

**REPORT ON PROCEEDINGS BEFORE**

**PORTFOLIO COMMITTEE NO. 4 - REGIONAL NEW SOUTH  
WALES, WATER AND AGRICULTURE**

**LONG TERM SUSTAINABILITY AND FUTURE OF THE TIMBER  
AND FOREST PRODUCTS INDUSTRY**

**CORRECTED**

**At Macquarie Room, Parliament House, Sydney, on Wednesday 1 December 2021**

**The Committee met at 9:30.**

**PRESENT**

The Hon. Mark Banasiak (Chair)

Mr Justin Field

The Hon. Taylor Martin

The Hon. Peter Poulos

The Hon. Mick Veitch (Deputy Chair)

**PRESENT VIA VIDEOCONFERENCE**

The Hon. Peter Primrose



**The CHAIR:** Welcome to the third public hearing of the inquiry into the long-term sustainability and future of the timber and forest products industry. Before I commence I acknowledge the Gadigal people, who are the traditional custodians of this land. I pay respects to the Elders past, present and emerging of the Eora nation and extend that respect to other Aboriginals present. Today we will hear from a number of government agencies, including the Department of Primary Industries (Regions NSW), Forestry Corporation, the NSW Environment Protection Authority and the Natural Resources Commission. I thank everyone for making the time to give evidence to this important inquiry.

Before we commence I will make some brief comments about the procedures for today's hearing. Today's hearing is being broadcast live via the Parliament's website. A transcript of the hearing will be placed on the Committee's website when it becomes available. In accordance with the broadcast guidelines, media representatives are reminded that they must take responsibility for what they publish about the Committee's proceedings. While parliamentary privilege applies to witnesses giving evidence today, it does not apply to what witnesses say outside of their evidence at the hearing. I therefore urge witnesses to be careful about comments you may make to the media or to others after you complete your evidence.

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 answer only if they had more time or with 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. If witnesses wish to hand up documents, they should do so through the Committee staff.

In terms of audibility of the hearing today, I remind both Committee members and witnesses to speak into the microphones. I ask Committee members participating by Webex today to please state their name before speaking and clearly identify who questions are directed to. I also ask that you mute your microphones when you are not speaking. If you do start speaking while muted, please start your question again so it can be recorded in the transcript. Finally, could everyone please turn their mobile phones to silent for the duration of the hearing.

**BRAD LAW**, Principal Research Scientist—Forest Science Unit, Department of Primary Industries (Regional NSW), affirmed and examined

**NICK MILHAM**, Group Director, Forestry Policy, Research and Development, Department of Primary Industries (Regional NSW), affirmed and examined

**DAVID WITHERDIN**, Chief Executive Officer, Local Land Services, affirmed and examined

**ADAM TYNDALL**, Director, Policy and Reform, Local Land Services, sworn and examined

**The CHAIR:** Would anyone like to make a short opening statement? Dr Law?

**Dr LAW:** I thought I would start by saying my background is that I have 35 years of experience working as a scientist on wildlife ecology and I have published over 150 peer reviewed scientific papers. The forest ecology science team that I am part of has been researching wildlife in New South Wales forests since the 1970s. Understanding the ecology of forest wildlife has been our primary focus, and this has involved designing experiments to look at the response of species to timber harvesting, fire and other forest disturbances. Improving our understanding of threatened species to better protect them has been and is a priority. Many of these studies are long term because that is the nature of assessing forest cycles.

Because of the huge number of species that occur in New South Wales forests our understanding of biodiversity remains incomplete. Any consideration of ecological sustainability should consider this, even though we have made substantial progress in understanding how different species respond to timber harvesting and other disturbances. The current development by the Natural Resources Commission [NRC] and partner agencies of a long-term, cross-tenure forest monitoring program will over time address gaps in our understanding of changes in the status of species. There are, however, some species that we already know a lot about. For example, in 2015 we began region-wide monitoring of koalas and other species in hinterland forests of north-east New South Wales. This has continued annually since then, including through the fire summer of 2019-20.

Overall, our research points towards the ability of mitigation measures as well as time and space constraints deployed under forestry regulations to reduce the impact of forest disturbances. Forest literature around the world suggests that retention forestry has the greatest role to play in mitigating impacts. Retention forestry means retaining unharvested areas throughout the landscape at different scales, from individual habitat trees to clumps for wildlife to excluding harvest from old growth, rainforest and riparian areas along creeks. This approach is adopted in regulatory practice in New South Wales, with the Coastal Integrated Forestry Operations Approval [CIFOA] being the most recent example. In State forests of New South Wales, these harvest exclusions amount, on average, to 40 per cent to 50 per cent of the landscape. This maintains a mosaic of forest ages, refuges and connectivity across the landscape that aids persistence and recolonisation after disturbance.

