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**HOUSE OF
REPRESENTATIVES**

SELECT COMMITTEE ON THE RECENT AUSTRALIAN
BUSHFIRES

Reference: The recent Australian bushfires

FRIDAY, 22 AUGUST 2003

CANBERRA

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HOUSE OF REPRESENTATIVES
SELECT COMMITTEE ON THE RECENT AUSTRALIAN BUSHFIRES
Friday, 22 August 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 Adams, Mr McArthur, 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.

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Committee met at 8.33 a.m.**ADAMS, Mr Graeme, Head of Product and Underwriting, Insurance Australia Group Ltd****ROONEY, Mr William, Operations Manager, Wollongong and Country West Region Personal Insurance, Assessing and Claims, Insurance Australia Group Ltd**

CHAIR—I declare open this public hearing of the House of Representatives Select Committee on the Recent Australian Bushfires. Today's hearing is the 16th of the inquiry. It brings to an end an extensive round of consultations that has taken the committee to various parts of New South Wales, Victoria, Tasmania and Western Australia in addition to the hearings held previously here in Canberra. In most cases, the committee has concentrated on visiting areas affected by fires to ensure that it develops a good on-the-ground understanding of the issues. The hearings and the inspections that the committee has conducted have been very useful in drawing out the matters raised in the nearly 500 written submissions that we have received. I now call the representatives of the Insurance Australia Group.

I welcome the representatives of the Insurance Australia Group, or IAG. Although the committee does not require you to give evidence under oath, I should advise you that these hearings are formal proceedings of the parliament and consequently they warrant the same respect as proceedings of the House itself. It is customary to remind witnesses that giving false or misleading evidence is a serious matter and may be regarded as a contempt of parliament. We have your submission, which is authorised for publication and therefore automatically forms part of the evidence for the committee. Would you like to make some opening remarks before we move to questions?

Mr Adams—Sure. The Insurance Australia Group, IAG, is Australia's largest general insurer. It insures more cars and homes than any other insurer in Australia and New Zealand. Effectively we have about 30 per cent market share across all of our brands across Australia. In the ACT we have about a 40 to 45 per cent market share. We have about five million customers and about 11,000 employees. The ACT bushfire has been estimated to have cost the general insurance industry about \$345 million. That makes the Canberra bushfire about the seventh largest catastrophe in Australia. Over the last 40 years we have counted about 17 major catastrophes. Within that 17, three were bushfires.

We would submit that the primary facilitator of bushfires to mitigate in an urban area is action to reduce the incidence of the likelihood of ember attack. Principally the ACT bushfires were caused by the drought conditions which preceded the bushfires. Garden areas were very dry and the use of materials around houses in Canberra, such as pine chips, pine logs, timber fencing and timber balustrades, only helped to assist the fire to spread in a very rapid condition. As a major insurance company, we see that more resources should be applied to providing information to the community as to how they can reduce hazards around the house and also how they can work together to prevent the likelihood of fire occurring in the first place. We would be happy to answer any questions.

CHAIR—Thank you for that. I will start. What is your company doing about future policies in fire prone areas? Do you make decisions about premiums based on the location of properties?

Mr Adams—Yes. Our primary concern is to ensure that the community is safe from bushfires. So we are working with a lot of different agencies, such as the Rural Fire Service and the Volunteer Rescue Association. We had the Canberra expo just a few months ago to provide a lot of information to the community generally, not just our insureds, as to what they can do to reduce the likelihood their house might be burnt. In reference to your question, we are in the process of mapping houses throughout Australia to look at the potential of those houses to burn if they are close to bushland, for example. We are looking at accurately identifying the houses that may be likely to be burnt and then targeting information to those houses. We are also looking at how we can better risk rate those houses, as they are obviously more likely be burnt than the normal, garden variety house.

CHAIR—So will your actual premiums vary based on the risks?

Mr Adams—That is correct. As we identify the risk, the premiums will reflect that risk. It is not simply saying, ‘That particular house next to the bush is likely to burn,’ it may well be the house opposite them or one in another street. So we are looking at a whole range of different factors—not just the location but the likelihood of a particular house in a suburb to burn.

CHAIR—What about risk to a house from adjoining properties? If properties are adjoining public land, are you assessing the risk of that public land, that is, the extent to which that public land might be hazard reduced? If it is not, is that going to increase the risk and therefore increase the premium of properties adjoining?

Mr Adams—It is absolutely essential that premiums do reflect the risk. As risks are reduced through the actions of a particular organisation like National Parks and Wildlife—

CHAIR—Or inaction.

Mr Adams—that would be reflected in the premium. So where there is hazard reduction going on, we will reflect that in premiums.

CHAIR—If people happen to be next to areas that are not being, in your view, protected by regular hazard reduction et cetera—and it would be interesting to know how you will assess that—they will be paying a higher insurance premium?

Mr Adams—Yes. To put a bit of context around it: bushfires are a significant problem to insurers but a far greater problem to the community and the people actually living there. Our aim is to ensure there is enough information delivered to the particular householder to ensure they know about the hazards and can take action themselves to reduce the hazards. Overall, bushfires account for a minuscule proportion of premiums. As a rule of thumb, less than one per cent of premiums across Australia would reflect bushfire risks—in fact, there are more claims for kitchen fires than there would be for houses burnt by a bushfire. The overall risk premium across the whole pool of houses is not great. For a house that is located next to natural parkland or bushland, obviously the risk is higher. Even so, it is relatively small over the course of time, so we would not see people living next to bushland paying substantially higher premiums; it would be an incremental lift. Our main aim is to ensure that the community knows about hazard reduction and we work with the community to reduce the hazard.

Mr GAVAN O'CONNOR—I am interested in the public education campaigns that you are involved in, because that seems to be an area that you think needs improving. You have discrete programs and education campaigns for policy holders. Do you have any other involvement in that area that you could explain to the committee?

Mr Adams—We are working very actively with the rural fire services on a program called Firewise, a public campaign to improve the awareness of the need for hazard reduction. We are active sponsors of a volunteer rescue association, we have provided a number of associations with finances and we sponsor the NRMA Careflight helicopter. In the recent fires in Canberra we gave a sum of money to the Salvation Army for immediate works. We also sponsored the Canberra expo. Mr Rooney may want to expand on the Canberra expo.

Mr Rooney—About a month and a half after the fire we found there was a great need in the community for information about what to do next, because a lot of people had never had to rebuild; they had been in their homes for 30 or 40 years and had never faced the prospect of rebuilding—where do they go for help? We came up with the concept of the Help Expo, which was held at the National Convention Centre. We pulled together a lot of the people from the industry that people would have to talk to if they were going to rebuild: architects, builders, legal people—even people from the Australian War Memorial, for instance, to give people assistance on how to recover lost records or tarnished medals or whatever. We took that step to give people information and to give people a bit of assistance and direction not only about rebuilding but to help them get on with their lives, because people just did not know.

Mr ORGAN—When we visited some areas such as Duffy, we heard comments from various people who were insured and who found that they were only going to get 45 per cent or so back, or the insurance companies were being difficult with them—they were basically saying to them, 'Take it or leave it,' and these people were left in very difficult circumstances. On top of that, the state and federal governments were not necessarily putting in money to help them get back to where they were in the past. Do you have any comment on what has actually happened from the Canberra bushfires and how your industry dealt with this disaster and with individual people—for example, people who had insurance but found that it did not cover them?

Mr Rooney—Being the largest insurer in the area, we had quite a vast experience of people in that situation. The actual cases we had of people who were contesting their sum insured following the fire were very minor from our perspective. I am not quite sure of the background in respect of people getting only 45 per cent or 50 per cent. In our case, we have a sum insured that is an agreed value and people know when they buy the policy what they are getting—whether it is \$200,000, \$300,000 or \$400,000. However, in the first two weeks following the fire we did have a lot of people increasing their sum insured amounts.

One of the issues we do notice is that people usually only find out whether or not they have enough insurance cover at the time they come to rebuild. The issue there is based on a lot of work that we have done on building costs in and outside the ACT. I believe a few builders were making opportunity out of the people's disaster, even to the point where in one case in question—and we can produce the documentation on it if required—a person was given a quotation of just on \$500,000 to rebuild a 40-square home when one of the local project builders had an almost identical exhibition home on the road into Canberra for sale for \$295,000. It is a bit of a shame that whether or not people are insured for enough really only comes to light when

they come to rebuild, and at that time they are the subject of market forces or, in some cases, the subject of the individual person's ability to make a profit.

Mr ORGAN—Do you feel that the state and federal governments should have been of more assistance to people in some of those circumstances?

Mr Rooney—We found that a lot of people were getting assistance from various bodies—the Bushfire Recovery Task Force, the government et cetera. It was a small amount of money in respect of a large overall amount. In some cases, I really questioned the money being given to some people, because they had full insurance anyway and I felt it could have been better used for another purpose. What that purpose is I really do not know, but it seemed to me that there could have been a better use for the funds than to give someone, say, \$14,000—based on a rating scale and whether or not they were insured and whether or not they were single, married, pensioned or otherwise—to build a garden, particularly when they were fully insured and well insured.

Mr ORGAN—You made the statement that the premium will reflect the risk. Assessing the risk is obviously going to take a lot of work, a lot of input; it is going to cost the insurance industry a lot of time and effort to go in and assess the risk on individual properties. How will you do that? Obviously, you will have to be working closely with the fire authorities and the state agencies.

Mr Adams—Absolutely correct. In fact, we have a very good relationship with all of the state and federal agencies. What we are doing now is using digital photography. We have an aircraft taking photographs of fire-prone areas, and we are using that to assess the risk on an individual basis. Initially, we were doing it on a suburb-by-suburb basis.

Mr ORGAN—Are you, as an industry, doing this by yourself, or are you doing it in collaboration with all those authorities?

Mr Adams—I am talking on behalf of IAG. IAG is undertaking the digital photography of the areas.

Mr ADAMS—That is good to see, because some of us feel that the insurance industry in Australia in recent years has become lost—not so much in the housing part of the insurance industry but in other parts of the insurance industry—and the insurance industry can do a lot of public good by sharing the burden. But, when it gets to assessing the premiums to meet the actual cost, we get lost. I take your point on the \$500,000 versus the \$295,000. That is an issue that I think the insurance industry and the building industry should be endeavouring to find solutions to. I was interested in the idea of sharing the risk—how you do the risk assessment and then let people reduce the risk if they do certain things. Do you want to share that with us?

Mr Adams—It is very much in the development phase but we are working closely with agencies like the CSIRO to validate and compare various methods of hazard reduction, for example how effective an exterior sprinkler system might be to reduce the risk of fire. I was talking to someone a couple of days ago about the idea of a fire blanket that is catapulted over a house and how effective that might be. Where we see that those sorts of mechanisms do reduce the risk they will be reflected in a reduction of the premium.

Mr ADAMS—I am a bit concerned about the blanket over the top—that would be for people who can afford it. There are those who may not be able to afford this super-duper technology. I am talking about people who might clear around their house. We have had evidence given to this committee from fire services that people who stay with their homes and who have cleared around their homes to remove grass or hazards, those very simple issues, are the things that save houses from being burnt down. I was asking about the role that you could play with the fire services in encouraging people to reduce these risks around their houses.

Mr Adams—That is the beauty of digital photography. We can take digital photographs every year or two and in addition to that, because of the strong relationship that we have with the rural fire services for example, we will be getting feedback as to which areas have been cleared. As soon as we know that they have been cleared and the risk is reduced, that will be reflected in the premiums.

Mr ADAMS—Are you concerned about building codes, how some building codes have changed, how people are building for the outlook and also right in the middle of forested areas and that is increasing the risk to those homes? The fire service gets concerned about that. People have one drive in and there is danger to firefighters and that sort of thing. This committee comes back to building codes, councils and the way that we do things there. What role is your industry going to play in that? Do you have input into anything that will help that?

Mr Adams—Our role is one of encouragement to ensure that building codes are appropriate for the hazard, for example that cul-de-sacs are built so that cars or fire trucks can get up and down and that cul-de-sacs are effectively marked so that we know where the trucks can go in and out. We would certainly encourage town planners and others to ensure that local communities are well planned for bushfire hazard.

Mr ADAMS—‘Encourage’ is not a very strong word.

Mr Adams—As insurers we would certainly like to think that what we insure is safe for our customers and for the community generally.

Mr ADAMS—We are talking about trying to reduce the risk by codes that can assist in bringing down the risk.

Mr Adams—As an example we fund and are very actively involved in a sustainability project within Canberra. There are a number of things that are being considered within the sustainability project. There are ways in which you can reduce the likelihood of fire obviously but also ways to keep people safe in the kitchen and generally around the house. Housing construction materials are going to be very much part of the project. So we are doing something in a very positive way to look at how we can keep a community safe.

Mr ADAMS—There were a lot of people who were not insured and I guess there are a lot of people in Australia who are not insured in terms of house insurance. What is the insurance industry’s view of that and how do we encourage more people to be insured? Don’t they have confidence in the insurance industry?

Mr Adams—I am sure they do have confidence. The issue with house insurance is that they think it is unlikely that the house will ever be burnt to the ground. Some people see home insurance as discretionary and one of the reasons for that is because of the premiums. A substantial proportion of the premiums, in some cases 50 per cent, is tax, so we would certainly be encouraging a reduction in, for example, the fire services levy in New South Wales and Victoria, which would be a substantial reduction in the premium, which would then make insurance more affordable for a greater number of people.

Mr ADAMS—Are you as an industry talking along those lines to different governments?

