slashing and trittering, and it needs to be done at the bushland-urban interface—500 to 1,000 metres deep on a rotational basis. As well as this, some broadacre hazard reduction across known fire paths north-west and south-west of the mountain towns is necessary: the Grose Valley, the Megalong Valley, Kings Tableland, Erskine Range and Florabella Pass, to name a few.

This proposal requires an overall master hazard reduction plan, with Oberon, Blaxland, Lithgow and Blue Mountains councils, the National Parks and Wildlife Service, the New South Wales Forestry Commission and the Rural Fire Service being involved. This would not be a toothless tiger like the district committee, which was composed of police, SES, Air Force and anyone passing by on the monthly meeting day. These were people who knew absolutely nothing about bushfires but had a role as the mountain towns burned down. In short, re-form the bushfire prevention association of the late fifties and seventies, call them what you will, put the right people on them and give them *carte blanche* to draw up and implement the fuel management procedures necessary to protect towns, houses and residents from the destruction by bushfires, irrespective of land tenure and the policies of the land owners or guardians and free from interference from conservationists, environmentalists and government agencies like the EPA who have lost their way in the bureaucratic maze. If we do not pull out all stops to effectively control and reduce the impact of bushfires on the community then homes and lives will be lost, incomes affected and the Australian economy severely affected.

**CHAIR**—Thank you, Mr Browne. Mr Nott, would you like to add anything?

**Mr Nott**—Yes, I would. I was on the district committee here for 13 years. I have been a deputy captain, a captain, a deputy group captain, a group captain and a group leader in the time I have been in the fire service here in the Blue Mountains. I was in another fire service before, but I have been in the Blue Mountains since 1976. It is fair to say that I have probably had more command and control of major fires as a volunteer than any other volunteer that I am aware of. In fact, it is fair to say that I have had more control and command than most fire control officers these days, because that was in an era in which they would give you a thousand people and tell

you, 'Go and put the fire out.' In that respect, I would like to make one point to the committee about what happens.

In the time I was on the district committee, I fought regularly every meeting to facilitate hazard reduction, and it just got tied up in bureaucratic, environmental or legislative issues. The system just slowed down and slowed down. So you would fight and you would say to people on a day like today, 'We really need to approve these burns, we need to get on with this and we need to encourage the brigades to go out and do it—and remember: they do it in their own time for free and the community is the total beneficiary of this.' This would fall on deaf ears. You would fight off mainly the National Parks and other parties at the committee until there was a roaring fire coming down from out of the Grose or out through the back ranges out here. Then they would come to me and say, 'Don, what are we going to do?' and give you a few D9s. I have put a black line in and have been in charge of lighting it twice. What happens when you do that is you have got a huge fire coming down and then you go on light another huge fire and send it straight back at that other huge fire. The result is environmental genocide.

The real rub and the thing that makes me the most bitter is, after you do this and you save all the houses, they march you down the main street and tell you are a bloody hero. That is just ridiculous, because this is preventable. In this state—and I presume in other states—you have two fire services. They should have the carriage of suppression and mitigation, and everybody should have to work through them. You cannot have a situation where the National Parks go out and say, 'This is a class 1 fire and were not going to do anything about it. We'll fiddle around until it gets to a class 3.' By that stage, in this country, it is far too big and some idiot like me is going to come along with my bulldozers and do enormous damage and light back-burns. Up here, when we put back-burns in, they get up in the order of 40 or 50 kilometres. The last one I lit went from Glenbrook to Wentworth Falls. I was in charge of the section from Glenbrook to Woodford. I can tell you that when we lit that back-burn, the fuel was so bad we used miles of hoses and spent thousands of dollars. Houses were at risk and some houses were damaged because the fuel levels were so high. They were so high simply because inadequate hazard reduction had been carried out.

**CHAIR**—You said you have had experience up here since 1976. How many years experience have you had elsewhere prior to that?

**Mr Nott**—I was at Coonabarabran. At that time I was a kid about 10 years old on the farm out there. We did not have anything like we have on farms now—a ute, a tractor with a carryall on the back, a bit of water, some leather boots or maybe a knapsack. When I was a real young bloke, one of my jobs was to carry the message on a horse from one side of the fire to the other. Communications were a little bit archaic!