Research funded through the NSW Koala Strategy demonstrates the effectiveness of this landscape approach in sustaining koala habitat and populations even in newly harvested areas. Our research found no difference between koala presence and density in harvested State forests and control sites in national parks. GPS tracking of individual koalas in forestry landscapes further supports that conclusion. On the other hand, we measured that high-severity fire had a very large effect on koala density. These results do not mean that there is no room for improvement; adaptive management and monitoring should be a fundamental part of any sustainable practice and in fact already are integral to the forest management framework in New South Wales. My research and the work of my colleagues is designed to ensure that that framework is well informed and adapts on the basis of robust science. Thank you.

**The CHAIR:** Would you be happy to table that statement so that Hansard gets you 100 per cent correct?

**Dr LAW:** Yes.

**The CHAIR:** Excellent. Thank you. We have resolved to have some free-flow questions today, so I am looking for takers.

**The Hon. MICK VEITCH:** This is a pretty open question to each of the panel members here. I take it you have had a chance to now read the transcripts from the previous hearings. A number of matters have been raised, which no doubt we are going to explore, but if there are really pertinent matters that, when you leave here today, you do not want to have left unanswered, here is your chance to respond to those matters that might be in the transcripts that need answering. No? I will open up. I will start somewhere. Mr Witherdin?

**Mr WITHERDIN:** I have certainly been briefed on them, Mr Veitch. I will not say that I am across it in exhaustive detail. I think in terms of Local Land Services [LLS], as you are well aware, our role is in administering the approvals for private native forestry [PNF]—something that only came across from the

Environment Protection Authority [EPA] to us late in April 2018 so we are about 3½ years into that journey. I think as people are well aware, going through, we are almost at the back end of that process in terms of developing new codes that are really fit for purpose. Private native forestry is a real opportunity for sustainability. It is a sustainable resource that can deliver robust outcomes for a whole range of stakeholders. I think we have certainly covered off in previous estimates sessions that it is not without its challenges there at the moment. But I think that we have got a real opportunity to address those going forward.

**The Hon. MICK VEITCH:** Mr Milham, is there anything in the transcripts from the previous two hearings that you think you do not want to leave here today having not answered?

**Mr MILHAM:** Yes. There were, I think, two issues that came up that I would simply like to comment on briefly. One is there was some conversation around whether or not differing types of demand for timber and forest products might lead to increased harvesting, particularly within our native forest context. I think that can simply be put to rest, that concern, because it is not actually the end use of forest or forest products that determines how much can be removed from the forest. That is actually determined by long-term ecologically sustainable yield modelling, constrained by our regional forest agreement commitments. In fact, it does not matter what the demand is for the product, you simply cannot remove more biomass from the forests under our regulatory regime. So that was one of them.

The other one is there seemed to be a fair difference of opinion being expressed to the Committee by differing witnesses about carbon cycling in our native forests. We have the privilege in New South Wales of employing some of the best carbon cycling in forests and climate change scientists in the world. We are in the position where other countries and international organisations come to us for advice on the basis of the status of our scientific expertise. Their research—and I can provide copies of papers to the Committee—and the global weight of science accepted by organisations like the Intergovernmental Panel on Climate Change, the International Energy Agency, the Food and Agriculture Organization under the United Nations is that the use of forest biomass and managing our native forests in that way is not only renewable and sustainable, it has superior carbon outcomes to not managing our forests in that way and is looked at to be part of the solution to a low-carbon future globally.

**The Hon. MICK VEITCH:** I have one more question before I will go to Mr Field, but I will come back with more questions. A lot of the testimony we heard previously indicated that there needed to be a change in silviculture practice in New South Wales. I know there are a lot of components to silviculture practice; silviculture is a pretty big area. Do you accept the evidence that we heard around the need to change silviculture practice and the management of our forests in New South Wales? If so, what are the elements that you think we need to focus on?

**Mr MILHAM:** My apologies, I am not a forester and I am not trained in forest science, so I cannot provide an answer to that question. Dr Law can speak for himself, but he is also not a forester.

**The Hon. MICK VEITCH:** Remember, Dr Law, that Professor Gibbons and Professor Lindenmayer were here. They were talking about the silviculture practice and research that they have been undertaking in that area. I see that you are the principal research scientist with the Department of Primary Industries [DPI]. That is a pretty exciting role, I dare say, and broader than just this. What sort of research is DPI involved in in this area?

**Dr LAW:** In terms of silviculture research, a lot of that research has probably been done in the past. I do not know that there is a particularly active role at the moment, but we have one silvicultural scientist who is experienced in that area. And, as you said, silviculture differs very much from region to region. New South Wales silviculture is very different to Victoria and Tasmania.