Mr Adams—Absolutely.

Mr Rooney—On that last point, the work that we have done concerning the bushfires was the cost of insurance and it does get down to a personal choice for people. We calculated that on a pay by the month policy in the Duffy area, say for a \$300,000 sum insured, a person was making a choice between a \$30 premium and a carton of beer a month—that is what it got down to. Sometimes people have to get their own personal priorities in order as to whether they want safety or a carton of beer. You can lead a horse to water but you can't make it drink.

Mr ADAMS—I think that is very true, and the difficulty is that then people will in goodwill put money into rebuilding a person's house but we have not solved the problem of that person actually picking up their own responsibility.

Mr Rooney—I agree.

Mr ADAMS—And I am not talking about somebody who possibly cannot afford the premiums. I think a lot of people could afford it and made the choice not to. It is an issue not only for the industry but for government generally.

Mr Rooney—The other side of that is that the costs of things like the fire services, the levy and the various taxes are only borne by those who do insure.

Mr ADAMS—Good point.

Ms PANOPOULOS—With regard to the insurance of rural properties, what is the proportion of those who have rural properties who would not insure the business part of their properties, as a rough estimate? Say they had a house, fencing sheds, machinery and cattle.

Mr Adams—Off the top of my head, I do not know. I could take that question on notice.

Ms PANOPOULOS—The reason I ask is that a significant hidden cost in the rebuilding of some communities—like mine in north-east Victoria—is the millions of dollars lost in the agricultural industry in fencing, for example, and in a lot of aspects of a farm business that are not insured. I am just interested to know the statistics. People seem to be more inclined to insure their home and not the rural business. Would that be a factor of cost?

Mr Adams—To answer your first question, I am not aware of any statistics that might be available on that, but I could certainly find out and advise the committee. Perhaps my colleagues

at the ICA may be able to answer that question better than I can. In terms of fences, it probably is one of cost. Fences do deteriorate over time. It is very difficult to insure something that depreciates or disintegrates to that degree.

CHAIR—I do not think every state has the fire services levy, but I am not sure. Do you operate in all states?

Mr Adams—We do operate in all states. You are correct; as I understand it, the fire service levy is in New South Wales, Victoria and Tasmania. Other states in the last few years have seen the need to have a more equitable way of funding emergency and fire services, and have levied land rates or council rates so that all parts of the community pay.

CHAIR—It seems sensible to me. What is the cost to the insurance company of administering that fire services levy?

Mr Adams—The cost of administering it is not that great because we add it to premiums. Therefore, the collection is just part of the premium itself. The major impact is really on the customers who pay.

CHAIR—You receive it, but then you have got to pay it—

Mr Adams—We remit it back to them.

CHAIR—You remit it back to the fire services, so there is an administrative aspect there that is probably built into your costs anyway.

Mr Adams—It is built into the cost, yes.

CHAIR—So if it was taken away, it is presumably one less administrative cost to the company in addition to the reduction in the actual levy.

Mr Adams—That is correct.

CHAIR—Talking about different products and people reducing their risks, you mentioned a fire blanket across the house—has your company seen a product called Barricade? It is a gel that can be sprayed across a house to reduce risk. Have you assessed any of those sorts of products?

Mr Adams—Personally, I have not come across that. That does not mean that IAG has not seen it. We do work very closely with the CSIRO. We would normally direct any idea—and lots of people are coming out of the woodwork with ideas—to the CSIRO for testing, so it may well have gone there.

CHAIR—It was just one product that was shown to the committee. Finally, for people taking out insurance, is there a waiting period for a claim with respect to fire—or any other sort of impact?

Mr Adams—In taking out insurance? There is, for new business only. If we know that there is a fire coming up the valley and someone is ringing up for cover, we do put an embargo for fire on that policy.

CHAIR—And there is a time period?

Mr Adams—I think it is 72 hours.

Mr Rooney—It does vary.

Mr Adams—The reason for it is pretty obvious: we do not insure certainties; we ensure against unforeseen circumstances, and that is why we would not take that on as a fire risk.

CHAIR—You said ‘new business’?

Mr Adams—It means if someone is already insured with us and there is a fire we are obviously very happy to help that customer through their issue. We have a 24-hour, seven-days-a-week call centre and we are on to the job as soon as we get the call.

Mr Rooney—I think the answer to your question is that ‘new business’ is people who were not insured with us until the fire was at the back door, but we do vary the cover. If an existing policyholder had moved into a new home that morning and it was on fire we would cover that, but if someone had not been insured and was only insuring now because the house was burning or whatever—that is what we mean by ‘new business’.

CHAIR—It was that time period: if somebody in Duffy had insured on 8 January they would have been okay on 18 January?

Mr Adams—Yes.

CHAIR—So your time period was 72 hours.

Mr ORGAN—It is great to hear that you are doing all this detailed investigation—for example, using digital imagery—and compiling a lot of information about individual risk of individual properties now. You are part of the Insurance Australia Group; there would be proprietary issues here. In regard to public access to all that information, obviously if the Rural Fire Service and government bodies were compiling this information it would be publicly available. Are there proprietary issues which could limit the public availability of some of this important information that you will be compiling over the next decade or whatever?

Also, will there be a problem with councils and the impact of this information? For example, you might assess a whole area—a whole group of houses or something—as having a risk, which hopefully councils would be aware of, and then that could have impacts on property values which real estate agents et cetera would not like to know about. I know in my own area of the Illawarra, where there have been flood assessments made that have involved the councils and insurance groups, there have been a lot of problems in getting that out to the public. All these proprietary issues come up. So do you see it as a problem, both that you have your own proprietary interests in this which therefore might limit how much public information you are

going to release, and also that in dealing with individual properties, real estate agents and councils, they may not necessarily want to know about some of these issues?

Mr Adams—Our primary interest is to make sure that communities are safer. We happen to have a very large stake in most of the communities and therefore indirectly we do get a benefit, but our primary aim is to keep communities safe. We work with councils and we have worked very closely with Wollongong City Council, for example, around the flood issue. In making communities safer we do work very closely with the local bodies. In terms of proprietary interest, our proprietary interest and intellectual property, if you like, is around how we risk-rate. That will remain ours, but everything else is shared with the community.

Mr ORGAN—So you are aware of some of those issues I have raised about the problems if there is an adverse finding that might impact on individual properties? Are you aware of that kind of thing?

Mr Rooney—Wollongong is actually part of my region and we managed both the 1998 and 1999 floods. One of the issues that came out of that was that, as you know, in the Illawarra there is the escarpment or the ocean and not much land in between—and people, for whatever reason, seem to develop anywhere. There are recent developments even in the Dapto area, where the new development is between the Princes Highway and the railway line, both of which are about eight feet above the land, and the land has a creek running through it. I do not know where we fit into that sort of cycle of making sure that that land can or cannot be developed. It is probably a council issue. When we were doing the work with the council down there they were saying, ‘We would love to make the place flood-proof, but we cannot get money from the federal or the state government.’ It is a very big issue. I think the thing is that if all of a sudden someone cannot sell a block of land because it is going to flood every time it rains and put people’s lives at risk, that has to be a good thing, surely—if we are going to save lives and make the place safe.

Mr ORGAN—You are not concerned at all that the knowledge your industry has about fire risk and some of those environmental issues is not getting out there?

Mr Rooney—We believe it is. Following the floods in Wollongong, everyone in the Illawarra area received a brochure on things to look for to make them more aware or to give them a bit of security regarding floods and what to do in floods. That brochure came through the Wollongong Council in the rate mail or whatever.

Mr ORGAN—So you think a similar thing will happen arising out of these fires: there will be more community awareness and your industry will have a role in promoting that awareness.

Mr Rooney—I think the awareness in Canberra, particularly in the Duffy and Chapman area, was already there. A number of people have spoken to us since the fires and said, ‘This is exactly what happened back in 1953.’ In Wollongong, when it flooded in 1998, a lot of people said, ‘This is exactly what happened in 1968 or 1972,’ or whenever. I think the community awareness is there; it is just how that information is used.

Mr Adams—I will just add to that. One thing that we do need is more consistent advice. The historical advice was, ‘If fire is coming down the road, evacuate’, and more recently we are hearing, ‘You’re better off staying in your home and putting out the spot fires.’ Even so, there is

still inconsistency on what people do. Do they evacuate or do they stay in their home? So there is a need, I think, to get clear about the message.

CHAIR—One last question. Would IAG refuse insurance for somebody if it felt the risk to their particular property was too high?

Mr Adams—If you are talking about bushfires there, it is highly unlikely. We would certainly be working with the customer to explain to them how they can reduce the risk. We would more than likely reflect it in the premium and the excess. If you take into account the millions of homes around Australia, very few houses end up being burnt. So we would rather take that on, but work with a customer to reduce the likelihood of a bushfire.

CHAIR—Thank you very much for your information this morning and your submission as well. We appreciate it.

[9.08 a.m.]

HANSELL, Mr Allan John, Manager for NSW and the ACT, Insurance Council of Australia

MASON, Mr Alan John, Executive Director, Insurance Council of Australia

CHAIR—Welcome. I will not reread the formal bit about evidence as you were here to hear that at the introduction. The committee has a submission from you, which has been authorised for publication. Would you like to make some opening remarks before we have questions? In making your opening remarks—I am sure the committee understands but just in case they do not—can you explain the role of the Insurance Council as opposed to insurance companies as such.

Mr Mason—Thank you, Chair and members of the committee, for inviting us here today. I will certainly speak briefly to our submission. The Insurance Council of Australia itself is a trade association. It represents licensed insurers in Australia. Our members account for just over 90 per cent of all insurance business transacted in Australia. When it comes to disasters, its role is largely a coordinating role through the Insurance Disaster Response Organisation, which I might expand on a little bit if it is helpful.

As an industry association, we have been dealing, as I think we might have indicated in our submission, with a series of natural disasters in Australia going back to 1967; so we have had 30 plus years experience in what happens in these events. There were five topics that our submission covered: the role of the Insurance Disaster Response Organisation and how we think governments could best avail themselves of that expertise and support them going forward; how the industry in general responded to the bushfires here in Canberra; the role of the fire services, both the professionals and the volunteers, in mitigating risk; the impact of insurance taxes; and the phenomenon of noninsurance or underinsurance, which committee members raised with the previous witnesses.

The IDRO is the main organisation that the industry has established to liaise with government, the media, the community, insurance companies and other organisations when there is a disaster. It is a partnership; the organisation comprises brokers, loss adjusters and, importantly, the insurance industries complaints body—Insurance Enquires and Complaints Ltd. What it tries to do is to provide a framework for streamlined management of a disaster when it happens. It does not actually handle the claims; that is the role of the individual insurance companies, which have their own disaster management plans. But what the IDRO does is coordinate with all the government agencies, relief agencies, fire brigades and everybody else the response to all the issues that come up. We have found over the years that by far the best managed disasters have been those where there has been a whole of government approach to managing the issue immediately after the event.

The industry's view is that the ACT government did indeed handle the coordination of the response to the disaster very well. Some governments have got predetermined disaster response mechanisms like this in place, and our submission says that we advocate that all governments—

Commonwealth, states and territories—should have a standing arrangement to deal with disasters, as more of them will inevitably happen; we just do not know where and when, but they come with increasing frequency.

I was actually here on the Monday of the fires, and my colleagues from the IDRO followed me down on the Tuesday. In those first few days we met with the emergency services, ACT Urban Services, Canberra Connect, the Real Estate Institute of Australia, the Property Council of Australia, the architects, the National Capital Authority, the Chief Minister's office and the Attorney-General's office of the ACT government, our minister here in the federal government, the shadow minister and local members. So we immediately got involved with the ACT community and the recovery subcommittee to provide all the linkages to the insurers, to the loss adjusters and to people who were handling the problems in the field. I think that significantly contributed to how well the disaster was managed, which in our view was well managed.

I will just add to a point made by Mr Adams from IAG that, whilst bushfires certainly get the public's attention, a number of people lose their houses every year in fires around Australia in normal events. There are thousands of homes that catch fire every year that have nothing to do with natural disasters. That leads me to one of the major points in our submission concerning tax approaches to insurance, incentives to buy insurance, community information and the level of underinsurance and noninsurance. When a disaster happens there is a community focus, and people suddenly realise the merit of having insurance or not insurance. But if an individual person in a suburb or rural town loses their house from a kitchen fire and they are not insured, there are no relief organisations, there are no government relief payments, there are no responses to that.

It is our view in our submission that one of the major causes of the lack of take-up of insurance in Australia is the level of taxation applied to insurance processes. Consumers, in our submission, pay enormously wide-ranging rates of tax on their insurance product. The fire brigade levy in particular is in our view quite inequitable. We are funding a fire service which, around Australia, provides over a billion dollars worth of risk prevention, mitigation and other resources to the whole community, but in New South Wales, Victoria and Tasmania it is largely only people who buy insurance who actually pay for that service, which is there for the benefit of the entire community. The inequity of that drives costs. Ms Panopoulos mentioned rural Victoria. I think the farming community businesses in rural Victoria are paying something in the order of 77c in the dollar—

Ms PANOPOULOS—Seventy-eight cents.

Mr Mason—Sorry, correct me. But that level of tax on top of their insurance premium has to be regarded as penal and a disincentive to people to insure. We believe that it is essential that the tax is based more equitably and reduces the cost of insurance to encourage more people to insure. We are very disappointed in the Victorian government review that has just been conducted where we had strong expectations that the Victorian government would look for a replacement system—as Queensland, Western Australia, South Australia and the ACT have done in recent years—but they have declined to make any changes. New South Wales, I have to say, with some positive features, is just embarking on a major review and hopefully we will get something out of that. But we have the fire brigade levy, GST on the fire brigade levy, stamp

duty on the GST and on the fire brigade levy—we have tax cascading on the insurance process, which the customers will pay for.

