### REPORT ON PROCEEDINGS BEFORE

# PORTFOLIO COMMITTEE NO. 7 - PLANNING AND ENVIRONMENT

# INQUIRY INTO KOALA POPULATIONS AND HABITAT IN NEW SOUTH WALES

## **CORRECTED**

At Macquarie Room, Parliament House, Sydney, on Wednesday 26 February 2020

The Committee met at 9:00

#### **PRESENT**

Ms Cate Faehrmann (Chair)

The Hon. Mark Buttigieg
The Hon. Catherine Cusack
The Hon. Ben Franklin
The Hon. Shayne Mallard
The Hon. Mark Pearson (Deputy Chair)
The Hon. Penny Sharpe

**The CHAIR:** Welcome to the ninth hearing of the Portfolio Committee No.7 inquiry into koala populations and habitat in New South Wales. The inquiry is examining the current status of koala populations and their habitat, and focusing on the impacts and effectiveness of existing policies relating to land management reform, forestry and the environment. Before I commence, I would like to acknowledge the Gadigal people, who are the traditional custodians of this land. I would also like to pay respect to the Elders past and present of the Eora nation, and extend that respect to other Aboriginal people present. Today we will hear from Mr Dean Kearney, a representative of the Forestry Corporation of NSW.

Before we commence I will make some brief comments about the procedures for today's hearing. Today's hearing is open to the public and is being broadcast live via the Parliament's website. A transcript of today's hearing will be placed on the Committee's website when it becomes available. In accordance with broadcasting guidelines, while members of the media may film or record Committee members and witnesses, people in the public gallery should not be the primary focus of any filming or photography. I also remind media representatives that you must take responsibility for what you publish about the Committee's proceedings.

It is important to remember that parliamentary privilege does not apply to what witnesses may say outside of their evidence at this hearing. I urge witnesses to be careful about any comments you may make to the media or to others after you complete your evidence, as such comments would not be protected by parliamentary privilege if another person decided to take any action under defamation. The guidelines for the broadcast of proceedings are available from the secretariat. All witnesses have a right to procedural fairness according to the procedural fairness resolution adopted by the House in 2018. There may be some questions that a witness could only answer if they had more time or had certain documents to hand. In these circumstances, witnesses are advised that they can take a question on notice and provide an answer within 21 days. I remind everyone here today that Committee hearings are not intended to provide a forum for people to make adverse reflections about others under the protection of parliamentary privilege. I therefore request that witnesses focus on the issues raised by the inquiry terms of reference and avoid naming individuals unnecessarily.

Witnesses are advised that any messages should be delivered to Committee members through the Committee staff. To aid the audibility of the hearing, may I remind both Committee members and witnesses to speak into the microphones. The room is fitted with induction loops compatible with hearing aid systems that have telecoil receivers. In addition, several seats have been reserved near the loudspeakers for persons in the public gallery who have hearing difficulties. Audience members should be mindful that noises and interruptions make it difficult for witnesses to communicate with the Committee, and I request that audience members please refrain from talking for the duration of the hearing. I also note that photos and videos may not be taken whilst the hearing is underway except by authorised representatives of the media. If you would like a photograph of today's proceedings please approach the secretariat. Finally, I ask everybody to please turn their mobile phones off or to silent for the duration of the hearing.

**DEAN KEARNEY,** Senior Manager, Planning, Hardwood Forests Division, Forestry Corporation of NSW, on former oath

**The CHAIR:** Would you like to make a short opening statement for the Committee?

**Mr KEARNEY:** Yes, if that is okay. I have something prepared. Obviously I have made statements to the inquiry before but since that time we have obviously had a very significant fire season. It is worth acknowledging. I thought I would like to do that, to start with. During that time, I understand the Committee has sought to hear from Forestry Corporation, but it just has not been possible for us to release ourselves from those firefighting activities until now.

On behalf of the Forestry Corporation, my colleagues and I worked alongside the other agencies under the RFS to manage the fires as best we could. There were over 500 individuals from Forestry Corporation who were involved in the firefighting effort. There were 16,500 individual firefighting shifts done and over 260,000 hours of work, so it was a huge effort. I can attest on behalf of my colleagues that that does take its impact on families, and watching our forests burn is certainly something that has been quite an emotional experience for a lot of forestry people. In terms of the scope of the Committee, there has also been a significant impact on koalas and other threatened species. We are aware of that. The extent is not yet fully understood but it is something we are working with other government agencies on.

I can say that since the fires have started we have taken a number of steps in terms of scheduling our harvesting activities to reduce impact in the short term. We are working with other agencies on how we might move forward with harvesting in burnt areas and that is something we are working collaboratively across government on. Reflecting on our original submission, the picture that we put forward then was that the state of koalas in New South Wales was a quite complex and not yet fully understood picture. I think that some of the main points we made still remain pertinent, which is that we know that koalas are in decline in some areas. Certainly with the fires that has been exacerbated in areas. We do know that the risks to koalas in the landscape are not uniform but there are risks in various parts of the landscape. What we do not yet have—but I understand government is working towards it—is a systematic monitoring approach for koalas. That is something we desperately need at a time like now.

We do not know what our base population of koalas was or could be or should be. We do not know how many we have lost. We just do not know those numbers. Without a systematic monitoring approach, we do not yet have that picture. There is a lot of conjecture in this space and unfortunately we cannot add significantly to that. I would like to finally add that our organisation believes that the principles of sustainable forestry are still sound. Wood is the ultimate renewable product and we can grow it in abundance in our forests. We do believe that there is plenty of evidence—scientific and anecdotal—that forests that produce timber can also have an abundance of koalas. We urge the Committee to consider that and to consider any practical and effective measures for managing the ongoing threats to koalas in our landscape.

**The CHAIR:** You spoke of the recent fires and the impact of the fires on forests, which everybody is incredibly aware of and distressed about. How much timber has been estimated to have been lost from native forests as well as hardwood plantations and pine plantations in the recent fires?

**Mr KEARNEY:** I do not have a simple number of the quantity of timber at this stage. That is going to take some time to actually estimate. I can talk about the area that has been subject to fire. We are undertaking that analysis now. What we have across the landscape is—around about half of our hardwood forests have been subject to some form of fire. That is the coastal forests, I should say. So around about 600,000 or 700,000 hectares have been subject to some form of fire. We have satellite mapping that is looking at differentiating between those areas that were burnt severely and those areas that were burnt under less severe conditions, where the fire was more akin to a hazard reduction style burn.

At this stage I can say that probably around about 25 per cent of our forests have been burnt with a severe fire, in terms of the hardwood forests. In terms of softwood plantations I would have to take on notice the exact number, but the quantum is in the order of 50,000 to 60,000 hectares of softwood plantations and around about 3,000 to 5,000 hectares of hardwood plantations. Again, those numbers are not perfect because fires have passed through those areas, but in terms of what has actually been lost, it is not 100 per cent of those areas that have effectively been lost in terms of the timber value. Some species are expected to recover post-fire, even from a severe fire—some species of timber or commercial trees. Others will not, so we are just working our way through that now.

**The CHAIR:** What about public native forests?

**Mr KEARNEY:** The public native forests—the area burnt is about half, which is around about half of the coastal forests of the State, which is about 670,000 hectares in total of burnt forest. In terms of the severity, around about half of that again is what has been burnt severely.

**The CHAIR:** You spoke about the request or the need for salvage logging. Are you undertaking that salvage logging already?

**Mr KEARNEY:** No, not yet. At this stage—if I start on the South Coast—there has not been any timber harvesting since around November in Eden, Batemans Bay, the South Coast area or the Tumbarumba area. That has not happened yet. On the North Coast we resumed operations early in January. We have largely moved those operations into timber plantations to avoid harvesting broadly across the forest while we assess the level of damage. On the North Coast it is very variable in terms of the geography of where the fires occurred. The further north and further west you are the more coverage the fires had. In those areas something in the order of 60 per cent of the forests have been burnt. We are not harvesting in those areas at all at the moment.