**The Hon. MICK VEITCH:** Do the taxpayers of New South Wales invest much in research into silviculture?

**Mr MILHAM:** I might take that question, Dr Law. In relation to the Department of Primary Industries—I cannot speak for any of the other agencies in this space—the Forest Science group is, in actual fact, more than half of my team. We have over 20 full-time equivalents [FTEs] invested in Forest Science within the Department of Primary Industries. The primary focus of our research is in areas such as forest health and biosecurity, in carbon cycling within forests—obviously a key issue of public policy—and in relation to the management of our forests, and also in forest ecology. The purpose of that research is to assist in informing our regulatory settings primarily, and to ensure that those settings are effective or, if not, whether they need to be adapted.

**The Hon. MICK VEITCH:** With regard to forest health and biodiversity, how much do you spend on research into weed eradication?

**Mr MILHAM:** My team does not work in the weed space. Our forest health and biosecurity focus is primarily on pests and diseases of trees.

**The Hon. MICK VEITCH:** Do we do any research on the impact of weeds on, for instance, fire load—fuel load?

**Mr MILHAM:** Not within my team.

**The Hon. MICK VEITCH:** Dr Law, are you aware of that?

**Dr LAW:** No. I am a fauna ecologist, so I specialise on animals. We do not have an active program on weeds, that is correct.

**Mr JUSTIN FIELD:** Thank you for your attendance today. I know there is a lot going on in this sector at the moment. Obviously you would have noticed that the NRC's report into the Coastal IFOA operations post the wildfires was leaked to the media last week. It is difficult not to consider some of the implications in that report given that this inquiry is about the future sustainability of the timber industry. It points to a pretty dramatic fall in sustainable timber supply in our native forests, particularly on the South Coast, but even on the North Coast there is about a 30 per cent reduction in large, high-quality sawlogs that are likely to be available in our forests over the next 30, 40 or 50 years. Can I get a comment on that? From here it seems that there is no way that the native timber industry is doing anything but contracting into the future. Would that be correct?

**Mr MILHAM:** The long-term ecologically sustainable yield review that was undertaken post the 2019-20 bushfires has indicated that there will need to be reductions in future wood supply commitments out of our public native forests.

**Mr JUSTIN FIELD:** That is a bit contested because it was largely a draft report based on desktop studies. The report acknowledges that more on-the-ground work is going to be needed over time. The NRC report seems to suggest that that is accurate to some degree but that there might be some differences. Obviously it depends on the use as well. Mr Witherdin, this goes to the point that you and I have been sparring over for a little while now. Mr Milham, this might be for you as well. Is there an expectation that private native forestry will pick up the slack here and you will maintain a similar level of net timber supply to processors and millers into the future?

**Mr WITHERDIN:** I will certainly speak from a LLS perspective, and I may invite Dr Tyndall in. Certainly I do not think it is true to characterise that as there is an expectation for PNF to make up that slack at all. What we have seen in terms of the number of plans we have approved over the last three years, I think on average it is about 288 plans a year and the long-term average is closer to 300. So we have not really seen an uplift in terms of engagement there. I have certainly discussed previously the lack of quality information around what is happening in terms of the current yield from that. I think that is a real weakness of the codes currently, and that is something we are absolutely intent on addressing as part of the new codes in terms of—

**Mr JUSTIN FIELD:** For those members who have not been listening to us over the past few cycles of estimates, just to be clear, you and the broader government—whether it is the EPA, LLS or the Department of Regional NSW—have no idea how much timber is coming out of the private native forestry sector each year, right?

**Mr WITHERDIN:** There are certainly metrics that we can draw from—there are two sources there in terms of the Australian Bureau of Agricultural and Resource Economics and Sciences [ABARES] data, but that is only three-yearly data. The most recent we have is 2018, so we are due to get some new data there. Then there is the Statewide Landcover and Tree Study [SLATS] data from the aerial work that Environment, Energy and Science [EES] does. In terms of annual reports from individual landholders—

**Mr JUSTIN FIELD:** Would you put a figure on it? Would you give me cubic metreage or a hectare?

**Mr WITHERDIN:** Not with any degree of accuracy whatsoever. Certainly in terms of the new codes, the intention there is for landholders to submit both pre- and post-harvest reports in terms of the forecast of what they intend to do and then what they have actually done. That will, I think, create a good baseline of evidence there in terms of what the yield is now, rather than looking back in terms of what has happened. But I am certainly not aware of any work we have been engaged with in terms of looking at the aggregate yield from both private native forestry and the State forest hardwood network and the balancing around that. The work we have done has certainly been absolutely independent of that. But I am happy to invite Dr Tyndall to add any more to that.

