ENVIRONMENT AND NATURAL RESOURCES COMMITTEE

Inquiry into the impact of public land management practices on bushfires in Victoria

Bairnsdale — 31 July 2007

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Mr N. Barraclough, Gippsland Apiarists Association.

The CHAIR — Thank you very much, Mr Barraclough, for turning up today. You might have noted that the terms of reference have recently been amended to include the impact of bushfires and the June–July Gippsland floods as well, so you may have some comments on that issue as well. I also remind you that all evidence taken at the hearing is protected by parliamentary privilege under the Constitution Act 1975 and is further subject to the provisions of the Parliamentary Committees Act 2003. Any comments you make outside the hearing may not be afforded such a privilege. All evidence given today is being recorded. Witnesses will be provided with proof versions of the transcript in the next couple of weeks. We ask you to make your presentation and to take some questions from us later, if you are happy to do so. We appreciate your joining us today.

Mr BARRACLOUGH — Thank you, Chair. First, a question: today I am representing Gippsland Apiarists Association. I also put in a personal submission, and when I was advised of the hearing I was told the committee had received it but had not processed it, and I have not even had any written acknowledgement of it. Do I get a chance later to address that?

The CHAIR — I am happy for you to take the liberty of making some additional personal comments. You might just want to say 'This is not necessarily the views of the apiarists association' or 'These are the views of the association' so we can differentiate your collective submission and any other additional personal comments you want to make.

Mr INGRAM — We have your personal submission included in our pack as well.

Mr BARRACLOUGH — I have not had time to prepare properly for the Gippsland Apiarists Association submission, and I was wondering if there would be a later chance for me to speak to my own submission?

The CHAIR — An additional chance? Certainly, if you will be around tonight for the open forum that we will have.

Mr BARRACLOUGH — This 2003 fire has been absolutely devastating for the people. I would like to endorse most of the comments by the previous speakers in regard to particularly the East Gippsland wildfire task force in regard to the need for more protective burning. More burning to reduce the fuel load would have certainly reduce the devastation of those fires.

One comment I would like to make on the all-care, no-responsibility situation: some 30 years ago you may have received a phone call one night to tell you they were going to be burning the area where your bees were, and it was just impossible to get the bees out in time. Recently we have had extremely good liaison with the Department of Sustainability and Environment. They have given us a lot of forewarning of where they are going to do their burning. They have even consulted with us to see where the budding and so forth for future honey flows is. They have been prepared to work in with us and we are extremely appreciative of this. The bee-keeping industry has needed access to other areas, such as national parks, to cover the loss we have had, and we hope the committee will look into this.

The submission that I put in on behalf of the beekeepers tried to address the environmental effects of infrequent hot fires. In our submission I had one photograph of a heap of rocks that had come into one of the gullies, and there is nothing to indicate there has been anything like that in the sediments in the past thousands of years. We have to come to understand that the intensity of these fires is causing devastation that is unprecedented. The 1939 and even the 1851 and 1926 fires — these fires in European times, yes, they are to some degree in the same category, but prior to European times we were not looking at fires of that intensity. I have tried to get across in my submission on behalf of the beekeepers association some of the ecological effects of infrequent burning and tried to explain how the Australian bush is a complexity of ecosystems. In pre-European times large areas were for grassy understorey, and this was attributed to regular burning, and we believe rightly so, but it was not a simple situation of broad-scale burning right across the map.

From discussions I have had with Aboriginal elders, I have been told that they left strips unburnt along rivers and gullies and around waterholes and such to provide cover for the game. These areas were deliberately left unburnt and were protected by their regular burning. Imagine just a bare landscape — there is no cover for the kangaroos, there is no cover for the nesting water birds around the water holes, so you had areas that were subject to a totally different fire regime. Areas of high fertility were much better for producing the tuberous plants which they got most of the diet from.

These areas justified a lot more intensive management and were likely burnt a lot more regularly than the infertile areas, and it is the infertile areas that were less suitable for farming that is now our bushland. These less fertile areas were most likely burnt on the mosaic that people talk about, not as regularly as the fertile areas that were particularly suitable for tuberous plants, and in these areas you were looking really at a dynamic conflict between a shrubby understorey and a grassy understorey. The grassy understorey has evolved regularly, to burn regularly and not as hot because the regular burning really eliminates the scrub that needs a number of years to set seed and the shrubby understorey has evolved hot to eliminate the grass. Grass is favoured on more fertile soil and scrub is basically favoured on less fertile soil.