This leads us to the last point, which I know the committee was interested in earlier. The experience in Canberra was that the level of adequacy of insurance generally—and averages always disguise a lot of sins, but we found that the cost of replacement of contents typically was underinsured to the order of about 30 per cent and buildings to the order of 40 per cent. There are a lot of reasons for that; affordability is certainly one. Notwithstanding the huge effort that individual companies make in trying to give people guidance on how to arrive at their values and sums insured, people typically underestimate the costs. They forget that if you have a fire your policy has to pay for the alternative accommodation, the debris removal, all the things that you have added on to your house since you first bought the insurance and—one of the features which unfortunately happens in disasters—that if you have a disaster you have a supply and demand situation. If you have one fire in one house you have access to a normal competitive market for repairs, building trades and everything else. When you have hundreds of homes affected, as was the case here, there is a shortage of supply, of trades and of everything, and the cost dynamics change, unfortunately. I think I have probably said enough. There is a bit more in our submission, but perhaps I can leave it there.

CHAIR—Thank you for that. In the *Sunday Age* of 26 January there was a report that said:

One of Australia's biggest insurers ... is refusing to offer new insurance policies to people living in bushfire-threatened parts of Victoria and the ACT until conditions improve.

And another one has 'suspended taking insurance applications from the ACT, although not from customers in the rest of the country.' Can you tell us what the attitude is to this issue from the various members of your council?

Mr Mason—Yes. Generally speaking, every individual company forms its own view at a particular point in time, so you tend to get individual company decisions—which that one in Victoria may well be—which might not be reflective of what the rest of the companies are doing. In terms of immediate response when there is actually a disaster occurring, insurance companies generally will take the view that insurance is a pooling system, so all the people who insure put their money in a pool which is then available to pay those people who are unfortunate enough to have a loss in the event that it happens. If people only ever buy insurance when they are about to have a claim, the system would fall down. That is why, if there is a fire coming down your street, insurance companies are obviously not going to insure houses as they are about to catch fire, and that is probably the response that is most concerning in that article.

CHAIR—I think this article is saying that the insurance companies are concerned about high risk areas, not necessarily the fire coming down the street and you are not going to insure there, but areas that—

Mr Mason—Generally—

CHAIR—might be seen as high risk.

Mr Mason—Perhaps I can answer that in a broader sense. Companies do typically decide what they are going to insure and what prices and conditions they will impose based on their risk assessments. In the household insurance area, it is driven by exposure to burglary, which is probably the biggest factor that determines pricing and risk assessment. Exposure to weather related disasters is another, and bushfire would probably be, in the overall scheme of things, low on the list of things that cause losses. That is largely because of the impact of building standards, fire brigades and government regulations. A massive amount of effort goes into the community in reducing fire risk, and I think that is reflected in the fact that fire is not the predominant cost in household insurance premiums.

CHAIR—Do you agree with the evidence that IAG gave that they are assessing properties that adjoin public lands that are not being hazard reduced as a global scheme and therefore that could impact on the actual premium?

Mr Mason—I am aware that they are doing it; I am not aware that anyone else is doing it—at the moment certainly.

CHAIR—I would like to clarify insurance premiums and the taxes—and I know it might be different in each state. Take a state with a bushfire levy: you have a premium and you will have a fee often for the broker, which GST is applicable to. GST is not applicable to the actual insurance premium: is that correct?

Mr Mason—Not entirely, no.

CHAIR—Maybe you can just step us through at which point each of the things is applied.

Mr Mason—Putting brokers aside for one second—and I will deal with them separately—there is a table in the submission in appendix B and I will explain how it works. If you take the hypothetical premium of \$100, which would include, for the purposes of this example, any commissions and other costs of the insurer, the premium that goes to the insurer is \$100. This is in metropolitan Victoria. They then pay a fire brigade levy of \$13 on the \$100—this is for household insurance. That gives you a subtotal of \$113, the premium and the fire brigade levy. GST is then applicable to the total \$113, so there is \$11.30 of GST, and then state stamp duty of 10 per cent is applied to that total, giving you another \$12.43. So at the end of that example your \$100 has become \$136.73.

CHAIR—So the stamp duty—

Mr Mason—The fire brigade levy—

CHAIR—Goes on top first.

Mr Mason—Yes. Then GST on both the premium and the fire brigade levy, and then stamp duty on the premium, the fire brigade levy and the GST. So that is how it works.

CHAIR—And that is the same in New South Wales?

Mr Mason—That is the same in New South Wales and Tasmania.

CHAIR—Does ACT have a fire brigade levy?

Mr Mason—ACT had a levy and removed it. My understanding is that it funds the fire brigades out of consolidated revenue. So it provides a service to the whole community that is met out of central funds.

Mr GAVAN O'CONNOR—On this issue of taxation—obviously this is a dorothy dixer—you firmly believe the cascading tax structure is operating as a disincentive to some people to insure. Are there other factors that are more pronounced than that? What do you think it is that prompts households in fire prone urban areas not to insure? The previous witness said it is basically a carton of beer a month or, in the case of some people, a bottle of chardonnay—a good bottle.

Ms PANOPOULOS—I am sure all the chardonnay drinkers in Australia would be well insured.

Mr Mason—We have got a track record over many years of underinsurance during disasters. We have done a lot of research in the last few years of underinsurance and noninsurance and we could send the committee the report that we did last year, if you would like to receive that?

CHAIR—Yes.

Mr Mason—We think the key driver is an economic decision. The level of underinsurance or noninsurance is higher in the lower socioeconomic groups and it is certainly highest in people who are in rented accommodation.

Mr Hansell—And for older persons.

Mr Mason—We would say cost is certainly the first driver.

Mr SCHULTZ—Budget derivative insurance?

Mr Mason—Yes. Also, there are a whole lot of community attitudes. There are people who think it is never going to happen to them—there is a fair amount of that thinking. There are the long-running problems associated with rental properties and security arrangements with landlords, in which insurers require certain security arrangements and locks and things. There is at times a mismatch between landlords' obligations and insurance requirements that we are perennially trying to work through. But it is mainly awareness after cost—awareness of what is likely to happen and, indeed, just a budget factor. Many people think that insurance is out of their reach in terms of affordability—they just do not know.

Mr ADAMS—Many people lost a lot of confidence in the insurance industry after the HIH debacle and thought there were a lot of bad practices—premiums being set without risk assessment and a whole range of issues. They thought that the insurance industry lost its way—or a part of it did—and we lost the whole principle of what insurance was about. Do you think that is reflected in some people saying that they did not have confidence or faith in the insurance industry in Australia?

Mr Mason—All the research and information that we have had since would suggest that the level of confidence of people—particularly in consumer products, in household and motor insurance—is, if anything, better than it was before. I think that is largely because of the way the governments, HIH claim support and Alliance—who took over most of the domestic business from HIH—responded. The downturn has been largely driven by the problems around public liability. I know that this committee is not looking at public liability—

Mr ADAMS—We have all dealt with it, though, Mr Mason.

Mr Mason—but that was certainly where there has been a loss of confidence. The problems have been in the small business sector and in community groups. The mums and dads consumer products, household and motor insurance, have not suffered any massive disruptions. There have been very modest changes in pricing in those areas across the board. It has been stable and the research we have says that that has not been a factor in underinsurance or noninsurance.

Mr GAVAN O'CONNOR—What strategies does your industry employ to get that level of underinsurance or no insurance up in particular areas that you assess as being fire prone?

Mr Mason—From the Insurance Council of Australia point of view, individual companies have got lots of individual on-the-ground projects and initiatives going on. From our point of view, there is community education. I will ask my colleague to add to this. We are also approaching it from an economic point of view, and we made a submission to the last federal budget. Allan, would you like to touch on that?

Mr Hansell—I will go back a step. Certainly there are public education type activities, but not particularly in bushfire prone areas. Because of the fact that we are an industry association we do go out of our way to make contact with other industry associations, such as COSBOA, the small business advocates, and Australian Business Ltd. We have also had contact with the Australian Consumers Association—we are talking to them about the whole underinsurance issue and the fire levy issue in particular. We also plan to have some discussions with various pensioner organisations. That is, from a macro level, how we are trying to get the message filtered down through those organisations.

In an effort to encourage government to look more favourably at the taxation issue, we recently developed a proposal suggesting that government should have an inquiry into the tax deductibility of household insurance. Certainly it is evident to us that you can get your private health rebate for medical type purposes. There seems to be an inconsistency in that, on one hand, government can give rebates to assist people in protecting their health but, on the other hand, for the major asset that people in the community might own—that is, their house—they have the cost of insuring it, and on top of that comes the taxation. There are no real government incentives for people to insure; in fact, it is quite the opposite. That is certainly one issue that we think would help encourage people to not underinsure or not insure.

Mr ADAMS—There are no capital gains on the house, though.

Mr Hansell—True.

Ms PANOPOULOS—With regard to the estimation of the actual loss to the community resulting from the recent bushfires—that is one of our terms of reference—in your submission, on page 2, in the second last paragraph, it says:

There were some 60 household, 143 farm and 5 commercial claims for an overall estimate of \$12 million in NE Victoria alone.

Obviously that is an estimate only on claims made.

Mr Mason—Yes.

Ms PANOPOULOS—Do you have any modelling to assist us to get a better estimate of the loss, including properties that were not insured so claims were not made?

Mr Mason—No, we do not have any direct modelling. In disasters the costs to government assets, infrastructure, uninsured losses and the flow-on economic effects is work that we think would be useful to be conducted, but we have not—

Ms PANOPOULOS—We have some information on flow-on effects to local economies but, in terms of the actual loss to capital in the area, you do not have any of that?

Mr Mason—We do not really. Unfortunately it is information we do not have because, as people do not make claims, we do not know how many are out there.

Ms PANOPOULOS—I appreciate that. I thought that maybe with projections to your members, in terms of where they could get potential business, you might have some modelling figures.

Mr Mason—If we can find some information we will. The only one I do know is that here in Canberra—because there was a finite number of houses that were affected and everybody knew where they all were, because the fire brigade and everyone else counted them—there were only 10, I think, that were not insured at all. Still, for those people it was a total disaster.

Ms PANOPOULOS—My concern is that the actual loss to rural communities is underestimated because I suspect that a significant proportion of farm business assets are not insured.

Mr Mason—I suspect you are right, yes.

Ms PANOPOULOS—I am wondering if you could help us with some ideas of how to—

Mr Mason—We can make some inquiries of the major rural insurers, but I do not know if they have any information.

Ms PANOPOULOS—I will give you an example: that \$12 million would not include one of the farms from Omeo, where their fencing alone was going to cost \$1.2 million.

Mr Hansell—I would be happy to approach the New South Wales or Victorian farmers' associations on those two issues. They have been working very closely with the Insurance Council on the whole fire service levy reform issue and they may well be able to provide some guidance in that area.

Ms PANOPOULOS—That would be appreciated, Mr Hansell.

Mr SCHULTZ—Reverting to the sheet that you gave us titled 'Impact of government taxes on home insurance premiums', I refer to New South Wales. People who are insuring their house and contents are paying three levels of taxes: the fire levy, the GST and the stamp duty—on the \$100 example that you show there. But they are also getting hit again, aren't they, because there is also a fire levy at the local government level?

Mr Hansell—That is correct.

Mr SCHULTZ—And that fire levy, I understand, is 17 per cent?

Mr Hansell—It varies between metropolitan and rural fire services.

Mr SCHULTZ—I am talking about rural.

Mr Hansell—For rural it is about, I think—

Mr Mason—Thirteen per cent of the budget of the fire brigades is met by local government.

Mr Hansell—Yes, there are two figures. It is about 13 or 14 per cent, I think.

Mr SCHULTZ—Yes, they pay a levy to the Rural Fire Service. As an example, if I was living in Young I would be paying as a ratepayer; my council would be paying a levy to the Rural Fire Service. So they are actually getting hit again.

Mr Mason—Yes.

Mr SCHULTZ—Why don't we publicise that?

Mr Hansell—In recent times, just leading up to the New South Wales government's review, we have formed an alliance with the local government sector and a variety of other groups, including NSW Farmers Association, Australian Business Ltd, the State Chamber of Commerce, the Housing Industry Association, the retail industry association and a whole host of other industry type organisations. The purpose of this alliance was to lobby the government, both to get a review into the fire service levy issue and also, hopefully at the end of that review process, to get a replacement model. We are glad that local government has come on board; we can certainly appreciate that in times of rate-pegging and the like, the fire service levy impost on them can have quite a significant impact on their funding of local projects. We are very grateful too that, as part of any alternative system that we might put up, local government has suggested that they may well be interested in taking on the role of the collection agency for any new fire service levy that might be applied across the whole community.

Mr SCHULTZ—Can I just go back to that. So, when local government pays a fire levy—and I am talking of New South Wales—does it pay it both to the insurance company and to the Rural Fire Service?

Mr Hansell—Yes.

Mr SCHULTZ—It does?

Mr Hansell—If they insure their assets with an Australian insurer they will pay it on their premium, as per these examples, in addition to paying a levy directly to the government.