**Dr TYNDALL:** I think just to add to that, it is an area that we have identified as an area for improvement. The 30-day pre-harvest survey and the 30-day post-harvest survey will give us a better level of data on the private estate. Landholders will give us an approximate estimate of the cubic metres that are taken off when they are doing harvesting and also the area that is being harvested.

**Mr JUSTIN FIELD:** But the total estate at the moment is pretty substantial. Can you put a figure on the total area under private native forestry approvals?

**Mr WITHERDIN:** Yes.

**Dr TYNDALL:** It is approximately 640,000 hectares, which is—

**Mr JUSTIN FIELD:** It is almost 70 per cent of the total public estate in net harvestable area, right? It is coming up to a similar size to the public estate, so it is substantial. The Government's submission to this inquiry tries to emphasise just 1 per cent of the public estate is harvested each year. Would you think it would be similar in the private estate?

**Mr WITHERDIN:** I think the best figures we have got there from the SLATS data, I think, is in the order of about 19,000 hectares per annum based on the 10-year average.

**Dr TYNDALL:** It is important, I think, to make the distinction between what has been approved and what is actually harvested every year.

**Mr JUSTIN FIELD:** Yes.

**Dr TYNDALL:** The SLATS data is an indication. With that pre-harvest and post-harvest notification we will get a more granular understanding of what is happening on the estate—

**Mr JUSTIN FIELD:** I guess where I am getting to is that you make the point that in the public estate it is just 1 per cent harvested per year. That is one of the sustainability claims. Obviously it takes 40-odd years for them to regenerate to full diversity, I guess, so it is a large amount of estate that is impacted at any one time. I guess my point is that once a PNF approval is granted you cannot control who logs when or where. You could actually see quite intense impacts in any particular year in the private estate, could you not?

**Mr WITHERDIN:** Yes, there is certainly the potential for that. I do not believe we are seeing that. Certainly the SLATS data is not indicating that. The wood supply challenges there for mills are not indicating that—but absolutely, yes.

**Mr JUSTIN FIELD:** To try to close the circle here, given the analysis suggests the public estate is going to be under substantial pressure for the foreseeable future post-fires, I am raising this issue because I am concerned we will see that focus on the private estate. As you point out, we are not quite there with the regulatory framework yet, and the data and the analysis. Do you have a map of all of the private native forestry approvals?

**Mr WITHERDIN:** Yes, absolutely. That is all—

**Mr JUSTIN FIELD:** When you approve one it is just based on the individual circumstances for that property, right? You do not need to do a sort of local or regional assessment. You are not making a judgement about if this property and that property and that property all log at the same time, we are going to have this cumulative regional assessment? There is nothing like that in the approval process, is there?

**Dr TYNDALL:** We do a risk assessment of each of the approvals that we approve, including the neighbouring properties and what the habitat is on those neighbouring areas. That is part of our risk assessment framework when we approve plans.

**Mr JUSTIN FIELD:** So if someone gets in first and then the neighbour wants to do it as well, there might be a restriction on them based on the fact that their neighbour has already got an approval in similar habitat?

**Dr TYNDALL:** That would trigger a site visit by our staff to go and talk to the landholder.

**Mr JUSTIN FIELD:** Okay. How many of those sorts of site visits do you do in any given year?

**Dr TYNDALL:** I would have to take that on notice. It has obviously been constrained since COVID at the moment.

**Mr JUSTIN FIELD:** Chair, I am happy to hand over. I will come back if there is time.

**The CHAIR:** Yes, I might just throw a couple of questions at it. It is obvious from most of the submissions and most of the evidence we receive that we are going to struggle in terms of supplying the timber we need for the housing boom. What work is being done from your departments in terms of improving inefficiencies so we are getting—we obviously cannot harvest more wood than the sustainable yield, but making sure that we are making best use of what we can get out to actually alleviate the issue that we are going to come up against in, I think, 2061 was the—

**The Hon. MICK VEITCH:** It was 2061 or 2050 or—

**The CHAIR:** Yes.

**Mr MILHAM:** Chair, I might start answering that question. There have been a number of things that we have done within the Government and there are further thoughts being given to what can be done. We are fully appreciative of the high and rising demand for timber and the fact there are trade constraints on other sources of supply, which is in fact the main reason for the shortage that we are seeing, where concerns are being expressed, for example, by the construction sector. But key actions have already been taken.

One of the major programs within the Bushfire Industry Recovery program was what were called stream two Sector Development Grants. There are quite a few of those that went to forestry industry businesses in relation to proposals put forward by them to help them maximise the efficiency and productivity of the timber that will be available in order to ensure that those businesses both were sustained themselves, which is obviously significant from a regional employment perspective, but also in terms of then maximising output from those businesses that will then flow through to other uses—for example, in the construction sector. We also provided funding for accelerated re-establishment of the plantation timber in particular, and there was funding provided for nursery expansion and also for rapid replanting.