**CHAIR**—Mr Browne, how long have you been involved in firefighting and related matters in the Blue Mountains?

**Mr Browne**—About 52 years.

**CHAIR**—You have had the odd day of experience!

**Mr Browne**—I have been at most fires but all the major fires, such as the fires of 1952, 1957, 1968, 1977, 1979, 1983, 1994, 2001, 2002 and 2003.

**CHAIR**—I think you were in the audience earlier on when the Blue Mountains City Council gave evidence.

**Mr Browne**—No.

**CHAIR**—You were not; I am sorry. They painted a picture that everything was pretty hunky-dory between the council, the RFS and the National Parks and that everybody gets on brilliantly, everybody works together and does a great job for the whole region. Is that the view of the volunteer bush firefighters in this region?

**Mr Browne**—It is not my view of past history. At the coronial inquiries that follow these big, bad wipe-out fires, Blue Mountains City Council has always been severely criticised, as late as 1994, for not implementing what used to be section 13s—which are now section 66s—and for not doing something to reduce the fuel on their reserves and within the town boundaries, and also for not policing the building codes. The previous speaker mentioned all the—what I call papier-mâché houses—rough-sawn Western red cedar houses out on the end of ridges built up on poles. Those sorts of houses were still being built up to several years ago. Maybe they are still being built—I do not know. I do not believe the council is enforcing section 66 to the extent that it should. As of now, the council is certainly working better with respect to its building codes. One problem with the codes, when building in fire prone areas, is simply that on steep slopes you need a protection zone, which is not possible inside a small block of land. The council is saying that you cannot go over the fence into the National Park or wherever. It is saying, ‘Let’s ignore the 20 tonnes of fuel out there because it belongs to somebody else. You must put your fuel-free zone and your hazard reduce zone inside your block.’ If it is steep, sloping land facing the west, north-west or south-west, you need a greater distance than is possible inside that yard. So it is asking the landholder to do the impossible.

**CHAIR**—Perhaps section 66 should apply to the land on the other side of the private land?

**Mr Browne**—It used to, more or less, when it was a section 13. If you were to go back a bit in history, if there were a problem outside a resident’s boundary, some hazard reduction was done out there. Whoever owns the fuel and the land owns the fire—if it were the National Parks, they accepted that they had a responsibility. So that when a fire comes roaring up to the back fence throwing embers and radiated heat et cetera, that fire belongs to the National Parks.

**CHAIR**—With the experience both of you have in the area, you would know the landscape pretty well and the types of vegetation. The committee is receiving a variety of evidence on the impact of fire on biodiversity. In various parts of the country it is different. The argument is about whether more frequent, lower intensity hazard reduction fires have potentially more of an impact on that biodiversity than the high intensity wildfire that might occur every eight years. Statistically, over the last 100 years wildfires in the Blue Mountains occur about every eight years—sometimes down to two or three years, but the average is about eight years. What is your view of the impact on this environment of those two different types of fires?

**Mr Nott**—If anybody here has read Tim Flannery's books or they have looked at any of the old pictures of when Macquarie or Blaxland, Lawson and Wentworth came through the Blue Mountains, they will know that the blue gums, or *deanii*, forests here had grass underneath. The understorey was not there. Governor King said in a letter to the colonial secretary that, if we do not start to follow the regimes of the Indigenous people here, we are going to starve because we are going to continue to burn out our crops. They had a wheat crop at Parramatta in Governor King's time that they fought all night and lost a fair bit of. He wrote back to the colonial secretary in England, who was of course well-equipped to make a decision. It is evidence that no decision has been made, and still has not.

It is my view—and the view of other people as well—that when the Aborigines had carriage of the country they could not put out fires naked. It would be a hard job. So what used to happen? They would light fires to create green pick so that kangaroos and things would come in that they could eat. And there would be lightning strikes. These were naturally occurring events and they would burn until a number of things happened: either it rained and they went out, they ran into something like a wet gully rainforest where they went out of their own accord, or they went into previously burnt areas.

Our country has evolved like this. The problem we have got with all this talk of biodiversity, seed banks and everything else is that we have failed to accept that that is how the country evolved in the first place. You do not have to be a rocket scientist to work that out, but obviously the people who are going to universities are not getting it in their degree courses. I will give you an example. In the Blue Mountains here we fought for three or four years to burn off a portion of land which is currently a development down at Blaxland and we could not get approval. It got so bad that we had captains of bushfire brigades resign over the issue. Finally, when the last fire came down—the Mount Hall fire—and we were planning the back-burns, we included that portion in that back-burn so that it would finally get burnt. That was held up for three or four years.