What few of us may realise is that we likely have had evolutionary processes where the grass has an evolutionary mechanism to raise the fertility of Australia's poor soils. I will give you an example of what is termed cell grazing, where farmers have small areas which they continually shift their stock around. The grass leaves grow up, the roots grow down. The stock is moved around. It eats the grass down and there is some die back of the roots, and that adds to the organic matter in the soil. When the Aborigines do their annual burning, the grass grows up, the fires go through, and it kills the grass leaves off and you have some death of roots and it increases the organic matter in the soil.

The scrub has evolved to burn extremely hot, and you can see plenty of instances through the fires of 2003 and the recent ones where the hot burning of the scrubby understorey has simply destroyed the carbon in the soil. It is the carbon that the grasses evolve to build up. I will take that one step further.

The native grasses appear to have evolved, one, to bind the soil after fire and, two, if you have a look at areas of native grasses following what should be a natural fire, not intense, the hillsides and such after the fire are left with basically a rough stubble that would encourage the penetration of rainwater. If you have a look at the hills after our recent fires, because of the build-up of scrub and debris and flammable material on the floor, they have been burnt to bare mineral earth and the water simply runs straight off and contributes to the massive flooding we have had.

John Brumby on ABC radio recently dismissed public land management as a cause for the recent floods, and he attributed much of it to the high rainfalls that we have had and quoted the rainfall figures from Mount Wellington as being the highest recorded in the last 100 years. Yes, they were the highest recorded in the last 100 years because, as I understand it, the recording station went up there in 1996 and there were no records for the previous 90-odd years. I sent a letter to the paper asking John Brumby to produce his rainfall figures and emailed a copy of it to him and got an email back from his secretary telling me to look on the bureau of metrology website. I was asking for rainfall figures and flood heights, so an analysis could be done of the effects of the fire on water run-off. I have only had time to get a few private figures from my brother at Licola: 1990, 150 millimetres, and in 2007, 135 millimetres. I would expect the 1971 floods in the Macalister may have been bigger than the 1990 ones.

At Primrose Gap in 1990, 148 millimetres; this time, 100 millimetres. Glencairn in 1990, an official bureau recording station: 135 millimetres in 1990; this time 121. The only flood heights I have been able to get are for 1971, peak flood of 120 000 megalitres per day going into Glenmaggie; this flood, 315 000 megalitres going into Glenmaggie — nearly three times as much.

Steve Bracks attributed the floods to climate change even though we have had less rain this time, but I am not a scientist so I cannot relate to it. While everybody is arguing about whether or not the land management contributed to the floods, when it is totally obvious that it did, what is not being considered is that we have all this extra water run off, which may be 1, 2, 3 or 4 times the capacity of Lake Glenmaggie. If that has all run off now, it did not run into the ground; so if it did not run into the ground, it is not going to run back out later. That is just a possible effect on the irrigation industry. Whenever I ask for government figures I get messed about. It is not good enough.

The loss of all that water going into the ground has a significant effect on the health of the forest; it has a significant effect on the growth of the timber, so it has a significant effect on the timber industry. This is just the water that did not run into the ground; it is not down there. When I try to get figures — I have been into Gippsland and Southern Rural Water in Maffra and asked for figures — I am told they are coming. But there is a need for an analysis of these figures, and if someone like me wishes to question them, I think we need to be provided with them.

The terms of reference refer to climate change. I am an open sceptic of the science of climate change. I put up $500 in the *Bairnsdale Advertiser* before the last state election for any politician who could show they knew what they were going along with with the CSIRO computer modelling, and I have still got my $500. I asked for all this

science to be provided in relation to climate change in my submission and I have had nothing, so is it reasonable for me to assume that there is no science in relation to climate change?

The CHAIR — With respect, I think there is a lot of other public information. It is not our job to be analysts on climate change; I think others provide that broader information. It is up to people to form their own view. I am no sceptic about it. I know some people are but I am no sceptic about it. Others show you different data, and if we can provide some other data around, it at least it gives you some evidentiary information that you can assess or disagree with.