Mr SCHULTZ—So—correct me if I am wrong—in effect they are not just paying three taxes on their insurance; they are paying five. Through their role as ratepayers in local government they are paying an additional two taxes: one to the insurance companies and one to the state. Is that correct? Local government money is ratepayers' money. That is how they operate.

Mr Hansell—Yes.

Mr SCHULTZ—If local government has to pay a fire levy to the Rural Fire Service and to the insurance companies, or whatever group is insuring them, that comes out of the pockets of the people insuring their homes as ratepayers in their shire.

Mr Hansell—That is correct.

Mr SCHULTZ—It is separate from and in addition to those compulsory taxes that they pay when they insure their house and contents.

Mr Hansell—Yes. Certainly one of the issues that we have been raising with governments is the fact that the fire service levy, whether it is applied to insurance premiums or to local government, is not a transparent tax.

Mr SCHULTZ—I hate to labour the point, but how much do they pay to the Rural Fire Service? What is the percentage? How much do they pay to the insurance company or group? What is the percentage?

Mr Mason—We can come back and give you that.

Mr SCHULTZ—Give me an approximate figure.

Mr Mason—I think they pay about 12.5 per cent of the total cost of the fire brigade budget—about 13 per cent.

Mr SCHULTZ—That is to the Rural Fire Service?

Mr Mason—Yes. It goes onto the rates. It is the same with the metropolitan fire service for local government.

Mr SCHULTZ—I am not interested in the metropolitan fire service; I am interested in my rural ratepayers.

Mr Mason—To the extent that they buy insurance for the local council's assets they will pay these taxes in our example to their insurer. A lot of local government is insured through Statewide Mutual so I am not totally familiar with their insurance arrangements.

Mr SCHULTZ—Can you get that information for me? That is very important. We have a misleading figure here—it is not intentional; I know that. This is a public document and the figure says that they are the only taxes that people are paying on their insurance, when they are not; they are in fact paying more than that. Quite frankly, I am amazed that there is no public education to tell people exactly what they are paying. I can then see the argument that is coming out about a tax deductibility situation for people. I make those comments for what they are worth. There should be a public disclosure of what people are paying in insurance. It is no wonder that there is a disincentive for people to insure when they are getting ripped off in anything and everything that happens in their community and outside their community. And that is no reflection on the insurance company; it is a reflection on governments and the hidden taxes that are there because of the impositions they are placing on those ratepayers.

I have one more question. For ratepayers in shires there is a set of rates for urban based ratepayers and a set of rates for rural based ratepayers. Is any consideration being given at a government or insurance level in your discussions about a differential rate for people living in rural and regional Australia? I ask that because they do not have the services that their urban counterparts have and therefore because of their geographic location they are penalised.

Mr Hansell—That is certainly the case. We have recently engaged some modelling experts to model, if you like, possible alternative systems to the current fire service levy model. Basically, the purpose of that modelling exercise is to assist government in working out who the so-called winners and losers would be from any type of reform process. Things that can be factored into that type of modelling exercise include an examination of, for instance, basing your new fire service levy on the unimproved capital value of your land. In other states they have looked at issues such as service delivery. Basically, if you live X kilometres away from a fire station you pay less than if you are living right next to it. The modelling exercise also looks at caps and minimum payments. I would expect that if the government did accept a reformed fire levy system there would be protections in there for people living in rural areas.

Mr ADAMS—You might have talked about Tasmania earlier. I think I pay my levy on my local council rates. I do not know whether it is on my insurance bill—I do not think it is, actually.

Mr Mason—It is, but it is at a much lower level than it is in New South Wales or Victoria.

CHAIR—It is not shown in this column. Tasmania is showing zero for a bushfire levy. Western Australia is shown as having one but it is noted that it is being phased out.

Mr Mason—Tasmania is not on residential; it is only on commercial insurances.

Mr SCHULTZ—If Tasmania has it right, well done.

Mr ADAMS—And we are not going to let them put it on the phone bills, either.

Mr SCHULTZ—You have phones down there now?

Mr ADAMS—We have phones now; we have done away with the semaphores. I want to ask the insurance industry about rating—and you just mentioned modelling, Mr Hansell. I know there is a rating system which you have for regions and suburbs, or different towns, on which you finally make your risk assessments. I am interested in how this is done and the processes. I am coming from the belief that people can reduce their own risks and that they should have opportunities to do so. If community groups want to help people reduce risks, maybe that is something that the community can get involved in. But, unless we know that, unless the insurance industry actually tells us as a community, how do we know what the risks are that the insurance industry uses to set the premiums?

Mr Mason—In the household insurance sector, which is probably the one of most interest at the moment, the key risk reduction measures that most insurers use relate to burglary risk, which is the biggest cost of claims. You will find that many companies offer discounts to people who have alarms or security devices. In my own case, I have a \$300 excess or deductible on my policy, and that reduces my premium quite significantly because it cuts out all the small claims.

Mr ADAMS—We have some problems in suburbs which seem to be prone to crime, and the suburbs next to them have higher premiums. I have been through that experience too.

Mr Mason—I know that crime has been a particular problem in Tasmania.

Mr ADAMS—In some areas, yes.

Mr Mason—That is probably the most noticeable factor that drives different companies' views of different suburbs and premium rates.

Mr ADAMS—My colleagues were with me in Tasmania, and the suburbs around the suburb we were talking about—where there is a lot of arson, which causes a lot of problems for the fire service—are where the premiums for burglary have increased the house insurance. If we could solve some of the problems, we would be solving them for fire, burglary, whatever. I am interested in how you set the risk, and you have not got to that yet.

Mr Mason—Unfortunately, that is the province of individual companies; it is not something that as a trade association we get involved in at all, otherwise we would have visits from the ACCC. It is an area in which we do not do any collective or collaborative work.

Mr ADAMS—What about the modelling? I know it is set on fire risks et cetera—that certain standards are set by the insurance industry. How does it use those risks? That must be a pretty generalised process that must be known.

Mr Mason—The best thing I can do is to take your question on notice and ask a couple of the companies to individually respond to you and tell you how they do it. Then you will have a factual answer rather than a hypothetical one from me, if that is acceptable.

Mr ADAMS—Okay. That will do.

Mr ORGAN—Does your body have any research or does it have a view on the responsibility issue? We have heard from some people who have been claimants, and they have said that it is the fault of National Parks or the local council for not back-burning and all that. You are probably aware of the debate that is going on about who has responsibility and whether there should be some legal redress. Has your council looked into this at all? Does it have a view on it? Has it carried out any legal research with regard to that?

Mr Hansell—Whilst it obviously concerns us, it is not an issue that is part of our core operations, so it is something we have not followed up.

Mr Mason—We obviously have lots of briefings from the Rural Fire Service and metropolitan fire brigades. They advise us on their view of hazards but we have not done any work that could help.

Mr ORGAN—It is not an area that you think the Insurance Council will have to deal with; it will be private individuals who will be taking that route?

Mr Mason—That is right. A couple of years ago we provided funding to the Western Australian fire brigade—I cannot think of the name of the project—to do detailed scientific research on the behaviour of wildfires in forests. Over the years we have provided assistance for that sort of research, but not in terms of trying to attribute accountability.

CHAIR—I have a last couple of questions. The insurance industry collects fire levies in a number of states. Do you think that there should be an obligation, then, on those fire services to show up when fires occur? Do you think that is the perception of people? They are paying a fire levy, so it is not too unreal for them to expect—

Mr Hansell—You are talking about the reason the system developed the way it has. Back in the Great Fire of London days, insurance companies ran their own fire brigades. You would get a fire mark that you would pin to the front of your house. If your house caught fire and the wrong fire brigade turned up then they would let it burn.

Mr ORGAN—We have come a long way, haven't we?

Mr Hansell—In terms of our payments to government, at the end of the day governments have to run their own fire services. We do not enjoy being tax collectors but, because of the law, we do it—we comply with it.

Mr Mason—I think you were touching on the equity problem. Those who do not contribute anything still have this expectation that the service will be provided if something goes wrong. That is at the heart of why we think the thing needs reform. I do not want to put words into the mouth of the fire services but I think it is probably not a great way for them to be funding their future needs and developments—because the more this tax effect builds up on insurance, the more people avoid the insurance system and the more the rate of tax goes up. It will become a self-fulfilling prophecy in the end. It obviously limits the capacity of the fire brigades to develop and fund their services.

CHAIR—I would like to ask you a question on a totally separate topic: insurance values. When you insure some things you often cannot insure them for a particular value. The best you can do is insure for replacement value.

Mr Mason—Yes.

CHAIR—When you insure a house you can only insure it for a value, and the replacement value is not connected at all. Given the difficulty that has clearly come out in the ACT bushfires, where people seem to have been insured for about \$1,000 a metre but it is costing them between \$1,200 and \$2,000 in replacement, should we be relooking at insurance?

Mr Mason—I think the short answer is that the building insurance policy does cover rebuilding costs. That is the basis on which the policy is structured. The problem is that so many people buy insurance based on either what their mortgage is or what they think the market value of the property is. Sometimes the rebuilding costs can be way in excess of the market value; at other times the costs are less.

CHAIR—But you cannot insure on the basis of what the rebuilding cost might be.

Mr Mason—That is the number that you should insure for.

Mr ADAMS—How do you know that? How do I know what my house is going to cost to rebuild?

Mr Mason—Insurance companies provide guides, the Institute of Valuers provides guides and the building industry itself provides guides. Essentially, for building a brick veneer house the guide in that area is that it costs so many thousands of dollars a square. You then add to that—

Mr ADAMS—This is a consumer product. I get a new premium slip every year that says, ‘With inflation or indexation, the premium has gone up \$20 or \$30.’ I accept that and pay the extra, but that is my connection with my insurance company; if they are going to tell me other stuff then they should be telling me. I think this is what we are saying.

Mr Mason—There is plenty of material around, but with indexation, if you have got your original starting figure right then indexation should at least keep your value in line with inflation.

Mr ADAMS—What we are saying—and what I think Gary meant—is we do not think the insurance industry is saying to people, ‘This might be what your rebuilding cost is going to be and it may be you should be insuring at this figure.’

Mr Mason—Almost every company has got guides on how you assess your sum insured and how you construct—

Mr ADAMS—I have never seen one, and I have lived a long time.

Mr Mason—They are certainly available. The Insurance Council has them available as well; they are on our web site.

CHAIR—But you do not sell insurance.

Mr Mason—We are just trying to provide some help.

CHAIR—I understand those things can be available; it is more the principle. When you insure a car, you do not effectively have an actual value—it is ultimately the replacement value. You might insure a car and if you keep it 10 years it is not worth what it was when you bought it.

Mr Mason—Your car is an asset that reduces in value all the time whereas your house is doing the opposite in terms of replacement cost.

CHAIR—It is a very difficult area but it something that clearly needs to be constantly considered, and probably education is still going to be the main issue.

Mr SCHULTZ—I have just a final question to which you may or may not know the answer. When the GST was introduced, it went on to the home insurance premiums. Was that an additional tax or was there a tax removed by the states to compensate for that?

Mr Mason—There was no explicit tax that was applied to insurance that was removed when the GST came in.

Mr SCHULTZ—Thank you. So it is an additional tax on top of what people were paying before.

Mr Mason—State stamp duty on insurance remained.

CHAIR—Thank you very much for your evidence today and for your submission.

Proceedings suspended from 9.58 a.m. to 10.19 a.m.

CHENEY, Mr Phil, Fire Research Scientist, Bushfire Behaviour and Management, Division of Forestry and Forest Products, Commonwealth Scientific and Industrial Research Organisation

ELLIS, Dr Peter Francis Monckton, Fire Research Scientist, Bushfire Behaviour and Management, Division of Forestry and Forest Products, Commonwealth Scientific and Industrial Research Organisation

LEONARD, Mr Justin, Project Leader, Bushfire Research, Manufacturing and Infrastructure Technology, Commonwealth Scientific and Industrial Research Organisation

MORTON, Dr Stephen Ross, Executive Chair, Division of Environment and Natural Resources, Commonwealth Scientific and Industrial Research Organisation

VERCOE, Mr Timothy Kent, Centre Director, Asset Protection, Commonwealth Scientific and Industrial Research Organisation, Forestry and Forest Products, and CSIRO Bushfire Coordinator

CHAIR—Welcome. Although the committee does not require you to give evidence under oath, I should advise that these hearings are formal proceedings of the parliament and consequently warrant the same respect as proceedings of 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 various submissions and correspondence, which have all been authorised for publication. We did have Mr Vercoe here for a hearing during July. We thought that after completing our hearings in various parts of the country it would be worth having you back in this morning just to allow the committee an opportunity to go back over a number of things and clear up in our minds a number of issues as well that have been raised at the various hearings we have held. Is there anything that you would like to say in your opening remarks?

Mr Vercoe—There are a couple of things. There are a couple of questions that the committee asked me to report back on previously. I have not done that in writing at the moment but I will just make a comment now. One of those was on the fire intensity of the recent fires and whether we could apply that to a graph that was in the submission. We will be able to do that by the first week in September. We are going through a number of things with the ACT inquiries and that will come out as a result of that, and we will put those points on the map for you then.

The other question was about staffing levels in the CSIRO and whether they had changed in response to fire activity. That is a difficult one because there is a whole range of scientific endeavours which can be applied to bushfire at any particular time. In expertise levels, no, they have not changed. In actual application to fire activities, there has been an increase during the inquiry process and there will be an increase due to the CRC when that comes into play in the next month or so.