You may say that it is bad that these things get held up for three or four years. What the committee needs to understand is that when that happens, you also have a downgrading of the volunteers' enthusiasm. If it is so bad that a captain resigns over the issue, what effect is it having on the brigades? What effect is the issue of hazard reduction having on the brigades' overall morale? It is a damn sight easier for them to polish the truck than it is to go out and do hazard reductions, which is what we used to do practically every weekend to protect the town.

In answer more directly to your question about the biodiversity, fuel levels and whether it should be burnt should be based on the amount of fuel there. If there is no fuel there and it is not a risk why would you want to burn it? That is ridiculous. You should not let the fuel around the bushland urban interface get to dangerous levels.

In 1994 they tell me I approved so many million dollars worth of helicopter flights. In the last lot of fires there is hearsay evidence—but I am sure it is procurable—that New South Wales spent \$130 million on helicopters. If you pick up the news any day you will read that someone is whingeing about school teachers not being paid enough, that we have not got sufficient beds in hospitals or that the rail system is breaking down. What are we doing? We are funding helicopters to put out fires that we probably could prevent. I know that I am at cross-purposes with the government and the commissioner of the Rural Fire Service when I say this but

anybody who believes that hazard reduction would not have made a difference to any of the recent wildfires is living in fairyland. Every drover in the country knows that if it is a cold night you chuck another log on the fire. Without the fuel there cannot be the high intensity fire.

**Mr Browne**—There is a safety factor here. If you put your firefighters into heavy fuels, the risk of them being injured, burnt or trapped increases. As the fuel doubles, the intensity of the fire doubles. If the fuel quadruples then the fire intensity quadruples. You get flame height and crown fires and you create a system on the fire ground which is very, very dangerous for the firefighter. If you have low fuels you can go in and put out a fire with four-, five- or six-foot flame height by direct attack in reasonable safety. These firefighters are volunteers and they get injured and killed, as do National Parks people. I believe this is unnecessary. We need to do something better than that.

**Mr BARTLETT**—I think you have both summed it up very well. I have a quick question to each of you. Don, in response to the 2001 fires the state government enacted legislation which came in in August last year. I put the question to council this morning—you were not here—that that raised the possibility of some blocks of land being sterilised or quarantined and not being able to be built on. What is your view of that? You have a fairly good understanding of fires and real estate in the area. Is it your view that that could be possible?

**Mr Nott**—Like Hugh, I was on the district committee when we invented DCP26. My view was that DCP26 was working pretty well up here and I am a real estate agent and I do a lot of work with developers. They had all accepted it. A little bit of kicking and screaming went on as you would imagine but it was accepted and it was working well. To try to centralise in each council area the whole process was going back to the old days of the state planning authority where they had a centralised approving authority. We would be much better served to have every council have to prepare a DCP26 such as we had up here and have that reviewed by the state planning authority and the Rural Fire Service, rather than trying to make the Rural Fire Service the approving authority.

What we have effectively done up here, as Hugh pointed out, is sterilise a whole lot of land. I have said this to previous coronials: if a piece of land is zoned residential it is a reasonable expectation that someone should build a house on it. If you want to stop people building a house on that through legislation then you have to turn around and compensate them. I think that is only fair. In many cases I think this legislation was brought out to appease people rather than to produce the result. It is certainly not producing the right result because it has caused a lot of trouble.

**Mr BARTLETT**—We have the situation where potentially people have worked and saved hard to buy their block of land and the state government has enacted legislation that will prevent them building and they will not be compensated?

**Mr Nott**—Absolutely. I have had young couples and other people in my office in tears over issues like this. In some of these places, with appropriate hazard reduction and building controls, it would not be difficult—they would have been able to build houses there and that would have been okay. It is my personal view that this is almost a way to stop development. If it is, I think it has been inordinately successful.

**Mr BARTLETT**—I have one quick question for Kevin. You talked about hazard reduction and you made the case very strongly. You suggested an area 500 to 1,000 metres deep at the urban-bush interface. How frequently would you envisage that being done or does that really depend, as Don said, on what level of fuel is there?