Further south, where it is only 20 per cent to 30 per cent of the forests that have been burnt, we are harvesting in some areas at the moment. But, as I said, 70 per cent of our capacity for harvesting at the moment is in timber plantations while we work through a process with other government agencies about how to best reengage in harvesting in burnt areas.

**The CHAIR:** What does that process look like that you are working through with government, which you have talked about a couple of times now?

**Mr KEARNEY:** Effectively it is working out what additional protections should be put in place in the burnt environments. There are two main aspects that we are considering. The first is that if you have no ground cover because the ground cover has been removed by the fire, the soil and water are potentially more vulnerable. We are assessing what, if any, additional conditions are required there. The second thing is looking at whether there are any threatened species issues that for any reason have been exacerbated by the fires locally, regionally or across the State and whether they need to be taken into account for any particular harvesting site.

**The CHAIR:** Is the salvage logging that is being undertaken largely in hardwood plantations?

**Mr KEARNEY:** No, there is only really salvage harvesting happening in softwood plantations at the moment.

**The CHAIR:** Softwood plantations?

**Mr KEARNEY:** Yes. There is a very large area of softwood plantation, particularly around the Tumut area, that has been burnt and will die. Those logs need to be recovered very quickly, otherwise they are not going to be usable. That is happening at a pace and has been happening since immediately after the fires.

**The CHAIR:** How much of the salvage logging is being undertaken in softwood or pine plantations compared to hardwood plantations and public native forests?

Mr KEARNEY: There is nothing in public native forests at the moment in terms of salvage harvesting. It is certainly something that is worth discussing with the Committee just to get clear with what we mean when we talk about salvage harvesting. I have seen salvage harvesting images from Victoria and Tasmania where it is clear-felling in alpine ash and mountain ash coupes. That is not the sort of forestry we practice in New South Wales. Our legal framework and the Integrated Forestry Operations Approvals [IFOAs] do not allow for it. What we are talking about doing is selective harvesting only, and doing it with at least the conditions and the IFOAs that currently stand, with additional conditions put on top of that to deal with the exacerbated issues from the fires.

The other thing is that we will not be going in and taking every tree. That is not something we do. We will just be focusing on servicing the important markets for timber for things like poles, bridge timbers and other building products. We are not going to be going in and grabbing hundreds of thousands of tonnes of pulp wood or anything like that. That is not what we will be doing.

**The CHAIR:** That was going to be my next question in terms of what the timber is being used for. The timber from the softwood plantations is being used for things like poles—

**Mr KEARNEY:** No, sorry. All the wood from the softwood plantations will go to the existing wood processors. It is really important that as much of the wood that can harvested now before it goes bad or starts to degrade is put into the existing customer base so they can use it now and defray any potential losses. If you were cutting into green forest now and leaving the burnt stuff then the overall quantity of timber, particularly over time, would reduce. That is something we need to try to avoid because it is extremely important for those economies and those businesses to have that material available. My comments about what we have been harvesting were in

relation to native forests. We would only be undertaking selective harvesting. The duration of that will be very dependant on the recovery of the forest.

**The Hon. MARK PEARSON:** How do you measure that? If you are saying you are still going to go in and take selectively out of native forests while you are measuring the impact of the fire, how can you possibly balance that?

**Mr KEARNEY:** When I talk about the recovery I am talking about—I mentioned before that some species are affected differently than others.

**The Hon. MARK PEARSON:** But how do we know?

**Mr KEARNEY:** There are some principles. The fundamental biological principles of some tree species are different to others. For instance, alpine ash is extremely sensitive to fire, so we can expect that in areas of alpine ash that have carried fire through them, all the alpine ash trees will die. That is something that is going to happen. I have been to the forest in Tumbarumba myself just a couple of weeks ago. Around them other species of trees are reshooting and coppicing. You see the classical images in the media all the time of the leaves coming out of the bark. The canopies can recover and the trees will grow on. But not for species like alpine ash and, to some degree, silver top ash as well.

Further to that, there may well be stands of timber, particularly on the North Coast where it burnt hot, that can and usually do recover that may not in some areas. We will assess that as we go along. We will be assessing whether or not canopy health returns and whether the trees will recover. As I said, I largely expect that the species that grow on the North Coast will be recovering, but we will monitor that. We have a system of satellite imagery difference analysis that tells us first of all the severity of the impact of the fires and then also the recovery trajectory as well. Over time we can watch as those forests re-green.

**The CHAIR:** I am just wondering whether there has been any timber mill interests that have approached Forestry Corp either formally or informally since the fires to express an interest in reducing their involvement or exiting native forest logging entirely?

**Mr KEARNEY:** I am not aware of anything like that. I am not saying it has not happened, but I am not aware of anything like that. I would have to refer that to others. They may not have approached Forestry Corp; they may have approached government. I cannot speak on behalf of the saw millers either. I do not really know.

**The Hon. MARK PEARSON:** Is there any reason why this Parliament should not move a motion to have a moratorium on any logging of any timber that is not being salvaged because it is going to die or is on plantations?

Mr KEARNEY: As I said—

**The Hon. MARK PEARSON:** Considering all the things you just said—"We don't know this; we don't know the extend of that; we still have to measure this"—why would you not welcome a moratorium on harvesting any forest or timber that is not about to die or is not on plantation? We do not know where all these animals that have fled are seeking habitat, let alone the animals that already in that habitat.

**Mr KEARNEY:** The context is important. There are two bits of context. The first thing is that the fires are not uniform across the State and some districts are broadly unaffected. In the lower North Coast only about 20 per cent of the forests have been subjected to any kind of fire at all. To cease all operations in those areas—

The Hon. MARK PEARSON: But we have to look at this—

**The Hon. BEN FRANKLIN:** Point of order: I appreciate where the member is going with this, but the witness is in the middle of an answer. We should let him finish his answer and then the member can ask his next question.

The Hon. MARK PEARSON: I will, thank you.

**Mr KEARNEY:** Some districts are largely unaffected by fire. To manage timber supply wholly from burnt forest is not really, in any sense, practical for me to do. I guess the other thing is potentially to take jobs and timber supply out of those areas where the communities have already been affected by the fires would be something that does not seem to be a good idea from my point of view.

**The CHAIR:** Do we not have to look at this holistically? We are not talking about a pocket here, a pocket there and an area there. We are looking at New South Wales, if not Australia, and all of the catastrophic harm that has occurred. It may well mean that we must stop pulling those trees out until we know what the impact is. Do you not think that is a reasonable request? If the picture was clearly put to the people in those towns who are relying, in part, on the timber industry, I am sure they would cooperate, would they not?

Mr KEARNEY: I cannot pretend to speak on behalf of whole communities.

**The CHAIR:** Could you address my former question then?

**Mr KEARNEY:** The former question—again, it is really a policy matter. It is beyond the scope of what I do. My job is to implement the rules set, to deliver to the wood supply contracts that we have and to do that in the most professional way we possibly can. In terms of whether or not there should be some overarching policy direction that the Government should take in terms of wood supply, that is not really a matter for me to personally contemplate, to be honest.

**The CHAIR:** You mentioned the process being undertaken to assess what is happening with threatened species in State forests. Are you able to tell us more about? Is that being done by a formal committee or working group? How is it being coordinated?

**Mr KEARNEY:** It is, effectively, being coordinated by the EPA, the Environment Protection Authority, but the meetings I have been involved in have also had members from the Department of Primary Industries, the Environment, Energy and Science section, now called the EES—the threatened species people, the ecologists and whatnot. There is already a document that has been put out by the environment portfolio regarding threatened species status, so that is being used as well as all the other information we have about what the potential impacts would be.

**The CHAIR:** That document that has been put out, is that the Commonwealth document that was released a couple of weeks ago in relation to the 113 species or is it a different document?

Mr KEARNEY: My understanding is that it is a State Government document. I do not have it here.

**The CHAIR:** What is the role of the Forestry Corporation of NSW within that committee to assess the impact on threatened species habitat within your State forest estate? How are you doing that?