One of the key efforts was a major salvage program, particularly in relation to the plantation sector, to get as much of the timber out as could be salvaged in order to ensure that that timber was not wasted. Pine does not recover from fire, but while it is still standing in the plantation there is a period before it deteriorates to the point where it is no longer useful. There was a major salvage operation to recover all of that timber before it deteriorated. That has in fact resulted in—I think the figures are something like double the normal harvest of that timber over the last 18 months or so. We were seeking to recover everything we possibly could over that period of time, and then to ensure that there is rapid replanting and also investment in maximising the use of the timber that was available.

Another initiative taken by the former Deputy Premier—he took advantage of the opportunity provided by the closure of the China export market to issue a direction to ensure that pine sawlog that would have otherwise been exported was retained onshore and is going into the domestic industry. That is commonly referred to as the "Walcha direction" as that is where the plantations are, up in the Walcha region on the Northern Tablelands. Those are just some of the initiatives that have been taken to try to address the shortfall. Further to the comments that Mr Witherdin and Dr Tyndall have made in relation to PNF, obviously the Government cannot determine what might be harvested in a PNF space. It is obviously a standing stock of timber, and the only standing stock of timber that is available, but of course any harvesting on the private estate is subject to the interests of the landholder and also the requirements of the relevant code.

**The Hon. MICK VEITCH:** Just to follow on, at a previous hearing I asked the Australian Forest Products Association NSW:

Do we have sufficient plantation softwood and hardwood in New South Wales to meet supply going forward, say, for 20 to 30 years?

They said:

The short answer is no.

They went on to say that the ABARES *Australian plantation statistics and log availability report 2021*, dated 25 October 2021, demonstrates there is a stagnation in the plantation estate growth. They also pointed to the Master Builders and Australian Forest Products Association report published on 28 September 2021 that said there would be a housing timber frame shortage by 2035. So they are saying there is a shortfall.

**Mr MILHAM:** Absolutely. There is no denying there is a shortfall and the shortfall is rising as demand for timber is rising. That is also within the Department of Primary Industries, the significant interest we have got in work in the carbon cycling and that bioenergy space, because if you can improve the economics of plantation forestry by having other products from plantations that provide returns to the investor, then that will obviously assist in stimulating investment in plantations. We have got a strong interest in that and we have been working on carbon cycling, as I mentioned before, for a long time, and there are gradual developments happening in the carbon market space. We have also got a strong interest—and the fact that we are well positioned within the Department of Primary Industries and with our colleagues in Local Land Services to be looking into and promoting the benefits of forestry as part of broader farm operations, both plantation forestry and native forestry. So we are also looking into that in terms of seeking to stimulate increased supply of timber.

**The CHAIR:** Following on from that, we have received from Timber NSW a response to supplementary questions. They have indicated that the timber supply has been reasonably stable in recent years, but they expect further decline when the effect of the Black Summer fires are actually brought to account. Do you have a rough idea when we are actually going to see the true bite of those Black Summer fires?



**Mr MILHAM:** Mr Witherdin may have a response for PNF, but there are two parts to that question—one is the plantation estate, particularly softwood plantation estate, and then there is native forestry. In that softwood plantation estate, about 25 per cent of the estate was affected, both the public estate and also the private estate; it was very similar across the two sectors. As I have already mentioned, there is a real flush of fire-affected timber currently in the system, but once that works its way through, then we will start to see the impact of reduced supply of domestic softwood through to its various uses. That will exacerbate the impacts of the current trade-related restrictions in supply. We expect to see that—well, we are already seeing that start to impact in the market, and we expect to see that will exacerbate that situation.

In the native forest estate and, in particular, in relation to supply from public land—so the land that is managed by the Forestry Corporation—the analysis that they have done on behalf of the Government, that long-term ecologically sustainable yield forecasting, which Mr Field mentioned, indicates that current levels of supply under current wood supply commitments will be able to be maintained for the term of those commitments; they will not be impacted. But then once we get beyond the current commitments, it depends on what region you are in. Up the North Coast and the North Coast region, the impact is likely to be minimal, if at all; there may be some slight reduction. In southern New South Wales and on the Southern Highlands—so coastal and Southern Highlands, Snowy Valleys—that impact will be quite substantial, as indicated by the sustainable yield forecasts, but not for the period of the current term of wood supply agreements. So you are looking about 10 years out into the future before that really starts to bite. But it will.

**The Hon. MICK VEITCH:** About 10 years? I live at Tumut, so Snowy Valleys—

**Mr MILHAM:** The former Deputy Premier said straight out there is a time coming when it simply will not be business as usual in this sector.