**Mr Browne**—It depends on the fuel accumulation, which is related mainly to the canopy and the type of vegetation, but probably every four to six years. In grassland, it would have to be done every two years. However, if we are talking about further west in the rural areas, it does not have to be burnt—it can simply be grazed through a system which is put in place. If it is private land that adjoins the national park, for instance, the land-holder is told that he has to graze those paddocks up against the park on a rotational basis every two years so that you do not get this accumulation of fuel outside the park or reserve. But, in the mountains, it needs to be every four to six years. It does not all have to be done in one go. You do not have to go from Katoomba to Glenbrook on that side of the line. It has already been done to Wentworth Falls, so you are looking at only some areas. If an area is done in one year and another area is done a couple of years later, it provides biodiversity. When you are doing one area the wildlife is able to move into the other area and there is high protein fodder there for it, because it was burnt off a couple of years before.

**Mr SCHULTZ**—It is my understanding that, between you, you have about 100 years of experience in fighting bushfires. That is not a reflection on your ages, but it is certainly a reflection on the courage, concern and commitment that you have had to your community and to the environment over that period of time and I compliment both of you on it. From my point of view, it is sad that people like you, who have spent decades doing what you do in the interests of the community, are not listened to a lot more by the so-called experts. If you were, we would probably not be sitting here today in this inquiry talking to you.

Would it be fair to say that, taking into consideration the comments you have made with regard to the National Parks and Wildlife Service—and I am trying to be fair and balanced here, despite what people might think about my comments in the past—the insatiable appetite and drive by successive governments, not just this government at the state level, but successive governments, to increase the size of our national parks and to close up more and more of the national parks into wilderness areas has created an enormous pressure on the National Parks and Wildlife Service personnel? When I say that, it is in the context of not having the manpower or the resources to be able to handle and appropriately manage the land mass that is under their control. Am I being fair in saying that?

**Mr Browne**—Yes, I believe you are. I was a national park ranger for 25 years. I was the first ranger employed in the Blue Mountains National Park in 1960 when the park was dedicated. It was under a trust in those days—and that was seven years before the national park service was thought up by the then Minister for Lands, Tom Lewis. In those days the park boundary was behind the big transmission lines, several hundred metres out of the towns. In the Blackheath area it was on the east of the Grose River. That large strip of land that was still crown land outside the national park was where a lot of the bushfire brigades did their hazard reduction. It was land that could be managed without coming up against the restrictions of the national park.

Over the years the people managing the national park system have moved the boundary up to the towns and in fact into the towns. There is a road in Blackheath where there are a dozen



houses up that side of the road and they have moved the national park right up opposite them. If you go down the highway to Leura, the national park is almost on the highway. This is land that they really do not need. It is land that has been modified by people using it. It has been modified by people cutting wood out of it, burning it off, walking their dogs into it and throwing their rubbish onto it. It is simply land that has no value to National Parks at all. It is something that National Parks have done because they have an agreement with the Department of Lands that any land that belongs to that department that they are seeking to get rid of by sale or giving away, they have to notify National Parks that a section of land is becoming available and National Parks simply take it and add it to their estate.

**Mr SCHULTZ**—Would I be correct in saying that in the scenario that you have just painted—where the national parks have come up to the urban interface—if that small section of land had control burning done at the appropriate times of the year, a) it would make the urban inhabitants and the urban infrastructure a lot safer from wildfire and b) given that that land would be able to be back-burned or the fuel reduced in it, it would not have any detrimental effect on the biodiversity of the remaining part of the national park?

**Mr Browne**—It would be half of one per cent of their estate. It would be minimal. If it were treated properly it would be opened up, the understorey and the ladder fuels would be taken out of it, it would regress back to what Don said earlier when the Aborigines were managing it, and the people of the adjoining towns would use it. They would walk their dogs in it. They would go out and commune with nature. If you head off into the national park now, the understorey will simply rape you unless you are on a constructed track. There are all sorts of wattles, tea-trees and hakeas and they will simply tear you to pieces. You have your defined tracks, your wallaby tracks, and if you get off those you cannot go anywhere. If this buffer zone—if we want to call it a buffer zone—was treated, slashed, burnt off or whatever with the management criteria that you put in place, it would just become a park on the perimeter of the town and people would get some benefit from it.