I would also say that we noticed in some of the other responses and submissions that people had raised greenhouse as an issue. From our atmospheric research division I will just read the following comment on that. It says:

CSIRO believes that fire risk in January 2003 was extremely high due to a combination of natural climate variability and the enhanced greenhouse effect. The extremely high temperatures associated with the 2002-2003 drought have been shown by Collins et al (2000) and Nicholls (2003) to be part of an underlying warming trend since at least 1950 which is partly greenhouse-induced. According to CSIRO's (2001) climate change projections for Australia and a recent paper by Whetton and Suppiah (2003, attached), such heatwaves and droughts are likely to occur with greater frequency and severity in future. Various studies of the impact of greenhouse warming on fire risk have been undertaken in Australia over the past 15 years. All point to increased fire risk in future, but the magnitude of change depends on the climate scenario used. Cary (2002) assessed the potential impact of future greenhouse warming on fire risk in the ACT using the CSIRO DARLAM climate model (which simulated a tendency for wetter summers in future, in contrast to most other models which indicate drier summers in southern Australia). The results of this study are probably conservative but should be considered in the context of managing future fire risk, i.e. by the year 2070 the ACT study concluded:

- 5-20% increase in the annual accumulated Forest Fire Danger Index
- 12-70% decrease in years between fires at same location
- 7-25% increase in fire-line intensity.

I will just add that.

CHAIR—Does anybody else want to make some initial comments?

Mr Cheney—In looking at these scenarios, one should recognise that right across Australia we cover a huge range of fire climates. A change of warming, cooling, extra rainfall or drought probably will reflect in one place a climate that already exists in another place, which is being dealt with by the fire agencies in those areas.

Ms PANOPOULOS—Mr Vercoe, in relation to those comments on greenhouse warming, has the CSIRO conducted studies over time to measure temperature?

Mr Vercoe—I would have to say yes. I cannot give you specifics but most definitely there are a series of studies over time which look at a range of different factors.

Ms PANOPOULOS—Are those studies based on the measurement of temperature in certain locations?

Mr Vercoe—I will take that on notice and get back to you.

Ms PANOPOULOS—Please, because where those temperatures are taken can be very critical in the measurement of variation in temperatures.

Mr Vercoe—I understand.

Ms PANOPOULOS—I am not a scientist myself, but I know that much.

Mr Vercoe—The projections are based on models and the models are based on a combination of satellite and spot locations, but I will find out for you.

Ms PANOPOULOS—The models and obviously the time over which they are taken are two critical factors. In the submission, I believe in the executive summary, there is a statement:

Grazing by livestock, either present ... or absent ... made little difference to the fire spread or intensity through alpine ... regions.

Has the CSIRO mapped areas where there has been significant grazing?

Dr Morton—We might have to take that one on notice too.

Ms PANOPOULOS—The reason I ask, Dr Morton, is that there are decreasing areas of grazing and decreasing windows of opportunity for that to occur. I am interested in whether that statement was based on an overall impression or whether there are actually any studies upon which that statement relies. When we went to Western Australia, we were shown some trends in the movement of fire that was altered due to fuel reduction burning. That was one aspect, but in other areas we had anecdotal evidence of the direction of fire changing or stopping due to grazing. It would be interesting to see what that is based on.

Dr Morton—The question becomes a bit more focused now. The information in that summary statement is certainly based on scientific studies. That is clear. What is not clear to me is the degree to which mapping of change in grazing areas has been undertaken in association with those studies, and that is what we would have to take on notice and get back to you about.

Ms PANOPOULOS—I am particularly interested in my area because, if the statement is made, in opposition to a lot of anecdotal evidence on the ground from locals, that grazing did not make an impact, I want to know whether there is any specific information in areas upon which that information was based.

CHAIR—There would be historical satellite imagery of areas where that sort of interpretation could be done, wouldn't there?

Dr Morton—Almost certainly, yes. The importance of the question is such, though, that rather than answer it off the cuff it would be better to get the correct answer to you in writing subsequently.

Mr Vercoe—Also the submission perhaps does not define particularly well what the alpine region is. Perhaps it is more a question of defining what the submission refers to. That is what you are getting at with the mapping.

Ms PANOPOULOS—That is a very good point.

Mr Vercoe—There is a difference there between the forested alpine areas and the open alpine areas.

Mr SCHULTZ—I am not quite sure who could answer this. Do you have a view on the effectiveness of the National Aerial Firefighting Strategy? In your opinions, were aircraft appropriately deployed and effectively used during the recent January fires?

Mr Vercoe—I will throw that to Phil.

Mr Cheney—I think the use of aircraft in Australia requires a very thorough look and overhaul because, based on research overseas, we are not using aircraft in this country very efficiently. Of all the different types of aircraft and the studies that have been done on them, the one single factor that has been shown to most improve the efficiency of the operation is having it closely aerial supervised. It is a form of firefighting where there is a potential for vast expenditure. It has to be directed properly and directed with the recognition that aircraft are limited in what they can do. Our own studies from Project Aquarius back in 1985 indicated that even the largest aircraft that was available in the world at that time, and it is probably still the largest aircraft that is available for firefighting, could not do any better than ground forces with a bulldozer.

In practice, any aerial operation has to be supported with ground fire line instruction. If it is not, it may or may not slow the fire. The air operators, depending on their inclination, may say it did or it did not. But, unless they are properly supervised and the direction of the fire suppression is undertaken, it can be a waste of money. In many cases, I think, in these recent fires there was certainly an overreliance on helicopter attack to slow the fire without the support coming in on the ground. I think analysis in the future will show that the aircraft attack alone had very little impact on the overall spread unless it was supported by ground crews.

Mr SCHULTZ—I have a few questions to ask on this, so I hope the committee will bear with me. What about the issue of the use of fixed wing aircraft, particularly Dromaders and Air Tractor 802s, which are agricultural aircraft that have been converted to drop up to 3,000 litres from their bomb bays? I understand that the bomb bay conversions cost up to about \$100,000 and that the experienced pilots who fly these aircraft have used them in the Kosciuszko area for over 20 years. What are your views with regards to the effectiveness of those aircraft, given the comments that you have just made, in getting into fires in the early stages—certainly within 24 hours of ignition—and suppressing or containing the fires until the ground troops get in?

Mr Cheney—The success of any initial attack system depends on the speed that you get it there. Certainly if aircraft are distributed through the mountain areas—as is the case in Victoria, where they have set up specific bases in mountain areas—then they do have the effect of being able to hold fires for a period of time, especially if they are effective in operating on the first evening of the lightning strike. But if they are not followed up by ground forces overnight then they are likely to lose that advantage. The use of aircraft is greatly enhanced by the use of diammonium phosphate retardants.

Mr SCHULTZ—What would your comments be on information that we received that there were fixed wing aircraft of that type that were available to be used in the early days of, say, the McIntyre's Hut fire and were not called upon? Would you be surprised to know that not one fixed wing aircraft was called upon in these fires in New South Wales during January?

Mr Cheney—Specific comment on the McIntyre's fire I would like to put aside because of my responsibilities of advising the coroner on that issue and I am sure it will be raised with her.

Mr SCHULTZ—I understand.

Mr Cheney—In general terms, I would say that the use of aircraft does require preparation. Some states have set up to do it and other states have not. In each case where a state has set up to use light agricultural aircraft they have found that there is a role. The study we did, a desktop economic study, showed that using several of these aircraft dispersed across the state was more efficient than buying one very large single-purpose aircraft.

Mr SCHULTZ—Do you have an opinion on, for example, the role of the Rural Fire Service in New South Wales of coordinating aircraft in bushfires? I ask this question because many of the aircraft operators are highly critical of that role because they say that the Rural Fire Service, who have control of them, have no experience in aviation or the way in which aircraft operate and under what conditions they are effective.

Mr Cheney—I go back to the comment I made right at the start, that efficient use of aircraft really requires direct aerial supervision by someone who is a trained air supervisor. One can say that there should not be a delay in dispatching the aircraft and dispatching the supervisory aircraft to supervise the drops. That person can do other things between sorties, but directing the drop to the optimum position requires a degree of fire behaviour knowledge and a degree of knowledge of the operations that are being carried out.

Mr SCHULTZ—Finally, would anyone like to make a comment on the weather conditions from the first day of ignition, which I understand was 7 January? Were those weather conditions, in your opinions, receptive to very early aggressive suppression of the fires in the initial stages?

Mr Cheney—Yes, they were.

Mr ORGAN—Mr Leonard, can you tell the committee what research CSIRO is undertaking in regard to the issue of asset protection and the whole issue of the importance of the implementation of hazard reduced zones in, for example, urban areas such as the Illawarra as against the broader issue of broad scale hazard reduction?

Mr Leonard—Hazard reduction is not something that my research team specifically focuses on. Our objective is to look at the specifics of building design, human behaviour and the siting of the actual house and the very localised impact that the siting has on the structure itself.

Mr ORGAN—Do you deal with these 50-, 70- or 100-metre zones around that as well?

Mr Leonard—The way we deal with that is to develop a range of appropriate construction methodologies depending on where the building is placed in relation to those zones rather than mandate or suggest that those zones exist so that the people at the urban interface have a wide range of lifestyle selections they can adopt.

Mr ORGAN—So it is mainly focused on building materials?

Mr Leonard—Building materials, construction detail, localised siting, detailed construction methodologies and layout.

Mr ORGAN—So your group does not specifically deal with the relationship between the built environment and the natural environment?

Mr Leonard—A good way to describe it would be to say that we do not deal with issues beyond the back fence of the property. We look for other researchers to provide a description of the type of fire that would reach the perimeter of the property and then we would deal with the design and layout of the property itself so that it is appropriately designed and considered in relation to that level of attack.

Mr ORGAN—Is there anyone here today who deals with that more immediate protection zone?

Mr Leonard—I would pass it to forestry and forest products—they deal with fire behaviour in the forest environment.

Mr Vercoe—Peter and maybe Phil might comment on that. It might be two parts of the same thing.

Dr Ellis—Are you talking about the zone around the house?

Mr ORGAN—Yes. Are you aware, for example, that just recently Wollongong City Council commissioned an asset protection zone study to determine how much it would cost to implement that zone, provide detailed mapping of the properties and the area around it and various regimes for hazard reduction et cetera. I am aware of broad-scale hazard reduction and we have heard about the built environment asset protection area. Are you investigating the cost implications and how you would get that implemented to protect individual properties Australia wide or is it focused at the moment on materials?

Mr Leonard—We are certainly not considering research of the scope of trying to find the most cost-effective balance between implementing asset protection zones and the level of construction detail you need to implement at the urban interface; we are trying to provide the largest range of potential solutions for any given situation, so as to provide the most appropriate construction detail for any given level of attack and leave it to the responsibility of more broad-reaching authorities or regulators to make cost-benefit decisions on whether you implement an asset protection zone or put the onus on more stringent building design to mitigate the additional level of attack.

Mr ORGAN—Finally, Dr Ellis, what role is CSIRO playing to assist governments such as Western Australia to investigate the ecological aspects of their broad-scale hazard reduction programs? In evidence we heard when visiting Western Australia, even though they are engaged in broad-scale hazard reduction on a very large scale, they did admit that a lot more research needed to be carried out on the ecological impact of that burning regime.

Dr Ellis—I am only involved a small part of that CSIRO study—I would like to refer that to Phil Cheney.

Mr Cheney—Steve on the ecological side is probably better placed.

Dr Morton—It is clear from our submission that the ecological aspects of hazard reduction burning are generally understood, but getting answers to the best balance in the trade-off between hazard reduction burning for purposes of reducing risk to human life and infrastructure

and the balance of biodiversity in the natural system remains uncertain in most places. It is really important to get across the perspective that this truly is a trade-off and that, if hazard reduction burning is instituted regularly for purposes of protecting human life and infrastructure, there is almost certainly some long-term change in the nature of the ecosystem.

Mr ORGAN—You have just said that it is generally understood.

Dr Morton—It is understood in general terms that that is the case, but knowing precisely what the answers are—what that trade-off requires—in any one region remains somewhat uncertain. The Western Australian work has gone a long way towards identifying what the trade-off might look like from the ecological and biodiversity perspective, but I would not be confident that generally speaking around Australia we know, region by region, what that trade-off might look like.

Mr ORGAN—That was my question: what role is CSIRO playing in regard to finding out some of those ecological impacts?

Dr Morton—In certain places, for example the Top End, we have major work going on; we have some minor involvement in the Western Australian work. They are the two that spring to mind. Tim, do you have any other comment?

Mr Vercoe—In the submission it talks about the burning guides that have been developed in Western Australia by CALM over quite a number of years.

Mr ADAMS—A lot of science has gone into it, hasn't it?

Mr Vercoe—That is right.

Mr ORGAN—Excuse me, from my information there are a lot of unknowns, and that is the whole point I am trying to get at here. There are a lot of unknowns; there are major burning regimes going on in areas such as Western Australia and the science just is not there in regard to the detailed impacts of that burning on the environment.

Mr Vercoe—I have to say that the science that has gone into the burning guides is probably better than anywhere else in Australia. In a lot of these contentious issues in public, there is never going to be enough science to satisfy all sides of the argument. What we are doing, I guess, through the science that we are undertaking, is trying to outline a series of outcomes and how you can predict what those outcomes are. It then comes down to policy makers like you or people in the community to decide which outcome they actually prefer. I think that the issue that you have raised is a good one, in that we do not have, for much of eastern Australia, a set of burning guidelines that are anywhere near as scientific—even though we can debate about the science that is in the Western Australian ones, if we had those in the east as well that would make a large difference to what we could achieve over here.