Mr BARRACLOUGH — The CSIRO climate modelling on rainfall for the Murray–Darling Basin started from one of the wetter periods when records were kept, which I believe is explainable once you study the natural volcanic, solar and other cycles; it is explainable why that was a wetter period. It then takes you through one of the drier periods in the rainfall cycle just with a straight line continuing down. If you start from one of the wetter periods and then you work to one of the drier periods, and then you just extrapolate the graph it is obvious that the modelling is going to get drier. Tim Flannery put a map in his book showing the changes since 1950. It is similar to the map on the bureau of meteorology web site, and yes, it clearly shows there have been those changes in rainfall from 1950 through until now. If you go back to its first climate change maps, it shows it has got slightly wetter from then until now for most of south-east Australia. All we are seeing is a pathetic corruption of statistics. Can anyone here dispute what I am saying — that it is a pathetic corruption?

The CHAIR — With respect, it is not our job to do that. We have read your submission from the apiarists association, and yes, your other personal submission is in here, so it has been provided to us. I think you are probably talking more to the latter submission than to the apiarists submission at the moment. Is that right?

Mr BARRACLOUGH — I asked for the information in both submissions.

The CHAIR — Yes. It is not our job to be — —

Mrs FYFFE — Climate change experts.

The CHAIR — In effect, a library to provide information. Our job is to gather the information the public has, but we are happy to provide you with some information that we might have. There was some interesting stuff just recently at a conference in Parliament House, and maybe we will talk a bit later on about that, including how the insurance industry is factoring all this stuff in. It was quite interesting about the data used, and I am happy to talk to you about that later on and give you some of that. But it maybe worthwhile if we move on to questions. You mentioned some limitations around the apiarists' sites and the impact the fires have had, and your desire that there be some additional locations found. Obviously we have been speaking with apiarists out in the Grampians region as well, so we are interested in this subject area. Just to get a better understanding, how are apiarists sites determined? What is the involvement of the local apiary groups in finding suitable sites, and how are those sites managed? Could you brief us on that?

Mr BARRACLOUGH — National parks and state parks generally have a set number of apiary sites that are available. If a beekeeper has those and continues to pay for them, then he maintains occupation of those sites. Quite often the number of sites in a park is only 10 per cent, for example, of what could be available. There is normally much greater access to state forests. You pay a fee and then you put your bees in and no other beekeeper is allowed within 1.6 kilometres — I think it is — of your site. Sites are allocated in that manner. There are less areas available to beekeepers now than there were 30 years ago. That is through restrictions, but also the impact of the fires has been enormous. If we can, we have to look at opening up areas such as in national and state parks for far greater access for beekeepers, because it is not only about our income, but the pollination industry is really the backbone. Agriculture and horticulture would fall in a heap without bees.

Mrs FYFFE — I think I should almost declare a pecuniary interest, Chair, I have three beehives at home. You talk about the industry being damaged by the fires: can you give us an indication of the size of the industry before these recent fires, and what it is at this moment?

Mr BARRACLOUGH — I do not have those figures with me, sorry.

Mrs FYFFE — That is fine.

The CHAIR — Would you have them available, or can you get them?

Mrs FYFFE — Just roughly.

Mr BARRACLOUGH — Yes, I can get those figures.

Mr INGRAM — Is that in fact more about the production of pollen through blossoms because of the fire impact? Is that the major impact?

Mr BARRACLOUGH — The major impact has been the loss of our native forest resource.

Mrs FYFFE — Not the destruction of the hives themselves?

Mr BARRACLOUGH — There has been some loss of hives, and it has been significant particularly up in the Grampians. There were losses down here. In some instances there were losses of field bees, but the hive equipment was still intact. But as to the damage to the ecology — the beekeeping industry is dependent on healthy forests. My father started keeping bees up at Licola in the late 1930s and he shifted his hives once in about 20 years. Virtually every year he would go out and get quite good extracts. If you tried to leave bees up there year in and year out now, they would die of starvation because the health of the forests has deteriorated. I have tried to outline in my submission the effects on the water table of the forests being scrubbed over and carrying far more vegetation, which has had a significant effect on the water table. This has had a significant effect on the health of the trees. You just could not leave bees up there for 20 years like my father and others did back in those early days.