**Mr SCHULTZ**—Do either of you gentlemen have any knowledge or experiences with regard to National Parks closing off fire trails or making fire trails impassable? This in itself, in my view and from my experiences in the Kosciuszko National Park, creates a death trap for volunteers going in there to fight fires. Do you have any knowledge of that?

**Mr Browne**—It has been done everywhere. It has been done on the mountains. I went to fires in the Pilliga; it was done in the Pilliga. In places they have taken dozers in to actually roll huge boulders into place. They have put in steel gates. Go back to 1957: most of Leura, Wentworth Falls and part of Bullaburra and Lawson were destroyed by fire, 200 homes were burnt, eight people were burnt to death and guesthouses, shops, the post office and the Baptist church were also burnt. After that, there was a commission of inquiry into what should be done about fires coming in from the Grose and burning down the mountain towns. The inquiry found that there was a need for fire trails going out along all the ridges so that distant fires from lightning strikes or whatever could be attacked when they were small and stopped from coming into the towns.

To do this, a bushfire prevention association was put together. It was given a charter to construct all these fire trails and at the same time put in some dams for water, some helipads and various other things and also to assist in re-forming the bushfire brigades on the mountains and doing hazard reduction. Five hundred kilometres of fire trails were put in on the Blue Mountains,

and National Parks have closed probably a third of them. National Parks simply looked at them and said, 'This trail has no fire advantage.' But what they were really saying was, 'It has a high maintenance cost and therefore we don't want to do it. So we will simply shut Linden Ridge, which goes for 15 or 20 miles out to the edge of the Grose, because it's too difficult for us to maintain it to a reasonable standard.'

**Mr Nott**—As Hugh will remember, the district committee recommended that some trails be gated and locked to keep the vandals out, because not only are they an access point for people who want to light fires and who get in there and make a lot of mess, but the other thing that Kevin did not mention is that a lot of these trails in themselves—if they are not adequately maintained, if they are not made wide enough so that there are turning circles and the like and if one side of them is not fuel reduced—can be death traps. It is part of management of the whole.

**Mr SCHULTZ**—Can I take you back into history a little bit, to the fires here in 1994 and the fires elsewhere in the state in 1995 and the coronial inquiry that flowed on from that in 1996. A number of recommendations were made by the coroner at that time. Amongst the recommendations, although it was not picked up, was the recommendation by the coroner that the current structure be split in two, having the Rural Fire Service running autonomously on its own as distinct from the urban brigades, and the current bushfire council, as I think it is called, being disbanded and a board of independent commissioners commissioned to undertake the oversight of those two brigades. What are your views on that particular recommendation by the coroner in 1996?

**Mr Nott**—I think it is quite reasonable and it is in just about every state in Australia that you have a metropolitan fire brigade and a rural fire brigade. But what you do not need is forestry having control of their land—and they do generally manage their land well—and you do not need the National Parks trying to control the vast tracts that they own. All the people that are land managers, be they councils or otherwise, should have to report back to an approved authority. If you had the two authorities, I am sure it would work quite well. But at the moment you do not have that situation, because, if you read our act, Forests, National Parks and numerous other people are fire authorities in their own right. Effectively they have the same authority as the Commissioner of the Rural Fire Service or the commissioner of the metropolitan brigade.

**Mr Browne**—As you said earlier, they do not have the manpower or the resources to fight large fires on their land, so they then ask for the assistance of the Rural Fire Service. If it is good enough for the Rural Fire Service to fight their fires and put their lives on the line, surely it is good enough for the Rural Fire Service to do the fuel management.

**CHAIR**—We will have to keep moving, I am afraid, because we are going to run out of time.

**Mr ORGAN**—Mr Nott and Mr Browne, after that presentation, I feel like spending about an hour asking you various questions and making various comments, but we have only got a minute. Mr Browne, you said that, since National Parks has closed a lot of land, it has become overgrown. I always thought that the Blue Mountains was a very lush, rich area and that was one of the reasons it took white people a long time to get here. It was not a grassland area as well. I think it is a real furphy that the so-called history of this land is one of Aborigines carrying out

hazard reduction and that it was one big grassland area. I think that is just a furphy, especially in areas such as the Blue Mountains, where we have rich, impenetrable rainforest all over the place.