Mr ORGAN—If the lack of science is resulting in the loss of biodiversity and the loss of various species, I think it is an area that, based on the submissions and various testimony to date, we really need to focus on at the micro scale: exactly what the impacts are of large-scale hazard reduction.

Mr Vercoe—And I guess we have tried to raise that in the submission as well: that, particularly in populated areas of the south-east and the south-west, you have this issue of needing to protect life and property and undertaking hazard reduction burning as an essential part of that process, while at the same time the hazard reduction burning process necessarily has an outcome on the biodiversity which is not necessarily positive—it could be positive or negative. Given the complexity of the biodiversity, it is very difficult to predict the outcome in every possible circumstance. These burning guides attempt to show what sorts of outcomes you might achieve under different burning regimes, both on the biodiversity side and on the hazard reduction side.

Mr ADAMS—Would it not be fair to say that there has been fire in those forests for a long time?

Mr Vercoe—Yes. I am not going to go too far out on that limb, but yes.

Mr ADAMS—Dr Morton said that in general terms we accept that the biodiversity has been changed. Well, biodiversity has been being changed for a long time—since we have evolved into whatever we are now.

Dr Morton—Quite so. The response to that question is that from the point of view of national park management, leaving aside the issue of human life and property for a moment, the best principle that the ecological science can offer is that one should attempt to institute as varied a fire regime as possible. That is the best guarantee we have, given our current state of knowledge, for the maximum proportion of that natural biodiversity to persist. Hazard reduction burning clearly pushes the system somewhat away from that, but as scientists we have to recognise that there is a clear policy and community reason for instituting hazard reduction burning; it is finding the point of the trade-off that is acceptable from the point of view of these different perspectives.

Mr ADAMS—That is different from what I am saying to you. I am saying that fire has been out there ever since we evolved and ever since the landscape of Australia has been at a certain stage—for thousands and thousands of years. We cannot deny that fire has changed or evolved the biodiversity that exists now. People talk about extinction of certain plants after a major fire has gone through, but isn't it only extinction until the biodiversity renews itself? The survival instinct of plants and seeds—through the air or whatever—is such that the seeds end up in that region again.

Mr SCHULTZ—That would depend on the intensity of the fire, wouldn't it?

Mr ADAMS—Isn't that how the biodiversity renews itself?

Dr Morton—I think we are in furious agreement. But extinction is extinction.

Mr ADAMS—That is why I object to the word 'extinction'. It is a very bad word that has been used throughout your submission. I do not think it describes what actually occurs.

Dr Morton—Okay; point taken. When that word is used it should really be in the context of local disappearance, not extinction of the species from its range.

Mr ADAMS—I submit to my Greens friend here that there are certainly areas where we need to be careful and there are areas that would be more sensitive than others. The study of the fire regimes in the Brindabellas is in your submission, and burns increased between 1860 and 1950. I have not been able to find that because I do not have numbering on all the submissions, but I would be interested if you have that handy or if you would like to make a comment on that.

Mr Vercoe—I am just looking for it now.

Mr ADAMS—What techniques are used to establish that?

Mr Vercoe—'Local extinction' is used only in that part of the submission. I think it is used only once or maybe twice. It is a poor choice of wording. I am looking for it now but I cannot find it.

Mr ADAMS—We have this assertion of great difference. There is a different regime in managing it now. We have to come up with new ways of doing it and we need the science, but the science gets confused from time to time, so there is a need for us to actually find some mechanisms. The Western Australian regime seems to be in front of anywhere else at the moment, from what we have seen and from evidence put before us. Would you say that, Dr Morton?

Dr Morton—I think that that is a fair comment.

Mr Cheney—You get a change of species, which Steve referred to, whether you burn frequently or whether you protect. Some things go out and some things come in. The question about whether or not a certain burning regime should be applied becomes a management priority. The problem we have in research is that often these become very species specific and you focus on the requirements of one species. We certainly have a lot of work to do in that respect. The work I have been associated with has mostly been looking at plants in the Brindabellas and on Black Mountain. In a 20-year study—and this was in the Brindabellas burning various rotations, the shortest being every three years—we found no change in the species composition; there was a change in the abundance. They got burnt out this year.

CHAIR—How much is left now?

Mr Cheney—The plots are still there and the plants will come up. We will have a look at what form they come up in.

Mr ADAMS—There was very good evidence in Western Australia—maybe it was from the Conservation Council—that in areas of rocky outcrops, deep valleys and deep gullies there is a different and much older regime. They have not been burnt over a much longer period of time, because fire goes over the top of them or misses them. Is that your experience?

Mr Cheney—Yes. I think that, if there is a frequent fire regime which is applied basically under moderate weather conditions, these niches are more likely to be left behind. As these recent fires showed, when you get extensive fires under drought conditions, the burning is also very uniform. It goes into just about every niche. It is only very remote niches that miss out. The argument that people that are promoting prescribed burning put forward is that if you want to

protect these special niches then you should apply the burning with that as one of the objectives that you have in mind.

Mr ADAMS—Is what they call mosaic burning, in your professional thinking, the way to go? Is that the way to achieve that?

Mr Cheney—I think people have an idealistic conception of mosaic burning. Basically, dry areas will burn and moist areas will not. The only way you create a mosaic is by using a moisture boundary. That normally ends up being the creeks. Littoral areas on either side of the creeks are the ones that stay unburnt for the longest time in a frequent burning regime.

Mr GAVAN O'CONNOR—It is great to have a body of scientists here to advise us on these things. There has been a large body of evidence given to the committee on the pros and cons of hazard reduction burning and, particularly, its impacts on biodiversity. It seems to me that it is a very complex issue that is very difficult to generalise about. Given the frequency of fires in south-eastern Australia, at what level are we in the science in terms of mapping the biodiversity of regions or fire prone areas and developing and using that as a strategy for either conducting or not conducting prescribed burning to defend property from fire and to avoid bushfires? Is that too difficult a question?

I would like to tease this out because we have heard regional dimensions mentioned here. We know that there has been a preponderance of fire events in south-eastern Australia, and the science seems to be telling us that it could get more frequent. It seems to me the imperative of upping the knowledge in particular regional areas is pretty important in avoiding the sorts of community divisive debates that we tend to have.

Mr Vercoe—I am going to split it into two parts. I am going to ask Steve if he would comment on how well we understand the ecological regions. Then I would like to ask Phil how well we understand fire behaviour within and across those regions. Perhaps we could tackle it that way.

Dr Morton—You put your finger on the nub of the problem. To go back to the overall issue, my perspective on this is that it would be most unwise if all of a particular region was burnt through hazard reduction. That would shift the system in a direction that we probably would not want as a society. Equally speaking, at the other end of the spectrum, it would be a terrible mistake if we allowed our natural systems to be burnt by the sorts of severe wildfires that we just experienced as a matter of course. Somewhere in between those two poles lies the balance that we are all after.

How can science help arrive at a conclusion about where that balance might lie? To some extent, science can help by describing the effects, in ecological and biodiversity terms, of the sorts of hazard reduction burning that local fire authorities, in concert with reserve or park managers, would suggest. It is hard to put proportional or percentage terms on how far advanced we are on that; as I said before, it varies from region to region. But, broadly speaking, we are still very much in the exploratory phase of understanding enough to provide clear advice. That is how I view the problem.

Mr GAVAN O'CONNOR—Once the science is undertaken, how do you translate that into a basis for a practical strategy for sets of communities and community agencies like the brigades, local governments and whatever? Have you any thoughts to offer us on the interface between the sort of work that you do and the practical strategies that from time to time are developed on the ground by communities or agencies?

Dr Morton—That is an excellent question and I am going to bounce it quickly to my colleagues, but some introductory remarks beforehand. I think that is precisely the reason why the bushfire CRC has come into existence. It has become clear that the development of scientific understanding is insufficient in itself. It is necessary, but a connection with community and with land management agencies is critical. That is one major function that the CRC will play out—such that the advice we can provide from a scientific perspective flows through into those agencies and bodies that have that responsibility. I need to ask my colleagues about the way that connection will be established in the future.

Mr Vercoe—The CRC recognises that we have not integrated what we know about fires with how we act in the face of fires. It is integrating the physical sciences with fire behaviour, building design and so on with social elements—understanding how communities arrive at decisions, how they prepare themselves for natural disasters and other things—and also how to train the professional and the semi-professional bodies that deal with fire. That is our way of integrating what we understand about that.

Mr GAVAN O'CONNOR—In your executive summary you say:

But on the other hand, frequent low intensity burning for fuel reduction purposes has effects on ecosystems and the species in them that are not always positive.

I am trying to get a feel for what 'not always positive' means. Are we just referring here to the extinction of species or are we referring to other things?

Mr Vercoe—It gets back to what my colleague was saying about the mosaic and the variability of fire regimes across the landscape. In areas where there have been repeated low intensity burns I guess you get a particular outcome. Again, this issue of what is positive and negative is, in a lot of cases, a community perception of what is positive and negative.

Mr GAVAN O'CONNOR—The dilemma for us, as laypeople hearing this evidence, is this. If you have a mosaic series of low intensity burns, which we are being advised could damage an ecosystem, and land management practices and other things that set a scenario under certain climatic conditions for high intensity wildfires of greater frequency, what direction do communities take in the face of these variables?

Mr Vercoe—This is the trade-off. I guess it depends on where the communities are and how frequently they encounter this sort of thing. Communities in extremely fire prone areas will trade off a certain amount of biodiversity variability for greater protection and safety of their homes.

CHAIR—But isn't biodiversity going to be lost anyway if you have those incredibly intense fires? It is going to happen eventually.

Dr Morton—That is right, and that is why some form of hazard reduction burning is essential; nobody is disputing that. I do not think anyone is saying that ecosystems are damaged by this form of burning. They will be altered. I do not think there is any sense that they are damaged.

Mr ADAMS—No mutations come from it. There seems to be a denial that burning has occurred in Australia for thousands and thousands of years and it has had an effect on the biodiversity.

Mr GAVAN O'CONNOR—I do not think we need to get into that debate here but I think some evidence came through in some of the alpine areas of significant damage by high intensity fires.

Dr Morton—I was not disputing that. I thought you were referring to hazard reduction burning 'causing damage' to a system. I do not think the CSIRO people would use those words; they would say that it alters the system.

Mr Cheney—Before we go on to fire behaviour, the application of prescribed fire has to consider priorities and these priorities are something that science can help determine. There is a recognition, particularly in relation to island reserves, that if a single high-intensity fire takes out the habitat of a specific species, that species would no longer have the capacity to recolonise the area. So the management may set out quite deliberately to do a patchwork of low intensity burning specifically for that species—and other species would have to be catered for elsewhere. So you are never going to get everything on the same block of land at the one time. As management of native areas becomes more sophisticated, from a fire behaviour point of view I would be looking to be able to prescribe the sort of fires that the management requires to meet their objectives. Our knowledge of prescribed fire behaviour is very good but it is a science and it requires professional people to manage it.

Another problem we are running into generally across Australia is that science has largely rested with the forestry profession. With the decrease in production forestry, particularly in native forests, there has not been the same transfer of expertise over to the major national park land managers. Fire is one of those beautiful things—anybody who is out on the land and has dropped a match reckons they can do burning, and often does. But meeting specific objectives requires professional planning and professional implementation. Unless we are prepared as a society to put the money into professional management of fire in our forests and parks then we will certainly lose something.

CHAIR—Is there a role for local experience and expertise in the transfer of that information through to the application on the ground? I will give you an example of some evidence the committee got from one of the volunteer bushfire brigades in the Blue Mountains—Kurrajong Heights, which is a pretty fire prone area. They gave evidence that over time, because of their local understanding of the bush there, they had determined the different regimes that they needed to hazard reduce. They had built up a program of hazard reduction that ranged from about four or five years in some areas through to some areas that they would not touch for a 15-year period. They had had no major asset losses as a result of the various fires that had hit. That seemed to be a very good on-the-ground application of what a lot of people are trying to tell us we should be working towards. My initial question was: is there a role for those people? They may not be

scientifically qualified in specific biological aspects but they have a very good understanding of how fire works and how their particular areas burn.

Mr Cheney—I certainly agree that in many respects professionalism is a skill and just because someone is a volunteer does not mean they do not have some of that knowledge. But in extending that to a wider community you have to be extremely careful in terms of the training that goes on. The latest prescribed burning disaster that we had, which should never have happened, was done by someone who was said to be very experienced, but who was not following a professional approach to the job.

Dr Morton—In general terms, the more that local knowledge can be utilised and put together with science, the more everyone will win. That is certainly the case.

CHAIR—Mr Cheney, has there been a shift from fire prevention to fire management?

Mr Cheney—I would put it the other way: there has been a shift from fire management by land management agencies to emergency response agencies.

CHAIR—The emphasis is on suppression.

Mr Cheney—The focus has shifted to suppression.

CHAIR—Rather than prevention?

Mr Cheney—Yes.

CHAIR—I am talking about wildfires.

Mr Cheney—Yes, I agree. The whole business of managing fires has shifted towards a more suppression oriented approach by the amalgamation of emergency services operations rather than putting the primary response back on the land manager and having the emergency service operations coordinate that response when it is needed.

Mr SCHULTZ—Has that slowed down the process that used to occur where fires were attacked very quickly—in other words, because of that process is there a delay in getting to the fires as quickly as we used to?

Mr Cheney—There is a tendency to that. If you were to compare the response of, say, State Forests in New South Wales to other land managers, their principle is still to have fast initial attack and use of bulldozers on initial attack. That is not reflected everywhere else by other land managers.