**Mr KEARNEY:** My team includes 14 ecologists. We have a range of information. We have data on fire severity mapping, we hold the data on the forest types. So we bring a lot of information, we bring a lot of expertise in terms of what the impacts might be. It is just a matter of putting forward options for where could we harvest, what areas have viable timber in them to be harvested. There are other things that we can bring to the table that others might not in terms of infrastructure damage that we are aware of in the landscape as well. Some areas cannot be accessed at the moment because of infrastructure damage.

**The CHAIR:** What is the time line for that process? So you are saying that no salvage logging is being undertaken in public native forests at the moment. As a result of the fires has the rate of logging increased in public native forests that have not been burnt?

**Mr KEARNEY:** No, it has not. What we have done is make a deliberate move on the North Coast, where there is some harvesting happening, to put our timber harvesting contractors into plantations in order to effectively buy us space to undertake these considerations.

**The CHAIR:** That is good to hear. Therefore, what is the time line for this process by Forestry Corporation of NSW—also being coordinated by the EPA—to assess the impact on threatened species? Has there been a time line placed on it?

**Mr KEARNEY:** No, there would not be anything like a formal time line. In terms of progress, there are already two areas that have been given what we call site-specific conditions. Effectively we have applied to the EPA under the Integrated Forestry Operations Approvals for site-specific conditions to harvest after a fire. There are two areas for which we have received those conditions. I believe they have been posted by the EPA on its website.

**The CHAIR:** Which areas are they?

**Mr KEARNEY:** They are both on the South Coast. One is in the Mogo State Forest and one is in the South Brooman State Forest. They are the first two that came through a process of consideration about where we could start, should we start, but we have not actually started any operations in those areas.

**The CHAIR:** Was a direction issued to move logging from public native forest to plantation forest until this assessment has been undertaken?

**Mr KEARNEY:** No, that was just a step that we took ourselves because we needed some time to work through a process of how best to manage timber supply for the remainder of the year. We just took that ourselves. There have been high-level agreements within departments about trying to come up with a process that allows us to maximise the amount of burnt area that is harvested, as opposed to unburnt areas that are harvested, in the coming 12 months. That is something we are working towards—under what conditions we could do that.

The CHAIR: The two areas that you are looking at going into are Mogo and—what was the other one?

**Mr KEARNEY:** South Brooman. It is just north of Batemans Bay.

**The CHAIR:** So South Brooman State Forest. Is that salvage logging proposed to be undertaken differently to what the current IFOA rules allow?

**Mr KEARNEY:** Yes, it will be different. Effectively the IFOA will still stand. There is a range of conditions. The documents that I think you should be able to access on the EPA's website outline the additional conditions that need to be put in place. I do not have all of them here but, for instance, the rate of tree retention for nectar trees has been increased. The rate of tree retention for hollow-bearing trees has been increased. There is mapping of unburnt forest that must be protected so that we are not going into those. Because the fires were not uniform some areas have been burnt intensely and others have not been burnt at all. Those that have not been burnt or that are only partially burnt are annexed from those operations. Both of those areas will really only have a few weeks of timber harvesting in those parts that were actually burnt, and there will be selective harvesting subject to increased tree retention rules.

**The CHAIR:** Thank you. We will go to Opposition questions now.

**The Hon. PENNY SHARPE:** I apologise if you covered some of this while I was out of the room. I want to get a sense of the percentage of State forests that have been burnt. I do not know if you covered that.

**Mr KEARNEY:** Yes, I did. I do not know if I did a very good job of it. The percentage burnt was generally 50 per cent. I actually have some statistics here that I can give you, though, because it is not an even 50 per cent as such: on the North Coast, the area burnt, 49 per cent; on the South Coast, 75 per cent; Eden, 60 per cent; and Tumut, 46 per cent. On balance that comes out at 50 per cent of overall area.

**The Hon. PENNY SHARPE:** It would great if you could provide that to us.

**Mr KEARNEY:** Absolutely. The other part to that is what has been burnt severely and what has been burnt under relatively mild conditions. That is, again, highly variable, particularly for the South Coast and Eden. A significant proportion of those fires were severe; less so on the North Coast.

**The Hon. PENNY SHARPE:** There has been a massive impact on wood supply. What sort of modelling or other work is Forestry Corporation of NSW doing in relation to the wood supply contracts?

**Mr KEARNEY:** We have a plan. It is going to take at least six months to produce results in terms of revisiting our long-term wood supply models. My team undertakes strategic wood supply modelling with a methodology called FRAMES. It is a 100-year wood supply model that says how much is the sustained yield for each of the supply zones. To redo all of that work with new measurements and new observations from all of the forests will take us around about six months.

**The Hon. PENNY SHARPE:** Do you think there is a significant risk that wood supply agreements will not be met?

**Mr KEARNEY:** Certainly in the current year we are going to have some serious issues in terms of our operational capacity. In terms of the long term, I think there will be impacts in some areas and no impacts in others. I gave quite a long answer before about the potential recovery of some species versus others. Where we have fire-sensitive species, I expect there will be a significant reduction in the availability of those species going forward.

**The Hon. PENNY SHARPE:** Your submission talks a lot about how under the new IFOA triple the number of koala trees are retained compared to previous operations. I know that your submission talks a little bit about that. Can you take us through how you get to that point? There has been a lot of controversy about the IFOAs, which I am sure you are aware of, and the assertion—leaving aside the fires—that triple the trees are available. Does that include some of the remapping and changes to areas that you will now have access to that you did not have prior to the changes and the new IFOA, if you understand what I am asking?

Mr KEARNEY: Yes.

**The Hon. PENNY SHARPE:** I really want you to unpack how there are more trees for koalas under the new IFOAs.

**Mr KEARNEY:** First of all, going to remapping, I understand that that is not going forward anymore. I am not 100 per cent certain but I certainly have not seen anything happening in that space for six months or so.

The Hon. PENNY SHARPE: That was what the Natural Resources Commission [NRC] was doing.

**Mr KEARNEY:** Old-growth remapping.

The Hon. PENNY SHARPE: Yes. You do not think that is proceeding?

**Mr KEARNEY:** I do not think it is proceeding. I could be mistaken. In terms of how we get more trees for koalas, I am not sure what details are important here, but basically what we are now doing under the Coastal IFOA is that we are using habitat models to determine what habitat quality and therefore feed trees are likely to be in an area. Then the IFOA mandates that you must keep those feed trees. What we had previously is that you had to comb through the forest floor looking for evidence of koalas. If you got a certain number of koala scats in those searches then that triggered a feed tree retention requirement. Not only have the numbers doubled but they are applied regardless of whether or not we find scats or where we find scats, which from my personal experience and the experience of my ecologists—in their opinion it is a far more robust way to deal with koala feed trees.

**The Hon. PENNY SHARPE:** One of the arguments we have had throughout this entire Committee inquiry has been that koalas are fickle beasts and they eat things that we have not necessarily previously recognised as being important feed trees. Do you believe this model picks that variance up?

**Mr KEARNEY:** Yes, I do. I have also seen dietary analysis from koalas where they eat casuarina, which is something that—and in quite large—

The Hon. PENNY SHARPE: Who knew!

**Mr KEARNEY:** Yes, that's right. But we largely know that they have strong preferences for a range of species, particularly red gums on the North Coast or tallowwoods on the North Coast. We do know they have strong dietary preferences and we can target those trees as the ones to be retained across that harvest area. That is not the only prescription that is in place, though, that increases the rate of feed trees for koalas. The other thing that we now have to do is that in each area we have to set aside what are called "tree retention clumps"—rather than just scattered trees throughout the harvest area, clumps of trees. It is 5 per cent of any given harvest area that goes into those. There is another 5 per cent that are what is called—

**The Hon. PENNY SHARPE:** How close do they have to be together?

**Mr KEARNEY:** There is quite a complex rule set about the distribution of them, but there is a rule set about where they can and cannot be in the landscape, how big they are allowed to be, how small they are allowed to be. I will probably take that on notice if you would like further detail.