**The Hon. MICK VEITCH:** Okay. I will leave that there.

**The CHAIR:** Just quickly before Mr Field wants to jump in again, picking up around silviculture and research and what is being done by the various departments, we had evidence from some of the foresters that said that 10 years ago there was a lot of on-ground work being done with the harvesting crews to improve their knowledge and education around areas of productivity but also silviculture and soil water control issues, but they have not really seen anything being done in the last 10 years. So I thought I would give you guys an opportunity to respond to that. I have noted from you, Dr Law, there is a lot of research going on, but my concern about research is that sometimes it never actually gets to the practical stage; it is just research for research. I am really interested to know what is being done with the research, how is it actually being translated into positive action on the ground.

**Dr LAW:** I can answer that in relation to wildlife ecology, not so much soil and water and silviculture. The research we do does feed into the integrated forestry operations approval [IFOA]. When it was being prepared and negotiated, there were technical workshops that I was involved with where various different ideas were discussed about what practices should be implemented. There was that avenue for direct input into changes and management. We do not currently but we used to run wildlife schools for forest operators and anyone who was interested in that on-ground knowledge. That was a program that was run a couple of times a year that extended for probably 15 to 20 years. That is in the wildlife space. Maybe something else can be said about the other space.

**Mr WITHERDIN:** I am very happy to speak from a private native forestry point of view. Certainly when it came across to us in terms of the approval function, there were three staff that transferred across from the Environment Protection Authority. That was sort of the extent of resources we had there. We are now more than 12 people in terms of that team. As Mr Milham mentioned, the diversity of income stream there is really important for landholders. It does provide an opportunity. We did see that through drought as well where there was not the opportunity there with stock or anything but there certainly is with PNF in the longer term; that is important. There are important opportunities there for Aboriginal landholders as well. So we have had really significant investment in terms of extension capability there for landholders in terms of really trying to help them navigate their way through it.

Often they are not experts in this space, far from it. So giving them best practice guidelines there in terms of environmental management, running workshops and field days, that has been a really big part of what we are doing on the ground. It is sort of that real practical engagement with landholders and trying to sort of improve the standards of operation there. We are committed to that well into the future, and I think when we get to the point that those new codes have been adopted, there will be a really significant extension piece around that. There will be environmental monitoring that will accompany that and opportunities in terms of certification as well. I do not know if there is any more that Dr Tyndall wants to add to that.

**Dr TYNDALL:** The only thing that I would add is we have built an extension program, I think, from the ground up. So we got some funding through the Commonwealth's North East Forestry Hub to run on-ground extension days, which happened in Kyogle, Wauchope and Grafton earlier this year, pre-COVID. We have just finished a series of webinar sessions, which are sort of lunch-and-learns for contractors and farmers, and we are really pleased with the result there—we had more than 300 people attend those sessions, six workshops. I think, going into the future, that combination of on-ground extension days where we give people the practical knowledge but also those webinars where people can dip in and find some information over lunch for an hour would be a useful complement to what we are doing.

**Mr MILHAM:** And within the Department of Primary Industries we are also leading what is, in fact, a national project with the Australian Forest Contractors Association in order to develop a set of training modules and then industry accreditation for contractors. These are the people who are actually out in the forest driving the machinery et cetera. Funding was provided by the New South Wales Government back in 2018 for a four-year project, which is now drawing to a close, and that training and our particular interest in the environmental sustainability aspect of that training, that is designed to try to ensure that when you are out in the forest, boots on the ground, the environmental performance of those operations is improved. So the training reflects, for example in New South Wales, the requirements of our integrated forest operations approvals, our plantations code, our private native forestry codes et cetera. That work is ongoing as we speak and will be concluded by the middle of next year.

**Mr JUSTIN FIELD:** I wanted to try and get a bit of a better handle on the employment scenarios in the sector at the moment. I have seen various figures, direct and indirect figures, attributed to the sector. I am particularly focused on, I guess, the native hardwood sector here, and I know that obviously PNF supply contributes to that in terms of mill employment and the like. The NRC report specifies some estimated direct jobs. It seems to me these figures are pulled from answers that came from budget estimates questions though. So I think it would be helpful for our inquiry to have a good handle on what the Government thinks about the direct jobs in Forestry Corporation—the mills, the other processors, the logging contractors, the haulage contractors. Can you provide an authoritative figure for us to have an understanding about the implications here for the industry and exactly how many people we are talking about here?

**Mr MILHAM:** We rely on ABS statistics and Australian Bureau of Agricultural and Resource Economics survey figures, and they do not break down employment in this sector to that level. The industry analysis team within the Department of Primary Industries—that is, sort of the economics group within the department—calculates the estimates based on the information that is available. We can certainly provide that, and I have got some overarching figures here that I can provide if you have got specific questions that I might be able to answer, otherwise I can take it on notice.