Mr SCHULTZ—I have a question regarding the intensity of fires. The committee inspected a significant area of the alpine country between here and Victoria. We saw vast tracts of alpine country that had burnt so hot that granite boulders had exploded. The locals tell us that the seed stock that is normally in the ground vaporised. After rain you could see the growth on either side of those vast tracts reoccurring but nothing occurring in those hot areas. What is your professional opinion, Phil—I know you have done a lot of work in that area—of those burnt

areas? If there is no seed stock there, how do we get the undergrowth and the species to regenerate? Do we have to seed from the air? Is the soil sterilised because it has been subjected to so much heat?

Mr Cheney—Let me put it this way. There were certainly areas, burnt under the extreme conditions, which not only suffered a fire effect, but where extraordinarily strong winds moved a lot of material off the surface to the degree that the bark on certain species had been sandblasted off by the moving soil. There is an enormous loss in certain small areas. Some are quite big—it runs into tens of thousands of hectares over the whole area—but small perhaps in comparison with the overall area that was burnt this season. In those areas, a certain amount of the seed that was in the topmost layer of the soil will disappear. Other seeds, deposited lower in the profile, will undoubtedly regenerate. It is difficult to generalise, but probably there will be strong legume regeneration through a lot of those areas.

Whether the ash forests regenerate will depend a bit on whether they were carrying seed at the time and then what happens to it. In the areas west of the ACT the forest will—I would conservatively say—take more than 200 years to return to anything like their original condition because many of the trees have not shot; only the largest have shot from the base. That means you will have a coppice forest, or a coppice style of forest, in that area. It will be a long time before it comes back to a single-stemmed forest.

CHAIR—Has CSIRO had a look at the product shown to the committee called Barricade fire blocking gel? It is a gel sprayed on buildings, cars and those sorts of things to protect them.

Mr Leonard—I am sure we are aware of the product.

CHAIR—Do you have comments about the consistency of it? There was some question about toxicity. In what detail have you had a look?

Mr Leonard—We have only had a very cursory look at it in terms of its performance in a fire. It certainly does add additional protection to the structure. But there are other things we have not investigated, such as whether there it damages the structure, whether it can be removed, and whether it has environmental implications when it is washed away or washed down the drain. We always feel that permanent protection measures on structures are far better strategies than something that may or may not be initiated at the appropriate time prior to the fire attack.

CHAIR—Mr Vercoe, did you want to comment on your evidence last time with respect to the houses that were saved? You wrote to us saying that the statement you made was wrong.

Mr Vercoe—I made a pretty bald comment that people could save their houses if they stayed. The emphasis was on the spots and embers—that at some point they could do some work if they knew what they were doing and they were prepared, et cetera. The way it came out was a lot more direct than that and obviously caused some distress, which I regret. I would ask Justin and Peter to comment with respect to people and property.

Mr Leonard—The management of life risk during the fire event is far more complex than simply ‘houses lost’ statistics or the pursuit of saving house assets. An undeniable correlation from past research shows that houses stand a much greater chance of survival when human

intervention is present. It is the most dominant single factor determining the potential of a structure to stand after a bushfire event.

Mr Vercoe—Having said that, I would qualify it, because I know from past experience that in a whole lot of circumstances people will lose their houses regardless of whether they stay or go or the level of preparation and so on.

CHAIR—Has any more detailed analysis been done of the Canberra fires in that respect?

Mr Vercoe—I will pass that on. Some work has been done in response to some of the locally based inquiries.

Dr Ellis—I have done a report for the ACT government looking at the initial fire attack on the suburb and the effect of gardens. Mostly, we looked at certain case studies where residents stayed. We had various personal comments about the success, or lack of success, of these residents. I do not think I am liberty to give any of the results but I will say generally that it follows findings or knowledge that already exists about house losses at the urban interface.

Mr Leonard—It is probably important to emphasise that in Duffy, where the highest density of house losses occurred, the houses were not impacted on or ignited directly by the fire or radiation load from the fire front itself. They were attacked by embers. The progression of house loss throughout the Duffy area was by ongoing ember propagation and house-to-house ignition.

CHAIR—You have probably followed the inquiry and some of the evidence. In finalising, is there anything you would like to add about any other information that has come to the committee?

Mr Vercoe—It struck me when we were talking before about hazard reduction that hazard reduction is not going to stop fires from happening; it has an impact on the intensity of the fire and the ability to fight the fire later on. I would just make sure that is recognised. We discussed a couple of points before coming here. We need to take a holistic approach to tackling fires. We have tried to give you some of the science—the biological and physical and so on—but, as we said when talking about the CRC, that needs to be integrated with communication strategies and community preparedness and training. Merging the technical and social aspects is critical.

Community education is fundamental in terms of house design and construction and preparedness in general. In terms of the prescribed burning, I emphasise one of the points Phil Cheney made about the application of the science to a receptive professional community—people who deal with fires on a professional basis and are able to take high-level information and implement it. The community must understand and have clear objectives and guidelines for carrying out prescribed burning, so we know where we are on the spectrum of protection and biodiversity management.

CHAIR—Thank you for your evidence today and your submission. We greatly appreciate it.

[11.25 a.m.]

BOEKEL, Mr Con, Assistant Secretary, Parks Australia South, Department of the Environment and Heritage

LEAVER, Mr Bruce Herbert, Head, Heritage Division, Department of the Environment and Heritage

NOBLE, Mr Stewart, Assistant Secretary, Natural Resource Management Policy Branch, Department of the Environment and Heritage

CHAIR—Welcome. Although the committee does not require you to give evidence under oath, I should advise that these hearings are formal proceedings of the parliament, and consequently they warrant the same respect as proceedings of the House. It is customary to remind witnesses that giving false or misleading evidence is a serious matter and may be regarded as a contempt of parliament. We have Environment Australia's submission, which was authorised for publication. Would you like to make any opening remarks?

Mr Leaver—Firstly, most of the areas covered by the fires in eastern Australia last fire season are on the Register of the National Estate. That is maintained by the Australian Heritage Commission, of which—wearing another hat—I am the Executive Director. I want to comment on the heritage issues and on a broad environmental issue and then let the submission stand on its own.

The loss of heritage was not confined to the destruction of the stockmen's huts and other historic items, such as those associated with early mining and hydro-electric development. There was clearly a widespread feeling of loss regarding damage to favourite places within the community. Much loved areas of forest and woodlands were lost, which were associated with people's memories of enjoyable experiences, often with friends and family and dating back many decades. The other obvious cultural response was one of community anger. Many people have historic connections to the High Country. The stopping of grazing 40 years ago continues to be bitterly resented by those who identify with the culture of mountain cattlemen, and national park management is a day-to-day reminder of their loss. The intense public interest surrounding the bushfires provided a ready opportunity to express that sense of loss and resentment. So the bushfire outcomes are as much a social and cultural issue as a physical issue associated with damage.

The environmental issue I wanted to comment on was the matter of catchment protection, which is mentioned at various stages in our submission. At the risk of stating the obvious, the mountains are vital catchment areas that provide water for irrigation, hydro-electric development and human consumption. The area that is now Namadgi National Park was included in the Australian Capital Territory to provide catchment for Canberra's water supply. Kosciuszko National Park was established in 1944 to protect the catchments. After protracted debate over half a century about the impact of grazing and burning on the High Country and the strong representations of the then Soil Conservation Service of New South Wales and the New South Wales Forestry Commission, the Kosciuszko State Park was proclaimed in 1944. Grazing was

removed from the Kosciuszko summit area and the soil conservation program was started. It was not completed until the 1970s. Grazing was finally removed at the behest of the Snowy Mountains Hydro-Electric Authority in the early seventies as a measure to protect catchments. The matter of grazing is of great debate in Victoria.

The last broad area controlled burning program in Kosciuszko, over the seventies and eighties, was implemented for catchment protection purposes and was stopped for the same reason. Fire management and catchment management are inextricably entwined; bushfire fuel and catchment vegetation cover are, in fact, the same thing. Management programs that regularly bare the soil, leaving catchments vulnerable to water, wind and rain, should be avoided, particularly in the areas adjacent to water impoundments. Programs that damage water tables and wetlands should similarly be avoided in view of the contribution of these areas to water yield.

Mr ADAMS—I am interested in the Ramsar sites and how you monitor them after fire—or monitor them at all. How do the monitoring regimes work on the Ramsar sites after fire?

Mr Noble—The Department of the Environment and Heritage is not responsible for the on-ground management of most of the Ramsar sites unless they are within Commonwealth national parks. The on-ground monitoring is undertaken by the state and territory agencies.

Mr ADAMS—Does Environment Australia pay the states or is there an arrangement through state and federal funding to monitor that?

Mr Noble—No, the states undertake those responsibilities themselves.

Mr ADAMS—Is there a protocol to that effect? A Ramsar site comes into being by the Commonwealth giving it the tick, doesn't it? You must know how the process works so you can tell me.

Mr Noble—Yes, the Commonwealth and the states agree that a wetland could be nominated as a wetland of international significance and it is agreed internationally. Under the Commonwealth Environment Protection and Biodiversity Conservation Act, plans of management for—

Mr ADAMS—So after a fire the Commonwealth does not monitor—

Mr Noble—No. The on-ground responsibility for the management of Ramsar wetlands or threatened species is the responsibility of the appropriate land manager.

Mr ORGAN—In your submission, on the first page, you say that the Commonwealth government has a 'responsibility to protect nationally listed threatened species and ecological communities'. You also point out how changed fire regimes are one of the biggest threats to ecosystems across Australia and one of the principal threats to biodiversity. What does Environment Australia do at the grassroots level? In my experience, Environment Australia and the EPBC Act have not helped anyone in my electorate.

In your submission you talk about Kakadu. You say there was large-scale burning of north-west Australia last year and that fires were lit from both the ground and the air in a prescribed

burning program. I heard testimony that air bombing of incendiaries into these areas was causing large-scale fires—even by CALM, the relevant body. The people over there were saying, ‘What is the ecological impact of all this?’ What role does Environment Australia play in protecting nationally listed threatened species? What is Environment Australia actually doing on the ground?

Mr Leaver—The Commonwealth’s involvement is limited by its constitutional capacity to be involved. The Commonwealth has no constitutional capacity to be involved in land management and resource management, and the states accept that. Where it is pursuant to some sort of convention, like the World Heritage Convention or the Migratory Birds Convention or the biodiversity convention, we formally engage with states and territories. Most of the areas that were the subject of so much bushfire last year in eastern Australia are covered by what is called a ‘memorandum of agreement’. For example, on the management of the Australian Alps there is a four-party agreement between the ACT, New South Wales, Victoria and the Commonwealth. We are engaged in cooperative management over a range of issues subject to that agreement. The specific matter of endangered species concerns Environment Australia and its relationship with the states, which I will ask Mr Noble to elaborate on.

Mr Noble—Commonwealth responsibilities, as they relate to nationally listed threatened species and communities, include the development of recovery plans for those threatened species and communities. That is often done in conjunction with the state and territory agencies. That is drawing on the best available evidence to identify actions for the management of those species to ensure their long-term survival. The Commonwealth is also responsible for implementing those recovery plans on the lands that it manages. Through programs such as the Natural Heritage Trust, the Commonwealth will also fund specific recovery actions identified by regional groups for the recovery of those species and communities. But the primary responsibility for the management of threatened species and ecological communities on state managed lands is with state and territory agencies.

Mr ORGAN—So, if a threatened ecological community or threatened species is listed under the EPBC Act, you have no direct role in its ongoing protection. A fire regime could be set up, or a development could be proposed, which could destroy or severely impact on that species or environment and you are saying that it is up to the state government authorities. You are saying it is their responsibility—you have not necessarily got responsibility under the EPBC Act.

Mr Leaver—Except to protect the site. It would be illegal for any person to take an action that could have a significant impact on the listed values of that particular site for that particular species. In that event, the EPBC Act would be triggered. The minister is empowered by that act to call for an assessment of that development and to make a determination whether to modify the development or prohibit it outright. If the minister does not do that, any interested person can apply to the Federal Court to ensure that those provisions are adhered to. That is under the current operation of that act.

Mr ORGAN—As a local community group we went through that whole process and, at the end of the day, Environment Australia basically did not help us at all. Getting back to bushfires, what role are you playing in making people aware of the ecological and biodiversity impacts some of these fire regimes are having and will have in the future? What role will you play in providing information to the various authorities about their responsibilities?

Mr Noble—That particularly occurs through the development of recovery plans for threatened species and communities to identify what are the best management actions to undertake to protect those species and communities. That is done in conjunction with the land management agencies, and then land management agencies might embed that in their management plans, for example.

Mr ORGAN—That is recovery plans. What about hazard reduction plans and things like that? Are you talking about recovery after a major incident?

Mr Noble—Recovery for that species or community.

Mr ORGAN—What about forward planning? If you are aware of certain sites where there has to be some sort of fire regime, are you also having input into that stage?

Mr Leaver—I am on the independent scientific committee that is having input into the revision of the Kosciuszko plan of management. I have been on that for some time. I have had input in that committee, and it has published documentation on this material on fire management. I have also had input into the preparation of joint fire management objectives for those four jurisdictions that are party to the memorandum of agreement on the cooperative management of the Alps. We assist where we can and are involved where we can be.