**The Hon. PENNY SHARPE:** As I said, we get a lot of conflicting assertions around these issues, which is why I am very interested in you responding to them. We have had a lot of people say that that is actually useless, that essentially we are leaving this one tree where everything is cleared around it and that it is obviously disastrous for koalas because the minute they go on the ground it is a problem.

**Mr KEARNEY:** To take a further step backwards, I think it is still important that in any area that is going to be subject to harvesting, some 40 per cent of that area will be—on average, that is—some 40 per cent of that area will be set aside under riparian reserves, rainforest, old-growth, ridge and headwater habitat, various other mapped entities like threatened ecological communities, for instance. Those things are already set aside in the landscape. Then on top of that you have the tree retention clumps, wildlife habitat clumps—which is another 5 per cent of the landscape—and then retained trees scattered throughout the harvest area, as well as a requirement for basal area retention rates and hollow-bearing trees and various other things.

That all adds up to a landscape that has quite a lot of useful habitat for a koala. We have done contemporary research that shows that koalas are using those areas just as much as they are using area that has not been harvested. We are confident that what we have is a system that works.

**The Hon. PENNY SHARPE:** I wanted to take you to that research. Again, we have a lot of competing research in relation to koalas. There is a lot of work being done in the forest science centre in Department of Primary Industries [DPI] in relation to koala occupancy—again, your submission says that you think there are ten times more koalas that are in an area than perhaps has been previously estimated, using the sound and, as I understand it, listening to male koalas calling during breeding season. The difficulty this Committee has is that we have had a lot of evidence that that research is very problematic.

For us as the Committee to make recommendations to Government, I am just wondering how you reconcile—there is a whole body of evidence that says that the koalas are in decline pretty much everywhere across the State, but the research coming out of your area suggests that somehow there are far more of them than perhaps we thought. How do we reconcile that? How do we get to agreed facts on these issues?

**Mr KEARNEY:** It is a fair proposition, because if you are looking at all the media and all the—there is just a lot of opinion out there and some of it is quite generalised, I guess. What I would say is that—

**The Hon. PENNY SHARPE:** I have to say that most of the stuff that we have had has been pretty specific.

**Mr KEARNEY:** Okay. But to say that koalas are in decline everywhere across New South Wales is a generalisation and it is one that I think it is important to call out. The habitat model that was done by the DPI a couple of years ago—and there is an equivalent model that has been done by the environment department as well recently—they show that there is actually quite a vast area of koala habitat that is in the moderate to high quality class. It is 1.6 million hectares across northern New South Wales alone.

**The Hon. PENNY SHARPE:** Yes, but the research says that there are declining populations of koalas. Yes, the habitat is there, but the koalas are not.

Mr KEARNEY: My point is that largely that is in large areas of forest where, save for intensive wildfires, there are not really specific threats. When you look at populations that we know to be in decline—so around Iluka, around Lismore, around Port Macquarie, potentially—there are specific threats you can point to, whether it is developments, whether it is dog attacks, whether it is car strikes, or whether it be some combination of all those factors and wildfire. Those populations we can see and measure to be in decline. It does not mean that those threats are in all forests all the time. The habitat modelling, the song meter research that came after that, the call detection that confirmed that that habitat model was actually also largely occupied across large areas of forest: We understand that to paint a picture where there is actually a core of stable koala populations across large areas of northern New South Wales and probably across other areas.

A lot of those populations will be very low density. That is one of the things that is really difficult in terms of putting a number on koalas. One koala in 50 hectares would be a relatively high-density population. That is a hundred football fields of forest with one koala in it. It is not easy to study an animal in that sort of context. But the song meters allow us to collect a large amount of data over quite a long period of time. It is the best research technique I have seen into koalas. I understand that they are actually able to differentiate male and female calls now, for instance. It is going to get better and better. In terms of the efficiency and the efficacy of that technique, it is something that could be rolled out on a large scale, collect large amounts of data relatively quickly and efficiently and give us a picture pretty quickly of where koalas are and where they are not.

**The Hon. PENNY SHARPE:** What is going on in Government to reconcile the competing scientific—under the koala strategy there is work being done and then there is the work that you are doing. As I said, part of the challenge is for us to have agreed facts on whether they are declining or not. What actively happens within Government between Forestry Corporation and—it is not the Office of Environment and Heritage anymore, but whatever it is currently called? How are those issues being resolved? Are they being resolved, or do we just have parallel research happening and then it is fought out politically?

Mr KEARNEY: Being a State-owned corporation, it is slightly—

**The Hon. PENNY SHARPE:** It is a little bit different for you I know.

**Mr KEARNEY:** We are involved in some things but we tend to be involved more through the efforts of the DPI forest science unit. We have a relationship with them and they then have a relationship with Government.

**The Hon. PENNY SHARPE:** So essentially you are siloed away from the other environmental work happening within the structure of Government?

**Mr KEARNEY:** In some matters we are. I do not want to paint too much of a picture of that. We are heavily involved, for instance, with the NRC's forest monitoring program. That is a program that has struggled a little bit to get attention in the last few months while fires have been happening and we are well and truly aware of that. But that is probably the program that has the most promise in terms of being a whole of Government collective that will address the issues around where our threatened species are in the forests.

The Hon. PENNY SHARPE: The Committee understands that in terms of the plight of the koala, there are many different issues in relation to trying to save it. The fires have thrown a very large spanner into it from where we started. Essentially your submission—the Forestry Corporation's submission—says there are lots of threats to koalas, climate change, urbanisation, dogs, those kind of things. But your contention essentially is that harvesting operations have little to no impact on koalas. This is not an inquiry into forestry, it is an inquiry into how do we save this iconic species—leaving aside the fire issue. Is it the Forestry Corporation's position that nothing needs to change in terms of the way that you operate if our aim is to try and save the koala?

**Mr KEARNEY:** I am comfortable with what we do now. I am also comfortable that we have agreed that the conditions that we will put in place will be subject to change as evidence arises that says they need to change. When we went through the process we went through to come up with the IFOA, one of the key

components of that was monitoring and adaptive management. I am comfortable that if monitoring and adaptive management says that something needs to change then we should.

**The Hon. PENNY SHARPE:** Do you think that will happen as a result of the fires given that you have been so badly impacted? If you have got koalas living in State Forests as you say, which are subject to harvesting—we have lost 80 percent of the population potentially—you would hope within Government there is an assessment around that. Surely there is going to be an impact on the way that you have to do business as we try to recover?

Mr KEARNEY: There could be. I would just suggest that needs to be evidence-based. One thing I would say in terms of the considerations about forestry as compared with the other threats you labelled there, is that we are a sector that has had an enormous amount of attention. This issue has been upon us and with us for years, decades. So the conditions we have reflect that attitude and the people we have—and the work that we do—reflects the requirement to make sure that we take care of koalas and the landscape. If that needs to change, we will work through that process. But I am not certain that all forms of land management or all other issues around koalas have been addressed to the same degree that forestry has.

**The Hon. PENNY SHARPE:** Private native forestry being one of those, given it has quite different rules.

**Mr KEARNEY:** Possibly so. But I would say that what we do is, I think, sensible and sound. The evidence I see in terms of koala use and koala occupation of our forests suggests that it is. I am happy that we continue to monitor that and take a whole of landscape approach to the issue, particularly around koalas. We know where they are. We know where the threats are and what we are doing about that. We know what the population trends are. That is something I would be very comfortable for the Government to do.

**The Hon. MARK BUTTIGIEG:** Just following up from the Hon. Penny Sharpe's question when you said that there is habitat that the Forestry Corporation ensures remains in place in terms of parameters around feed trees, percentages and all that sort of thing. One of the problems with these things is that it is good to have a set of parameters in place and rules in place but how do we know that it actually happens in reality on the ground?

**Mr KEARNEY:** In implementing the conditions of the IFOA, we understood we had an issue with that sense of trust and transparency. We realised—going back four or five years now—that there is something we can do about it. We have teams of people dedicated to walking through the forest, doing habitat assessments, marking out the trees and areas that need to be protected. There is a whole team of people dedicated to that. The step we took five years ago was to make all of their work, not just in the forest with cans of paint or tape to mark areas, but to make that electronic. What they do now—they are called forest technicians and there are about 25 of them across the State for whom this is their full-time job—is they traverse the forests ahead of harvesting.