Mr Browne, you spoke of papier-mâché houses built on ridges and how the size of the block does not allow adequate fire protection. You then placed responsibility on National Parks and other bodies for dealing with this issue. Could I suggest to you that perhaps nothing should be built on that land and that perhaps the residential zoning of that land is inappropriate? I would also ask whether the bushfire officers are involved in the rezoning process, because it appears that, in areas such as this where we have got population issues, inappropriate land is being rezoned as residential and then, as Mr Nott says, people are buying the land in good faith and all of a sudden they are being made aware of the problems with the land. It would seem to me that rural firefighters and bushfire officers should also be involved in the rezoning process.

**Mr Browne**—The problem with the Blue Mountains is that the land was zoned 50 or 100 years ago, and a lot of the subdivisions were not taken up. They just sat in limbo because nobody wanted to live way out in the donga when there was land closer in. When land got scarce on the mountains and prices went up, all of a sudden these previous subdivisions were brought forward again. I was employed by Blue Mountains City Council from 1985 to 1990 as a deputy fire control officer or inspector, as they call them now. The first thing I did was zone the mountains into fire risk areas. I did that using topographical maps and the known data of slope, wind direction, aspect and the whole lot. We came up with low risk land, medium risk land, high risk land and extreme risk land. We then designed a building code to fit those risks, in consultation with the health and building department. We said there would be no building on the extreme risk land. That was put into place and, from that point on, I lived in the Land and Environment Court because that was the avenue of the people who had been paying rates on this land for God knows how long.

Sydney people had bought a block of land and had thought, 'We're going to retire up there.' When they came to build on it, they were stopped. Simply because it was costing council so much, not only to take me to the Land and Environment Court but to take their building inspector, their engineer and all these people down there, we stepped back and said, 'We will put a different code in place that will make people building on that land build a house'—like the previous speaker mentioned—'that has a high degree of fire resistance.' Again, half of these people, when they got the extra \$10,000, \$20,000 or \$30,000 on the cost of their house, went back to the Land and Environment Court again. So you cannot do it unless there is some funding somewhere that says to that person, 'We will buy that block of land from you at current value or at what you paid for it and all the rates you have paid on it in the last 20 years.' That funding is not available, because the Blue Mountains City Council just does not have it.

**Mr McARTHUR**—You are rather critical of the National Parks personnel. Would you be recommending that there be a move back to the ranger type of operation, compared to the current attitude?

**Mr Browne**—That is a hard one to answer.

**Mr McARTHUR**—It is in your submission.

**Mr Browne**—There have been national parks in New South Wales since 1874. The second national park in the world was Royal National Park; the first one was Yellowstone in America. They were always managed by trusts, up to 1967, and those trusts employed not academic people but people with hands-on skills. A ranger in those days did everything. He looked after the park, he looked after the visitors, he looked after the roads, he got a pick and shovel and dug the pit toilets, he did some hazard reduction and he fought fires—he was a hands-on person. When the National Parks and Wildlife Service came into being in 1967, instead of putting in an Australian person as the first director of the service—and they had a beauty in Kosciuszko named Neville Gare—they brought out an American named Sam Weems as director of our national parks for three years.

When they asked America for the loan of a person for three years, the American parks service looked around and said, ‘Who can we most do without?’ and they sent Sam Weems. The first thing that Sam Weems did when he got here was to look around and say, ‘Where are all your graduates?’ There were not any, so he said, ‘You’d better get a few.’ At that time industry was snapping up the good graduates the moment they walked out of university. There was plenty of work, business was booming and so the meagre money that was being paid to graduates by the National Parks and Wildlife Service attracted people with a BA degree or something and the parks got filled up with the wrong people. Time has removed the old hands-on ranger; he has gone, and we have these other people. Time has promoted them to the top jobs. The new graduates coming in are graduates in one of the environmental sciences—and that is good—but the boss is the old BA graduate ranger employed by Sam Weems, and so that is where the problem lies.

**Mr McARTHUR**—Why do you think there is a lack of reduction burning? We have talked a lot about why in fact the authorities, individuals and parks are not executing reduction burns.