The CHAIR — If there is local data available on the economic impacts of what you are telling us — —

Mr BARRACLOUGH — Yes.

The CHAIR — What about the reduced honey production industry at the moment? If that data is available, could you pass it on to the committee.

Mr BARRACLOUGH — Yes.

Mr INGRAM — You mentioned the complex ecosystems, the different vegetation classes, grassy areas, riparian zones, and the different fire regimes. I am assuming that you would determine also that each of those EVCs would require different fire regimes to return them back to reasonably natural ecosystems? I suppose my question is: if we are to make recommendations, how do we recommend what is the proper natural fire regime for each of those EVCs?

Mr BARRACLOUGH — I cannot give you that information. I have studied it for about 30 years, and I believe I have a reasonable understanding of what we do not know. That is about all I can say. What we can say for certain is that there are vast areas out there that have suffered immensely because of infrequent hot fires. That is the first issue we have to address, and we have to get the forests back to a condition where the fires that do go through them are not intense. I would just like to add one comment further to what people have said about the need to understand that there may be some escapes in the control burning. Basically for much of the autumn and the spring there are times when you can go out to our forests, walk along a road and light it up with a drip torch in the afternoon and the fire will go out that evening; it will burn for 50 metres and then go out. There are other times, quite often during the same week, when if you light it up, it will be very hard to control. Bush experience will tell people the difference. All attempts to do fuel reduction burning that I am aware of are attempts to do it in one go. You either get a fire that burns in 50 metres from the road and goes out and leaves vast areas unburnt in the middle — if the forester goes and does a bit of cross-hatching on his map, it is included in the 50 000 hectares that were supposedly burnt that autumn — or you have conditions where the fire is too hot to be ecologically correct or too hot to control.

With bush experience we could have a network of roads out there, and you could have the DSE going out there in conditions where the fire is going to go out in the evening; they could just walk around the whole perimeter of a block with a drip torch one afternoon, and that evening it goes out. Two or four days later you can fly over it with your helicopters or planes and drop incendiaries and you have a 50-metre break around the whole block. We do not need fires to be getting away. That system was put together by David Packam, OAM, in Western Australia and it proved extremely successful and extremely cost effective. With the implementation of bush knowledge we could

have a similar system here and we could be returning our forests to a much better condition without the risk of fire escapes or with absolute minimal risk.

Mrs PETROVICH — Thank you for your extensive submission. It was very interesting, and some of the historical data on cattle grazing and various other things interested me very much. Part of your submission talks about the significant issue of single-age alpine ash forests and grassland management as opposed to scrubland management. Can you explain how better management would assist in the biodiversity of these forests and benefit apiarists in this area?

Mr BARRACLOUGH — In regard to managing for biodiversity, previously if you camped out in the bush you would be woken up before daylight by a massive chorus of birdsong. If you camp out in the bush now, like in the Macalister Valley or in areas that have been burnt out, it is often just silent. I was told that even a year after the 2003 fires much of the bush up through the Omeo country and other areas was silent. We are not protecting our biodiversity; we have been destroying our biodiversity with the hot fires that we have had. But these fires are an ecological catastrophe, just on unprecedented grounds. What we have seen is a world-scale ecological catastrophe.

To protect the biodiversity, we should go around the blocks with our drip torches one afternoon, the fires then go out in the evening, and as we could we would do our aerial incendiary lighting under conditions where it was just going to burn out patches inside that perimeter. When we restore it to a grassy understorey and fires in that forest are much more controllable, we can then look at replacing our riparian zones and so forth along the rivers. You can have someone walking along a creek bank with a drip torch and someone walking along 20 metres behind him with a knapsack, putting it out on the side of the riparian zone that you want to protect. There are records of the first explorers seeing Aborigines doing their protective burning and putting out the fires with the boughs of trees where they did not want it to burn in the areas they were protecting. We do not have their knowledge but we have different knowledge that will help us at least do a heck of a lot better than we are doing now.

The CHAIR — Thank you, Mr Barraclough. I just remind you that a copy of the transcript of your evidence in the hearing today will be sent to you in the next couple of weeks with some instructions about how to respond to that. Thank you very much, and we might see you again tonight, as I think you indicated.

Witness withdrew.