They record everything they find on an iPad so you can see where the trees are. We can pass that on to the timber harvesting contractors. We can make all that data publicly available. We put GPS in the harvesting machines so we can see exactly where they have and have not been. We can look at that to determine our compliance as an organisation with the rules, in terms of tree retention and the habitat provisions. We can also use it to look at the compliance of the contractors we engage as well and we can make that all publicly available. As I said, I was well and truly aware, with harvesting operations in remote areas and with people doing nothing but spraying spray paint, that we had an issue with how do you know that everything is happening all the time? I think we have bridged that gap with the technology that we employ now.

The Hon. MARK BUTTIGIEG: That check back mechanism, is that pre and post harvesting?

**Mr KEARNEY:** Yes it is. There is another team of people dedicated to doing compliance assessments on the ground as well and then further to that the NSW Environmental Protection Authority [EPA] does its compliance assessments. In terms of overall systems management, we are also exposed to routine auditing under the Australian Forestry Standard. That is where they come in and look at are our systems sound, is our approach sound, do our people understand what they are supposed to be doing?

**The Hon. BEN FRANKLIN:** I have one specific question and one general question. Firstly with regard to firefighting, you were talking about thousands of hours being spent firefighting and that the Forestry Corporation has been involved in fighting the fires over the summer. Can you put some meat on those bones and tell us what the Forestry Corporation actually does with regard to the firefighting? What specifically have you been doing?

**Mr KEARNEY:** Under the act, we are a fire authority. So we have both duties and obligations to extinguish fires on our estate and also then to become part of the incident management teams formed to deal with wildfires. The Forestry Corporation does not go out there and do its own thing when it comes to large-scale wildfires, it works in concert with all the other agencies—the firefighting agencies and emergency response

agencies. The Forestry Corporation works under the direction of the RFS. So we have people that attend and work as part of incident management teams. They can be in roles from logistics—organising meals, accommodation and all that sort of thing—or they can be planning where containment lines are going to be. That is a role that I undertook at one stage during the Long Gully Road fire this year. We also have people that do all the way up to Deputy Incident Controller. So we undertake a range of roles.

Depending on what qualifications people have, they can be put into an incident management team. We also deploy strike teams to the fire. So that is groups of people with firefighting appliances and they come in under what is called an Incident Action Plan to manage fires. This year we were involved in all sorts of important strategic firefighting, particularly around Coffs Harbour, Wauchope and Batemans Bay. We were also involved in property protection and emergency evacuation to a greater extent than we have ever been involved before. These were things that really pushed the envelope in terms of our experience in terms of firefighting.

**The Hon. BEN FRANKLIN:** That is great. That is obviously extremely important and much appreciated, no doubt, by all residents, Government and Parliament. But in terms of animals—and koalas—in terms of their interface with the fires, are there any specific protocols or logistical arrangements that you would like to—

Mr KEARNEY: Sure, there is a range of things that we did do and thank you for reminding me because it is not something that there is a lot of structure around in incident management teams about what to do about wildlife. It is something where incident management teams were responding as best they could. Back in September, I think, when the Long Gully and Busbys Flat complex and the northern districts just south of Casino went through a lot of fires, and we realised there were koala populations that had likely been impacted, we put watering stations out and we worked with a wildlife care group to try to get them some level of access to the fireground.

**The Hon. PENNY SHARPE:** Where was that?

**Mr KEARNEY:** Around Rappville. It was not particularly successful initially because the danger of being in the area was pretty overwhelming.

**The Hon. PENNY SHARPE:** We understand that. I am just very interested because we have heard different things.

**Mr KEARNEY:** Yes. We put out—I think it was six watering stations, which was probably the first kind of initiative around dealing with koalas while the fires were on. The Lismore koala care group came to the incident management team and got a guided tour around the forest, but then decided that it was a little bit too dangerous or hazardous to be in the actual fireground itself, for two reasons. One reason was that there were trees falling everywhere, which I can attest to. I went onto that fireground myself and it was a particularly dangerous place to be. The other thing is that the fire was still very active and you only have to look at what happened in the months after that with fires exploding and it would not have been a safe place to be.

That was initially back in September, perhaps October. Since that time in and around Port Macquarie—we have an existing relationship with the Port Macquarie Koala Hospital and we provided them with lots of what it calls "koala furniture"—branches and limbs cut from trees, at least for putting into the koala hospital. We produce a lots of leaves for feed and we helped guide people through—the koala rescuers. That was all part of the incident management response and Forestry Corporation personnel were involved in that sort of work.

**The Hon. BEN FRANKLIN:** That is great. I know my colleagues have a number of specific questions but can I just cut to the big chase on what you said: In your view, is there anything that you would like to put on record on how we can help koala populations in New South Wales thrive more? What can we do from your perspective?

Mr KEARNEY: The first thing is the monitoring piece so that we know what we have, where they are, where they are not and what the population trends are—information is key. In terms of tangible outcomes, there are other things that I think we could easily start moving on, as well. Where you have a threat analysis around a particular road, then let's do some fencing on that road; where you have degraded landscapes where koalas are in marginalised, fragmented habitats, are there things we can actively do in terms of tree planting in those areas? I can talk about—we raise seedlings for koalas each year. Last year I think we gave away 25,000 tree seedlings. We have a nursery capacity for five million trees. This year we are growing 50,000 trees to be planted for koalas across—they will just be donated via the Port Macquarie Koala Hospital and other friends of koalas.

**The Hon. PENNY SHARPE:** Your nursery obviously survived the fires, then?

Mr KEARNEY: Absolutely. It looked close at one point, but, yes. We have that capacity and that is something that can be done. There are numerous points where you can point to a really great result with trees

being planted and koala habitat being raised quite quickly. It can actually be done. Where there are opportunities to do things about those fragmented populations that are under threat, that is something that can be done. Just land use planning, generally—the rules around land use planning and what the impacts might be on koalas. There are things that can be done quite swiftly in that space.

**The Hon. BEN FRANKLIN:** You raised some specific issues about when you see problems that need to be addressed, whether it is fencing or whether it is some more trees in a particular area—feed trees that need to be planted. Does Forestry Corporation take an active position in advising government, "Here are some issues that we think need to be resolved"?

**Mr KEARNEY:** In terms of?

The Hon. BEN FRANKLIN: Those sorts of specifics.

Mr KEARNEY: No, we do not really do that.

**The Hon. BEN FRANKLIN:** Is that something you think it could do?

Mr KEARNEY: We have the capacity to do it; we have that kind of expertise. We have land management expertise, we have tree growing expertise—in any given year we plant four million pine seedlings and a million hardwood seedlings. It is something that we can do and that we know how to do—we know how to grow trees and we know how to manage forests. The overarching thing that I should not overlook, of course, is that anything we can do to improve the outcomes in terms of fires—there are lots of things that could be done in terms of trail maintenance, road maintenance, hazard reduction burning. I can only encourage that with the impact we have just had and the season we have just had that that is a particular area of focus.

**The Hon. CATHERINE CUSACK:** In relation to the incident management teams, is it accurate to say that if you wanted to do a back-burning operation as the fire was approaching, that you would not all just jump in your trucks and go and do the back-burning—that there would be some oversight of that?

**Mr KEARNEY:** Absolutely, yes. Back-burning operations, particularly in the season that has just happened, are something that has to be approved by the incident controller and potentially even higher up through to State operations.

The Hon. CATHERINE CUSACK: Who is the incident controller under that arrangement?

Mr KEARNEY: The incident controller is always someone from the RFS.

The Hon. CATHERINE CUSACK: Right.

**Mr KEARNEY:** They have rotational rosters of incident controllers and it is not just anybody, it is somebody who has very deep experience and qualifications.

**The Hon. CATHERINE CUSACK:** So any back-burns that were undertaken, particularly on the North Coast—but anywhere—would have the approval of the RFS?