**Mr Nott**—It takes too long to get the approvals. What needs to happen—and I will answer the question in a roundabout way—is, as Hugh said, public education. You have to have fuel-reduced zones maybe up to a kilometre or more behind the houses and then you have to have mosaic pattern burning. They will tell you in effect that all of that stuff happens. But it is not happening—Kerry lives up here and he would know that; Kevin and I both know that and Hugh knows that—because you do not see any smoke anywhere up here. It is not happening because it can take years to get these approvals, or they go through part 5 environmental assessments and they just go around and around in an ever-decreasing circle like the dodo bird. What happens then is that the brigades get sick of it and go and find something else to do. That is in effect what has happened. They have lost their oomph. When I was captain of Winmalee brigade, I would have to go to work on a Saturday morning. I would ring up my senior deputy captain and say, ‘This is a good day. We know there is a lot of fuel out at St Columba’s College that is going to menace Sunset Boulevard at Winmalee. We’ve got an approval. Ring them up, get the troops out there and light it up and get rid of it today’—and it would just happen.

In Kevin’s day—and, in part, in my day—they used to go out onto the Black Range and drive along in a truck with a drip torch tied to a shovel and burn off a great tract of land, because the fuel was heavy and it needed to be done. I am not saying that everything was perfect then, either, because some brigades would go out—and for whatever reason the fire always came out of the Fruit Bowl Gully at Faulconbridge or something—and burn it every weekend if they could. It got to the stage that if you let it go like that there would be nothing but rocks left.

What has to happen is that, once a risk is identified, irrespective of who the land manager is—and National Parks are probably the biggest one, but it does not matter; they just happen to be on the receiving end—they should be given a period of time to show cause for why the hazard should not be removed or reduced by whatever means. That might be by trittering or any of the other methods. That time should not be three years while some bloke goes and writes a thesis about why it should or should not be burnt because of some seed bank; it should be 90 days. Then, if a fire gets in there and burns somebody's house down, those who say it does not need to be done should take the responsibility.

If I went down the road here and shot someone on the train, I would take responsibility for doing damage to that person. If you are a land manager and you have been notified of a risk, you should take responsibility. What happens to the RTA if someone rings them up or writes a note to them and says, 'There's a great big crack in the bridge,' and they do not do anything about it and the bridge falls down? What happens? Do they just say: 'Oh, well, bad luck. The insurance companies and the public in general will fund compensation for all these people who got killed or whose houses burnt'? These land managers are not taking responsibility and nobody has enough ticker to make them take responsibility. It is that simple.

**Mr McARTHUR**—Why do you think the National Parks have not put in a submission to this inquiry?

**Mr Nott**—Why hasn't the state government? The Rural Fire Service has not.

**Mr GAVAN O'CONNOR**—Mr Chairman, if that sort of questioning is going to continue, this committee is going to have some real questions. The member knows the reason why that is the case.

**Mr McARTHUR**—These are independent people.

**Mr GAVAN O'CONNOR**—I could very well ask them whether they are aware that the Prime Minister is conducting an inquiry and that the state governments have indicated that they are going to cooperate with the Prime Minister's inquiry and not with Wilson Tuckey's inquiry.

**Mr McARTHUR**—It is quite a legitimate question.

**Mr GAVAN O'CONNOR**—I could ask that question, but I have not up until this point. I have been very patient.

**Mr SCHULTZ**—I know you will continue to be so, Gavan!

**CHAIR**—We have all been very patient and we are over time.

**Mr GAVAN O'CONNOR**—Could I tell you, Chair, that it is a serious issue, because from the point of inception this inquiry has been charged with being a political exercise.

**Ms PANOPOULOS**—That is rubbish.

**Mr GAVAN O'CONNOR**—If committee members are prepared to turn it into one, so be it. What will come out of this—

**CHAIR**—Gavan, hang on. I am the chair of this committee.

**Ms PANOPOULOS**—Gavan, we know you are keen to protect your state Labor mates and we understand why you are saying this.

**CHAIR**—Sophie, please.

**Mr GAVAN O'CONNOR**—We know that you are keen to get into them, and that is the reason for the inquiry.

**CHAIR**—My apologies to Mr Browne and Mr Nott. These are matters that the committee can discuss in private.

**Mr GAVAN O'CONNOR**—We will discuss them in private.

**CHAIR**—I thank you both for your excellent evidence to the committee. We appreciate having had the benefit of your experience over a long time.

Resolved (on motion by **Mr Schultz**):

That this committee authorises publication of the proof transcript of the evidence given before it at public hearing this day.

**Committee adjourned at 11.39 a.m.**