**Mr JUSTIN FIELD:** I am happy to put specific ones on notice. Do you contest the NRC's figures in here that actually give us a breakdown for each of the sub-regions. Estimated jobs in the South Coast, and we are talking about in the mills and in contractors and processing, is 67. Eden is 250—obviously they have got the chip mill down there. They are quite small figures. On the North Coast estimated direct jobs—this is pre the fires—is 590 across all the mills, contractors, Forestry Corporation staff and the like. Do you contest those figures?

**Mr MILHAM:** No, because I do not know what the basis of those figures is.

**Mr JUSTIN FIELD:** I will put questions on notice to that effect. I think it would be particularly useful for us to understand the breakdown here because there are many different figures being circulated by industry groups and even the Government sometimes puts out figures which make it hard to get to the bottom of that. I do not want to get too much into the policy response to the NRC report, and we do not have any politicians appearing today, but I would like to get a sense, if I could. The NRC has made substantial recommendations to additional prescriptions, particularly in those heavily burnt areas, the areas they define as extreme- and high- and medium-risk sites, which is the majority of the public native forest. Have any of those prescriptions been applied to operations in public forests at the moment?

**Mr MILHAM:** I cannot speak to the specifics of the recommendations in the NRC report, which is a matter that is under consideration by the Ministers, so I cannot provide an assessment for this Committee as to the extent to which the additional measures that the Forestry Corporation has voluntarily put in place may reflect those, simply because I do not actually know the answer to that. But the Forestry Corporation has definitely put in place additional risk management measures further to the site-specific operating conditions process that they are engaged in with the Environment Protection Authority, and I know that the measures they have put in place very closely reflect those that the EPA had been requiring and then recommending. To the extent to which they may or may not reflect what the NRC has indicated, I cannot comment.

**Mr JUSTIN FIELD:** They make clear in their report, and the EPA has said this publicly as well, that those additional prescriptions Forestry Corporation have applied are not enforceable—as a regulator they cannot enforce them—and the suggestion in this report is that they go nowhere near far enough. It actually specifies that there is a risk of severe and irreversible damage should additional prescriptions not be applied. This is a difficult area because often we get thrown back to Forestry Corporation, who sort of have responsibility here, but the Government ultimately needs to ensure that the rules meet the principles of ecologically sustainable forestry management [ESFM]. It is pretty clear from this report—I will cut to the chase—that the Coastal IFOA is not adequate to ensure that Forestry Corporation can meet its obligations under ecologically sustainable forestry management. I am just wondering if the Government has a comment on that. We are talking about the long-term sustainability of the industry here. The expert report suggests that the CIFOA is inadequate. How do we rectify these two things? Does the CIFOA need to be reviewed?

**Mr MILHAM:** The NRC's report on the CIFOA and the impacts of those bushfires, the 2019-20 bushfires, is with the Ministers. A Government response to that report and whether or not that may lead to regulatory change is in the hands of the Ministers and Cabinet and I cannot comment any further.

**Mr JUSTIN FIELD:** The fires were now quite a while ago—18 months at least since they ended, particularly on the South Coast. All of the forestry area on the South Coast is prescribed under this report as either extreme or high risk. There is logging currently going on there that is well outside of the prescriptions. The EPA has no regulatory power here anymore, it seems, because it has been hived off to this independent report and Forestry have put in place voluntary controls. I am just trying to understand how it is that any of the rules here and the principles underpinning the Act are actually currently being applied in harvesting operations.

**Mr MILHAM:** The current rule set in that region is the Coastal IFOA and unless and until the Government decides to change that rule set, the Forestry Corporation is both required and expected to comply with it. But, in addition, they have chosen to self-impose some additional risk-management measures.

**Mr JUSTIN FIELD:** There has been some suggestion in some of the Government Information Public Access Act documents that we got back last year that Forestry Corporation, in the aftermath of the fires, was pushing for access to private native forestry. I think they were engaging directly with LLS—that is certainly the suggestion in some of the minutes from the working group meetings—to get access for their contractors to private operations. Mr Witherdin, what is the extent of the cooperation between Forestry Corporation and LLS to get access for Forestry Corporation to be able to supply their customers with private native forestry materials?

**Mr WITHERDIN:** Certainly my understanding, very limited. I think, to talk in terms of fires, that only about 4 per cent of the private native forestry estate was impacted by the fires. So that was sort of the good news there. Also, within that that was affected there is sort of no salvage harvesting available either. But certainly, in terms of that working with Forestry, maybe you can comment on that, Dr Tyndall, but I certainly do not have any engagement as part of that with Forestry.

**Dr TYNDALL:** We do not hand out, obviously, the details of private landholders to third parties without their consent. I would have to take that on notice, but my understanding is that we did not approve any PNF plans for Forestry Corporation as a result of the fires.