Mr KEARNEY: Yes, absolutely. It would have led that and approved the incident action plan.

The Hon. CATHERINE CUSACK: Were there back-burns that got out of control in the recent fires?

**Mr KEARNEY:** Yes, there absolutely would have been, for sure.

**The Hon. CATHERINE CUSACK:** I understand that people were doing their best—I am not criticising that.

**Mr KEARNEY:** Yes, absolutely. Generally speaking, when you undertake a back-burning operation, you do so because it is a strategic way of trying to contain a fire to the smallest area possible.

The Hon. CATHERINE CUSACK: Correct, yes.

**Mr KEARNEY:** Sometimes the incident management team will know that it might not work but it is the opportunity it has to stop the fire getting 10 times bigger than what it otherwise would. We put people in there to undertake burning operations to try to cut a fire off and sometimes it does not work and we have to fall back to the next line. And whenever we are doing one back-burning operation we are doing fallback preparation as well. So, yes, it is not something that just happens on the spur of the moment and you would be in a lot of trouble if you did that—and you should be.

**The Hon. CATHERINE CUSACK:** You referred to—and we have also heard this in Port Macquarie—that you have a great relationship with the Koala Hospital. Is it fair to say that there are other parts of the State where your relationship with conservationists is more difficult?

**Mr KEARNEY:** Absolutely, yes. It is certainly one thing I am well and truly aware of—that not everybody in the community supports what we do and there is a lot of angst about what we do. In terms of the relationship with the Port Macquarie Koala Hospital, I am not part of that personally, but I understand that has grown organically through our provision of the seedlings and through our co-sponsoring of research. It is just something that happens. We are looking at a co-locating of premises on forest for it in the future.

The Hon. CATHERINE CUSACK: Really? Can you just explain that?

**Mr KEARNEY:** I am not across the detail, I am just aware that there is an agreement. That it is looking for additional land for its operations and we obviously have two million hectares to share.

The Hon. CATHERINE CUSACK: In addition, we were advised that it has certification accreditation.

**Mr KEARNEY:** Yes, it went through basic bushfire training—we offered that to a range of wildlife care groups through the fire season so that we could have that high level of confidence that if people felt like going to the fire line, they could do so safely.

**The Hon. CATHERINE CUSACK:** Is that just something that was done locally there or is it on offer across the State?

**Mr KEARNEY:** It started locally and I believe that once we were dealing with the fires on the scale we were, we realised it was something that could be rolled out elsewhere. But is not a systematic thing yet.

The Hon. CATHERINE CUSACK: But it is something that maybe forestry would look at doing?

**Mr KEARNEY:** I think it is something we would definitely want to continue to rollout. Obviously, the public interest in wildlife management around fires was enormous this year and I think it is something we will have to do work out how to facilitate.

**The Hon. CATHERINE CUSACK:** Yes. In relation to the Mount Kosciusko fires, a wildlife carer, who was also member of the Rural Fire Service, talked about how he was able to go in with a team. Is that up to the incident controller to make that decision?

Mr KEARNEY: Yes, it would be.

**The Hon. CATHERINE CUSACK:** And they would consult Forestry? I am trying to understand the process because it just seems—

**Mr KEARNEY:** There is not a role within an incident management team that is a wildlife response unit. Incident management teams have all sorts of roles in them. They even have livestock units and they have all sorts of people there to manage issues that are peripheral to just the firefighting as well, but there is not actually a wildlife role there. It is something that comes through typically—the experience I had was that it came through the public liaison officer and then through the incident controller. There was just the matter of working out what could be done.

**The Hon. CATHERINE CUSACK:** Do you think there some opportunity to have guidelines? I do not want to make more red tape for people but equally it does seem locally driven to me.

**Mr KEARNEY:** Yes, it potentially could have guidelines. Honestly, it is a question I would refer to the RFS. They would definitely know more than I about how they think in that space. It is certainly something that I can acknowledge: With the level of public interest this year in wildlife matters during the fires, that is something that we obviously need to make sure we have got good structures around, because the risk to individuals who are just trying to go and do good things is really high.

**The Hon. CATHERINE CUSACK:** I lived on the far North Coast and the forestry-conservation relationship seems fairly acrimonious to me compared with what I encountered down in Port Macquarie. Are there conservation groups that you are working successfully with on the far North Coast? It just seems like World War III up there.

**Mr KEARNEY:** I can think of a number that are not working.

The Hon. SHAYNE MALLARD: You can take it on notice.

**The Hon. CATHERINE CUSACK:** In terms of actual mills and operations, often they are located—were any of those burnt or lost during the fires?

**Mr KEARNEY:** There was a number of timber processing facilities that were impacted. Probably the worst of them was Rappville sawmill. That is a sawmill that only processes softwood plantation material from that area. I understand that is not operational but that is only my understanding. Maybe there are others who know

more about the status there. The woodchip processing facility in Eden also was heavily impacted by the fire. I do not want to say that is a comprehensive list; there may be others that I am not aware of. There certainly are some.

**The Hon. CATHERINE CUSACK:** Do you have any role in relation to private forestry?

**Mr KEARNEY:** I have no formal role. The only interaction that I have with it is that from time to time we will facilitate harvesting on private land where we are asked to do so by a landholder. We come to an agreement on the terms for us to do that. From time to time there may be an area of forest that we are harvesting where a neighbour adjacent would like to do harvesting on their forest. They will seek a property vegetation plan as an individual or as the landholder and we will facilitate the harvesting under an agreement.

**The Hon. CATHERINE CUSACK:** How does oversight for private forestry compare with oversight for your forestry?

**Mr KEARNEY:** I cannot imagine they have the level of sophistication that we do in terms of our ability to have systems—the mapping systems, the iPads and all that sort of stuff. It just would not be that most private operators will have access to those kinds of technologies.

**The Hon. CATHERINE CUSACK:** And certainly not the transparency.

Mr KEARNEY: No, I doubt it. It is a very different context.

**The Hon. CATHERINE CUSACK:** When you are mapping and planning these operations, is there any cognisance taken of private forestry approvals for logging in the landscape in which you are doing your work?

**Mr KEARNEY:** Only insofar, as I said, if from almost a happenstance point of view it is identified that either we can provide a service to the neighbouring landholder or they may wish to have access through our forest. But there is no—

The Hon. CATHERINE CUSACK: Mapping.

**Mr KEARNEY:** —oversight or anything about how much activity there is in private native forestry versus how much activity there is on our forest. I actually do not have any information on where active harvesting operations are private. We just do not have the information.

**The Hon. SHAYNE MALLARD:** Thank you for coming in today and for sharing your knowledge and experience for us. I want to ask you some questions around the products that the forestry industry supplies, particularly the State forests. Our colleague here asked about a moratorium on logging. It comes to mind to me from being in many of the briefings during the fires that we were very concerned around the shortage of power poles in the Blue Mountains, where I live. Hundreds were destroyed; down the South Coast there must be many thousands. That is a good example of the products you supply.

**Mr KEARNEY:** Yes, absolutely. In terms of power poles, it was something that we were aware of as soon as that happened. We had requests from the processors and suppliers of power poles to increase our supplies as quickly as possible and as fast as possible once the fires had started. Part of our thinking around going into hardwood plantations post the fires on the North Coast is that that would increase the yield of poles. We are doing everything we can to focus our harvesting in those areas. We have had a significantly increased yield. I do not have the numbers to hand but it is a significantly increased yield of poles in the past few months. We have been providing that. I understand that the pole processors are running out of stock still and they are asking for more and more. The situation, as I understand with pole processors, is that they were fully occupied in pole replacement programs with the stock that we could get them prior to the fires.

The Hon. SHAYNE MALLARD: Before the fires.

**Mr KEARNEY:** Where they are now is in a real demand deficit. We are doing what we can to deal with that.

**The Hon. SHAYNE MALLARD:** Are State forests primarily the sole supplier of power poles to New South Wales?

**Mr KEARNEY:** They are not the sole suppliers but very, very close to it. Particularly on the North Coast, the species that grow there are suitable for use as power poles. Most of the power poles in Australia come from the forests on the North Coast in New South Wales or up into Queensland as well.