Mr ORGAN—The Australian Heritage Commission has recently been changed through the parliamentary process. You say on page 5 of your submission that items which are on the Register of the National Estate will have their records upgraded or be recommended for removal from the register if they have been damaged, et cetera. This is almost saying, 'If it gets burnt or destroyed, that is the end of it. We'll just take it off the list. It no longer exists.' What role will the Australian Heritage Commission play in the future to ensure that items on the list are not severely impacted by wildfires and fire regimes?

Mr Leaver—That is the reason I am assisting the New South Wales government on this independent scientific committee. The heritage bills that were passed in the Senate yesterday will be going to the House of Representatives in the week beginning 8 September, as I understand it. Those bills include continuation of the Register of the National Estate—despite some press comment to the contrary—and the replacement body, the Australian Heritage Council, will maintain that register and add places to it, as well as the other responsibilities given to it by the legislation. The heritage values of the various items in Kosciuszko National Park have to be checked to see if they are still there, but the fact that they have been burnt does not necessarily mean that all the heritage associated with that site is no longer there. There could well be a role for recording and acknowledging what was there, either in published documentation or even in explanatory material on site. That has to be assessed on a state-by-state basis. It does not necessarily follow, because it has gone up in smoke, that all the heritage values of the site are diminished. That is certainly not the case.

Mr SCHULTZ—Reverting to your opening comments about Kosciuszko—I know a little bit about Kosciuszko; I represented it for 10½ years as a state member—you are quite right in saying that the Kosciuszko National Park was set up in 1944 by the federal government at that time.

Mr Leaver—The state government.

Mr SCHULTZ—The state government. You say it was established to protect catchment; it was also established as an open parkland for the community. I was interested to hear the historical facts since that time: that cattle grazing was removed to protect the catchment and hazard reduction burns were stopped to protect the catchment. Don't you think it is ironic, given all those contingencies today, that 65 per cent of the protected area has been destroyed? I refer also to the issue of feral animal control: I, who have an interest in the Kosciuszko for a number of reasons, am dismayed to see that a significant number of feral animals are coming out of the park onto private property and being killed in large numbers by adjoining land-holders, but that the managers of the park have done absolutely nothing to wipe out the feral animal elements within the Kosciuszko, which are the most significant threat to those surviving species that we need to protect in the best interests of the long-term future of those species. This indicates to me that we do not have best management practices operating in the Kosciuszko. What is the Commonwealth's role in relation to making that known to the state people and what can we do about it? What I am seeing is alarming. Would you like to make some comments on that?

Mr Leaver—Yes. Again, it is that constitutional matter: the resource management is a constitutional responsibility of the states, and the Commonwealth has a very limited role in whether it engages with the states. It is normally confined to World Heritage matters, endangered species matters and biodiversity matters. Like you, I have been associated with Kosciuszko for a very long time and have noted the various debates and community discussions about management issues. I well recall that in the late 1970s or early 1980s wild dog control on the perimeter of the Kosciuszko National Park was a huge issue. The debates were entered into between the parks service, the Cooma-Monaro Wild Dog Destruction Board in Cooma and the Forestry Commission, who also have vast tracts of natural bush in the region.

After a great deal of debate about trapping, poisoning and the various practical measures that were available for wild dog control, the one thing that did work was specifically purpose-designed electric fencing. I recall that in those days the parks service would make the electric fencing materials available free of charge to landowners to ensure that the wild dog numbers did not have access to adjacent parkland areas. The problem was clearly that the availability of pasture-improved fodder and water was causing populations of mainly wombats and wallabies to considerably expand and of course their predators expanded with them, which led to the inevitable clash with the assets of farmers in the area. I do remember well, both on the Khancoban side and the Byadbo area, that a cooperative program of electric fencing solved the problem. I was wondering, as I read the fresh outbreak of debate on the matter, whatever happened to that program.

Mr SCHULTZ—I pick up the point you made that it is a constitutional issue because the states constitutionally have control. But I would have thought that the most serious constitutional issue in this country today was to protect our unique native species. I suppose what I am getting to is what sort of contribution the Commonwealth makes to the states to assist them to carry out their rather questionable management roles in places like the Kosciuszko National Park. Do we give them huge amounts of money and assistance? If we make a contribution in that regard to the states to manage our species, why aren't we exerting some sort of significant pressure on them to make sure that they do just that?

The only good thing that has come out of this after the destruction of an enormous amount of native flora and fauna is that we have exposed the countryside to make it an easy killing field for feral animal reduction. We are doing nothing about it, and what we are going to see is the stupidity that is occurring in Victoria, where the parks people have put tracking devices on dogs and let them go back in in order to find out what their breeding habits are in the park. I find that absolutely unbelievable in a situation where not only have these huge bushfires destroyed property and people's lives but we are doing nothing about a golden opportunity to rid our native parks of feral animals. Quite frankly, I think the Commonwealth, through your organisation, should be putting some damn strong views about that to the National Parks and Wildlife Service of New South Wales as an example.

Mr Leaver—I can only repeat the constitutional reality. You say that wildlife is a constitutional issue but, alas, the building down the road is the ultimate judge of that and it is not mentioned in section 51, which allocates the powers to the Commonwealth. The only engagement we have with states is through World Heritage and we make significant amounts of funding available to those World Heritage areas that are in states for cooperative management and protection programs. That is where the Commonwealth's role ends. That is the way the Constitution was constructed, that natural resources, forests, soils and water are the constitutional responsibility of the states.

Mr SCHULTZ—The point I was getting to is that we should revisit the conditions of those contributions to protect those World Heritage sites. If the states do not live up to their obligations to really protect those World Heritage sites, which includes the native fauna, we should be doing something about cutting out the funding.

Mr Leaver—We are certainly engaged in World Heritage sites within the states; that is a very active engagement of our department.

Mr GAVAN O'CONNOR—I have a couple of questions. On page 14 of your submission, the second paragraph, you say that human induced fire regimes that are not based on a comprehensive scientific understanding of ecological systems can have a number of negative impacts. You go on to talk about some of those negative impacts. What is your view of the science in relation to this whole issue of biodiversity and fire regimes? It is a central issue that has been considered, and you were here, I understand, when the CSIRO were giving evidence.

Mr Leaver—I think the science is very well understood in terms of fire behaviour and the interaction of the factors that generate high intensity fire—essentially, the distribution of fuel, topography aspect, temperature, relative humidity, wind speed and so on. The nature of vegetational succession in these areas is well understood. One of the most serious fire management problems in the high country is the impenetrable wall of scrub that exists in places through country that the explorers reported as having galloped through. There is a dramatic change to vegetational structure. That wall of scrub provides an aerated, draped fuel—which, quite frankly, is a fire manager's nightmare—as opposed to the compacted fuel of an open woodland setting. That is all very well understood. What is also well understood, and we saw it in the last fire season, is that that wall of scrub provides an almost impenetrable wall to initial attack chasing lightning strikes. The science of the whole nature of the post-settlement vegetation structure in the high country and the problems that poses to fire suppression and fire management are very well understood.

The real problem, and it is also well understood, is that that scrub is regenerated by low intensity fire. So a broad area burning program over those areas of scrubland—and there are extensive tracts of scrubland—will simply worsen the problem. That is the dilemma for fire managers in these areas, as the natural, stable condition for that is in fact the open woodland that the early settlers reported galloping through. To get to that stage, you have to exclude fire to the level that the shrubs which are fire responsive—I heard that in the evidence you just heard—senesce and die without fire starting the cycle again. In my personal view, having been attached to the area for many years, that is a major tragedy for the alps, because those scrubs that were stimulated by the 1939 fires were very old, the grasslands were taking over the sites again, and I would have expected that within a decade it would have been dramatically reverting back to open woodlands. The clock has now clicked straight back to zero.

Mr GAVAN O’CONNOR—That is an interesting perspective. Probably I will not have the time here to pursue that but certainly that view would run contrary to some of the more popular perceptions that exist on that. Obviously the particular issue I am about to raise, smoke management, has not surfaced in the public hearings that I have been associated with. We do live in a time where Australia has international responsibilities in this regard—greenhouse gas abatement et cetera. Can you just briefly enlighten the committee as to how you view this whole area of smoke management? I have no idea of how you quantify the smoke that is generated from a high intensity fire in certain circumstances as opposed to a low intensity fire done on a mosaic burn over a period of time. Is there any science being done on this?

Mr Leaver—I will hand the science over to my colleague, but it is as much a cultural issue as a scientific issue. Low intensity prescribed burning is generally undertaken in autumn. Particularly around this country, that is the onset of the inversion layers. So, rather than smoke dispersing, it will sit under cold layers and linger for quite some time. My experience of severe fire seasons is that there is a greater community enthusiasm—indeed, often followed by inquiries—in that severe fire season. The community will tolerate broad area burning as a response to that bad season for a few years and then, as the memories fade, the objections to smoke shrouding the suburbs become an increasing social and political problem and the cycle starts again until the next fire season. My colleague will address the science of the smoke and the levels. I hope I have not dropped him in it.

Mr Noble—Our submission talks about some of the impacts of hazard reduction strategies, on urban air quality in particular. That was drawing from an inquiry funded by our department and undertaken by the Australian Academy of Technological Sciences and Engineering in 1997. That identifies some of the impacts of hazard reduction burning on urban air quality. That is the limit of the information that I have to hand.

CHAIR—I will continue on that point. The submission tends to suggest that when inputting greenhouse gases, for want of a better term, into the atmosphere, the much hotter wildfires have a greater impact than a cooler fire. Is that right?

Mr Leaver—No, I think over the long term it would be exactly the same. That cellulose is there whether it combusts in a high-density fire or is broken down by fungi, releasing products over long periods of time—either it is burnt or it breaks down. The net contribution to greenhouse-enhancing gases would be much the same. The difference would be spectacular visually, but the end result would be the same.

CHAIR—Going back to the EPBC Act, I think my colleague Mr Organ was trying to suggest that the Commonwealth could take some action against a land manager—whether it be a state, National Parks or whatever—if biodiversity were lost because of a fire hazard reduction burning regime. At the same time, how useful would the act be to a situation where it could be shown that poor land management of an area has resulted in a significant wildfire which absolutely destroyed a particular species? For example, there is some talk that the corroboree frog that everybody had spent so much time trying to protect west of Canberra got absolutely wiped out in the fires. Is there a role from the Commonwealth from that point of view?

Mr Leaver—The application of the act is that it creates an offence to take or propose an action that has a significant impact.

CHAIR—But could no action be the same?

Mr Leaver—I am but a humble forester; I think you would have to ask a lawyer.

CHAIR—In these sorts of situations, no action may prove to be a negligent act.

Mr Leaver—I have been in many courts of inquiry into bushfires which have tried to explore negligence by neglect, but the issue has not gone very far because of the complexity of the fire issues and what could be said to have ameliorated what happened on that day. The fact of whether it would have or not is often fiercely contested.

CHAIR—This inquiry might provide a bit more evidence towards those sorts of issues. Going back to Kosciuszko—a prominent part of that is in my electorate—you mentioned grazing being stopped to protect the catchment. Have you got a view now on what protection there is for the catchment, given the extensive burning? If the reason was to protect the catchment for the hydro scheme, we as a committee saw evidence of water not being allowed to go through the turbines because of the pollution in the storage areas as a result of runoff from the fires. So it would appear that the catchment has not been all that well protected as a result. We saw some areas not included in the national park at the time and still being grazed which acted as very good buffers to the fire—those were the areas that did not burn.

Mr Leaver—As did the grasslands within the park itself.

CHAIR—Not totally—at Happy Jacks some very significant burning took place across some of the grasslands.

Mr Leaver—It very much depended on the day. I was quite amazed to see in the infrared satellite photography produced every day during the fires—which, mercifully, I was not at—the very intense fires at the face of the Grey Mare during the day actually go out as it hit the alpine grasslands that were the subject of the soil conservation work that I referred to earlier. So it would appear that green, well-mulched, alpine grasslands and meadowlands were a very effective barrier to the fires.

CHAIR—I thought the inspections that we were shown were only those parts that were still carrying significant moisture.

Mr Leaver—Yes, I would agree with that.

CHAIR—But there were certainly other parts where it just went straight across.

Mr Leaver—It depended on the day. I noticed that the Long Plain area was an effective barrier to the fire. But on that day—and I am glad I was not on Farm Ridge—Happy Jacks was very quickly converted to carbon dioxide and water vapour.

CHAIR—Close to those areas are still some freehold lands which are still grazed as they used to be.

Mr Leaver—The Gungahlin area, behind Eucumbene Dam?

CHAIR—The Snowy Plains area, basically. That is not dissimilar to a lot of the other country that used to be grazed before the lockout. Those freehold areas are still grazed in the same sort of fashion; they are grazed for only short periods of time. Cattle is taken there and then moved back. Those areas were certainly nowhere near as affected. They actually acted as a fire stopper. Given that and the fact that the lockout is all to do with protection of catchment, surely some questions should be asked as to whether those sorts of processes have been the right ones.

Mr Leaver—Yes. I was not really commenting on the history. I was not offering the view of whether or not it was effective or whether it was taken for the right reasons. I am sure you would have heard a lot of evidence on this matter in Victoria, where it is a matter of furious debate. But, mercifully, I am not involved in that.

CHAIR—Once again, the evidence showed that those areas that were still being grazed for short periods survived. But the areas where they have recently—when I say ‘recently’, I mean in the last 10 or 20 years—stopped grazing burnt very intensely.

Thank you very much for your evidence today and for your submission. We appreciate it. That completes our public hearings.

Resolved (on motion by **Mr O’Connor**):

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

Committee adjourned at 12.02 p.m.