**The Hon. SHAYNE MALLARD:** Is there a viable alternative to power poles if we were to have a moratorium on logging?

**Mr KEARNEY:** You can use concrete and steel, potentially. I do not know what is the capacity to do it is but certainly in terms of a preferred product that has insulating capacity, that is actually carbon positive in itself, it is the preferred product.

The Hon. MARK PEARSON: On that, what you mean by carbon positive if it is timber?

**Mr KEARNEY:** In terms of forestry as a land use, it is a carbon positive land use. I can point to a couple of pieces of research that talk about that, particularly when you take into account what is called the substitution effect. If you were to use concrete or steel, the carbon footprint of that pole would be much, much higher, whereas we can regrow a tree, we can lock the carbon up, store it and then re-store more carbon. That is not just an opinion. The Intergovernmental Panel on Climate Change reports are clear on the carbon positive nature of sustainable forestry.

**The Hon. MARK PEARSON:** To your knowledge, is it the case that the Forestry Corporation has paid a total of \$119 million in dividends to the New South Wales Government in the past 10 years, but over the same period the New South Wales Government paid the Forestry Corporation a total of \$136 million in grants?

**Mr KEARNEY:** I cannot confirm. I just do not know.

The Hon. MARK PEARSON: Will you take it on notice?

Mr KEARNEY: Yes, I have to take that on notice.

**The Hon. MARK PEARSON:** The question that flows on from that is that if your industry is saying that it is flourishing industry and that it is benefiting our economy and jobs, and supporting rural communities, when you look at that figure, actually is it not the case that the forestry industry is actually taking from the people of New South Wales, not contributing economically?

**Mr KEARNEY:** All I can point to, I guess, is that our softwood business is strongly profitable. Our hardwood business is marginally profitable at the moment and has been for the past five years. The community service grants we receive for doing works on roads, bridges and fence lines, where that is directly benefiting community. In terms of the profitability of the hardwood side of the business, our profitability as an organisation is neither here nor there in terms of what we contribute as an industry to economic activity. So our balance sheet is neutral in terms of hardwoods but that simply means that we neither profiteering nor wasting government money.

**The CHAIR:** Your public native forest logging operations are not profitable, though. Is that correct?

**Mr KEARNEY:** No, the hardwood division, which runs on the native forest harvesting operations, has been net positive for the past five financial years.

The CHAIR: Is that including hardwood plantations?

**Mr KEARNEY:** It is, but hardwood plantations are only a small part of that overall picture. I will have to take on notice the actual quantities involved there but in general, hardwood plantations are roundabout 20 per cent of the supply, at most.

**The CHAIR:** Without government subsidies and the hardwood plantation, the question is whether public native forest operations are profitable.

**Mr KEARNEY:** I believe it is true to say that they are profitable. They are not strongly profitable; we are not trying to profiteer from this as an organisation. We break even or go better; we have been for the last five financial years. As I said, the grants we receive from government are for doing public works on the land; it is not associated with timber harvesting. So there is no subsidisation of timber harvesting.

**The CHAIR:** You mentioned before that down the South Coast I think 75 per cent of the forests down there have been burnt and that you are looking at wanting to go in and do some salvage logging in forests down there. I think you mentioned some of the conditions such as retaining some hollow-bearing trees, for example. Does that mean that there is potential still for Forestry to go into some of those forests for salvage logging and log hollow-bearing trees?

**Mr KEARNEY:** No, the condition that we received, if I recall correctly, is all hollow-bearing trees must be retained. The typical situation in a regrowth forest like the ones in the Mogo and the south Merimbula area would be that there would not be a high density of hollow-bearing trees naturally; the regrowth forests have been subject to disturbance for a long time. But where there are hollow-bearing trees we will retain those.

**The CHAIR:** You also mentioned earlier about some species of either pine or eucalyptus being fire sensitive and that you may have lost their species entirely. What species were you referring to?

**Mr KEARNEY:** The Alpine ash or delegatensis. It is highly susceptible to dying after fires. So areas that have had any kind of hot fire in them in those species we expect those stands of timber to die. We expect them to regenerate and to regenerate prolifically—that is one thing they do. It is their genetic adaption to the fire landscape; they throw thousands of seeds per hectare out at the time of fire and they die as a mature plant. But those are the areas where, as I said, I would particularly like to focus our recovery of timber after the fires.

**The CHAIR:** We had a witness the other day from the Australian Workers Union talk about the mortality rate of koalas in forests that have been logged. I wondered if you could just shed some light on what your understanding is. Do you think that, in your experience, logging has killed more than one koala over the past 30 years?

Mr KEARNEY: That is not something that I could easily put a number on. I am aware of an incident last year where a koala died in one of our harvesting operations, or died after. The circumstances there are worth talking about so it is understood. The harvesting crew was in a timber plantation. They found a koala on the ground; it seemed okay, it did not have any external injuries. They took it to the Port Macquarie Koala Hospital and it died subsequently. The autopsy revealed it had internal injuries, it also had a broken leg that had partially healed, so it obviously had been injured beforehand. We do not know the circumstances, how it ended up where it did. It could well have been in the harvesting area and had been hit by debris or had fallen out of a tree—we are not certain.

I am satisfied at least that what was done there in terms of the response once that was found was sound and responsible. I am not aware of other instances of that nature occurring. I am aware of our people finding koalas that have died in the forest, but not in the post harvest environment, so pre-harvest. It is not something that happens regularly.

**The Hon. SHAYNE MALLARD:** That would be all documented, any koalas that were found in the forest? Would that be fully documented, such findings of koalas?

**Mr KEARNEY:** Yes. I can provide the Committee, if need be, with an incident report from that particular one where that koala was found.

**The Hon. CATHERINE CUSACK:** Is it fair to say some species of trees will now be under pressure at a local level in different parts of the State?

**Mr KEARNEY:** Yes. If you had asked me that question a couple of months ago in particular I was particularly concerned about the fact that we had had such a long, dry drought heading into the fire season and that it just continued to remain dry for so long that in terms of our ability to maintain forest cover I was getting concerned. Having said that, with the rain we have just had we are starting to see that the forests are responding—the resilience is actually there. As a forester working the forests for 20 years, I was really concerned to see just how much impact there was, but I can say that those concerns have been allayed somewhat by the fact that we have had rain and I am seeing the recovery of our forest.

**The Hon. CATHERINE CUSACK:** How much of the State's public forest is drought affected at the moment?

**Mr KEARNEY:** Right not, I am not certain—probably just ones in the western districts now. I would say the coastal stuff would be well and truly non-drought affected now that we have had such rains that we have had. In fact, in the north we have a number of forests that are now under water.

**The Hon. CATHERINE CUSACK:** The watering stations that you referred to, where do you get those from?

**Mr KEARNEY:** The first ones we got literally came from a hardware store. They were just a chicken feeder that was adapted to do the job, because that was all we could get our hands on at the time. Having said that, there is what they call blinky drinkers, which you can put up in a tree and they are a sort of custom-made thing. But they are not something you can go and wander down to Bunnings and buy.

The Hon. CATHERINE CUSACK: Blinky drinkers?

Mr KEARNEY: Yes.

The Hon. CATHERINE CUSACK: And you make those?

**Mr KEARNEY:** We do not make them but we do source them from people who custom-make them.

**The Hon. BEN FRANKLIN:** Putting them up a tree would surely be better than having stations on the ground.

**Mr KEARNEY:** Absolutely, yes. And when we put the stations on the ground through the Braemar Forest and Royal Camp Forest we knew it was sub-optimal but it was all we could do.

**The Hon. BEN FRANKLIN:** I understand. There was not a criticism; it was just that I think these blinkies would be great.

Mr KEARNEY: Yes.

**The Hon. CATHERINE CUSACK:** In relation to the salvage logging, what happens to that resource?

**Mr KEARNEY:** Any timber we recover from burnt areas will go to exactly the same people that would have bought it beforehand. It will be substituted wherever possible for green logs. It is simply just trying to continue industry as best we can with the resource we have and trying to utilise that burnt timber before it degrades.

**The Hon. CATHERINE CUSACK:** In relation to calls for moratoriums on native forest, why can we not just rely on the plantation forests? Can you give us a response to that?

**Mr KEARNEY:** First of all, there is a large softwood plantation sector in New South Wales; it does not produce the same products that hardwood forests produce. So when you see statistics that they produce 80 per cent of the timber in New South Wales, they may well, but it is all framing timber—it has that particular purpose and that particular output and cannot be substituted into the kind of uses that we have for hardwood, which has its own unique properties, and it has processing facilities that only process those logs. So you cannot simply say we will just use softwood to fulfil our hardwood targets.

In terms of hardwood plantations, we have around about 38,000 to 40,000 hectares of hardwood plantations; the majority of those are still younger, so their age classes would be heavily skewed around about the 20 to 25 year mark. They will not be mature until they get to around the 35 to 40 year mark. So we have some older age class plantations that we are harvesting now and we are actually harvesting them preferentially right now and at a rate that is not sustainable. I am doing that because I am trying to buy time to sort out how to move forward with the burnt forest. We do not have enough hardwood plantations to fulfil more than typically 20 per cent of our timber supply in any given year.

**The Hon. CATHERINE CUSACK:** Could you briefly say what are those timber products that cannot be substituted by softwood?

**Mr KEARNEY:** Anything that requires high durability. We provide a range of products that end up in specialist sort of areas—such as, we have talked about poles, but there are also marine piles; there are bridging timbers that just cannot be gotten anywhere else. All the external uses like decking and flooring and various other utility pieces that are used on the outside of a house that need to weather and be durable. Those are the particular products that have come out of our forests.

**The CHAIR:** I want to get a sense of the restoration work, if any is being undertaken, by State forests or anything that is being planned. I also have a question around whether there is any focus on some of the plantations, like the pine plantations, potentially being replanted for some of the lost forests, such as rainforests. Has there been any discussion like that in terms of an overall assessment of what has been lost and whether any of the State forests lands can be used to restore and rehabilitate some of the other ecosystems that have been lost?

**Mr KEARNEY:** We are doing planning right now, but the kind of planning that is happening at the moment is along the lines of, "What are the losses in terms of softwood plantations and hardwood plantations?" and trying to work out how to set up a planting program that will re-establish those as quickly as possible and as efficiently as possible. We are also undertaking—and this is a program that is going to take some time and some assessments of, do we need any supplementary treatments on native forests that have been burned and should we need to broadcast seed or to do enrichment planting. We have looked at all of our seed collection and nursery processes to work out what our capacity is there. We are starting to look at what areas may need those treatments. In terms of the proposition about restoring rainforests, there is nothing active in that particular area at the moment.

**The CHAIR:** Does that require a shift in the workforce—for example, I am assuming there may be a fair bit more activity in replanting at the moment than harvesting. Does the workforce shift easily or are they two completely separate workforces?

**Mr KEARNEY:** They are separate tasks but we have people with diversified skills that can undertake both. In terms of specific tasking, we will have to look at just what the balance is. It is not something we have moved to just yet, but we have flagged in our workforce that we may need to have some people, that have previously been doing predominantly one task, doing predominantly a different one. That sort of planning is happening at the moment.

**The Hon. MARK PEARSON:** You stated that the industry was very concerned about the ongoing drought. It is a drought that has been going on for years, essentially, and so the forests are drying and drying. If we did not get the rains that we have just had, what would the forestry industry have done? We have heard evidence that koalas are simply dying from dehydration and malnutrition because of the drought causing the trees that they rely on not being able to provide nutrition. What would the forestry industry have done if we had not received these rains? Next year we might have another bushfire season and no rains.

**Mr KEARNEY:** I cannot answer that with any great detail other than to say that, as I said, the principles of adaptive management are, when the situation changes and when you have new information, you work out what you need to do differently. I was very concerned about whether we might start seeing loss of productive forests through drought death. We have not seen that on a wide scale and we have now had the rains. We are even seeing recovery from the fires as well. I would not like to hypothesise what would happen if it never rained again, but there was a certain sense during the fire season that it just felt it was never going to rain again.

**The Hon. MARK PEARSON:** So there was no strategy in place to reduce logging in old growth or native forest?

Mr KEARNEY: No, we never reached a threshold like that.

**The Hon. MARK PEARSON:** What sort of resources are required for the industry to finally say, "Okay, we no longer need native forests for our supply. We are not going to be totally reliant on plantations of hardwoods and softwoods"? How long do you think it will be before the industry will be able to declare that? What resources would be required to fast-track it?

**Mr KEARNEY:** The only comment I can make on is that, with the 100-year wood-supply plans, the strategic plans I have, they assume that we will continue to harvest both plantation and native forests going forward. There is no assumption that we will be transitioning away from native forest harvesting. We have been harvesting our forests and regrowth forests for a hundred years. The models I have for sustainable supply include continuing supply from those forests for the next 100 years. The relative abundance of plantations on the North Coast does increase in those models in the later years, but it is based on the same plantation area we currently have.

**The Hon. MARK PEARSON:** So there is no plan at all to move away from some logging in native forests?

**Mr KEARNEY:** The plantation estate we have on the North Coast, as I said, at the moment it produces in the order of 20 per cent of our yield. In the modelling we have that increases to in the order of 40 per cent over the course of the next 50 years and is sustained at that level to the end of 100 years. But there is still predominantly native hardwood regrowth in that model, and that is the assumption our business works on.

**The CHAIR:** Thinking of the IFOAs and the tree retention rates in the coastal IFOAs, you are aware of the EPA document that was done in 2016 with its recommendations as to what the koala feed tree retention rate should be. I would like to get your view on that.

**Mr KEARNEY:** I was aware that various positions or options were tabled throughout that process, but I am not sure if I can pinpoint the particular document. Different positions or options for tree level retention rates and how that might be achieved were put forward over time. Some had higher retention rates for scatter trees. We ended up with a model that had slightly lower than those, but increased rates from the previous. That also included additional clumps of retained trees, which went somewhat towards again increasing the rates. I am not surprised there were numbers put forward that were not adopted, but I think what was adopted was quite a strong model that included a range of different mechanisms for retaining trees.

**The CHAIR:** Why were you not surprised? The Environment Protection Authority recommended what was needed to ensure the greatest level of protection of the environment possible while still trying to ensure that wood supply agreements were met. I understand that they had 25 trees per hectare in high-quality habitat. The Forestry Corporation essentially overrode that and said 10 healthy trees per hectare, so the EPA said 25, Forestry said 10. Why would Forestry Corporation not go with what the EPA recommended? Why were you not surprised that that did not happen?

Mr KEARNEY: There is a number of considerations when you look at what prescription might be desirable and workable. Part of the consideration is the logistics around it. Part of the consideration was what combination of measures. Tree retention specifically for koala trees was one, but then there are others and, in particular, clumps is one where there is both tree retention for koalas across the harvest area plus discrete clumps set aside. We ended up with a combination of different things. We did not override the EPA, we simply had a difference of opinion about what would be the optimal mix of those conditions. That was not something where

we made a decision, that was a government process that went through and looked at all the different options, took on expert advice and provided the final outcome, which is what we use. It was not like everything that is in there is what Forestry Corp wanted. There are a lot of challenges for our team in implementing the IFOA.

The CHAIR: Ms Sharpe, do you have a final question?

The Hon. PENNY SHARPE: No. I am sure Mr Kearney has answered all of the questions.

**The CHAIR:** Thank you very much, Mr Kearney, for coming here today and travelling from Coffs Harbour for this hearing, which was very informative. I understand you took some questions on notice. The secretariat will be touch with you in relation to those questions, and answers will need to be returned within 21 days. That is the end of this hearing.

(The witness withdrew.)

The Committee adjourned at 10:30