**Mr JUSTIN FIELD:** I am not suggesting that they were approved. Certainly the suggestion in the emails that were contained within the recent call for papers—they were the working group minutes—was, "Forestry is pushing us for access to private native forestry," so I am just wondering how that happened. Did LLS, on the South Coast primarily, contact some private native forestry approval holders and suggest, "Hey, you might like to reach out to these contractors or to the local Forestry Corporation branch and say you wouldn't mind selling some timber. At the moment they're looking for trees for local mills"? Is that how it would have happened?

**Dr TYNDALL:** I would have to take that on notice because I am not across that.

**Mr JUSTIN FIELD:** Okay. I would like to get an understanding of the level of cooperation around that.

**Dr TYNDALL:** Yes.

**Mr JUSTIN FIELD:** Mr Milham, you talked about being able to find additional markets for the resources in the forests. The *North Coast Residues* report clearly points to the department and the Government generally looking to use materials from our native forests for bioenergy. Would you agree that the fires would have had a substantial impact on the available resource in the forests in terms of pulp logs and offcuts that could support residues going to bioenergy?

**Mr MILHAM:** I disagree with the premise of the question in relation to that particular report. The research was undertaken and the report was written by members of my Forest Science group. The report actually did not focus on bioenergy. It was an extensive and comprehensive report in trying to determine the extent of the

residue availability in order to then desirably stimulate a market use for that. It was basically about market information, and the use of it could have been of any nature. The report simply used the potential energy generation from the amount of residues that was identified as being available after taking account of all the requirements for leaving residues in the forest. It identified what that could potentially mean in relation to—an illustrative example being bioenergy. But the focus of the report was not on bioenergy.

The amount of the residues available depends upon what is actually harvested and then what is then offcuts et cetera that happen in the milling sector. Whether or not that has changed as a consequence of the bushfires will depend on the volume of material that has come out of the forests. There is a reduced volume of material that has come out of those forests over the last two years or so, obviously because of access constraints in relation to the bushfires—you simply could not get in there to harvest—and also in relation to subsequent heavy wet weather over the course of last year and early this year as well. So whether there is going to be a longer term reduction in the availability of those residues such that it may reduce market interest in them when they are accumulated would be a matter for I guess those who might have an interest in using those residues to determine.

**Mr JUSTIN FIELD:** Are you able to provide on notice the current volume, under existing wood supply agreements, of pulp logs and other residues from native forest logging in New South Wales?

**Mr MILHAM:** That would be a question that would need to be addressed to the Forestry Corporation.

**Mr JUSTIN FIELD:** I will do that, certainly. In the evidence that Dr Annette Cowie provided recently to the Land and Environment Court in response to the Verdant Earth Technologies Redbank proposal—to turn it into a major biomass facility—she cited the *North Coast Residues* report. Its demand for biomass for that facility would pretty much consume all of the North Coast residues, as illustrated in that report, so it is fair to assume that there is a bit of a push on by the department to see those residues used for bioenergy. Is that right?

**Mr MILHAM:** No. As I indicated before, we have got an interest in opportunities to improve the economics of forestry, both plantation and native forestry, because, particularly in the plantation space, we are looking to stimulate production in order to meet the—

**Mr JUSTIN FIELD:** Sorry, I am not talking about plantation here though.

**Mr MILHAM:** No, but that is the broader interest that we have. We have also got an interest in carbon outcomes and greenhouse gas emissions. International scientific opinion is that part of the answer to that problem is increased use of biomass for bioenergy as a substitute for carbon-intensive fossil fuels. That also would have the added benefit of improving the economics—providing additional economic opportunities—for forest managers. That is our interest. Whether or not the specific feedstock requirements of recommissioning Redbank as a biomass facility could or would be met from our North Coast forests is a matter for the proponents as to where they believe they are going to be able to economically source feedstock.

**Mr JUSTIN FIELD:** In her evidence, Dr Cowie directly contradicted the EPA's submission to that proposal, where it contested that there was a higher value use for that material in large part on the forest floor. In terms of economically sustainable forest management, there is a value of that biomass on the floor for habitat, regeneration and the like. What is the view of government about this? We have got two agencies. We see this a bit in forestry—either the EPA versus Forestry Corporation or the EPA versus the DPI. What is the position of the Government about the highest value use of those materials?

**Mr MILHAM:** I cannot comment on an expert basis because I am not on Dr Cowie's evidence. What I do know is that, in relation to native forestry operations, the rules under which those operations are conducted, particularly in public native forests, already require levels of residue to be left behind for habitat purposes. So anything that we might term as "residues", using that term, would relate to biomass that the forest operator is entitled to remove over and above any habitat requirements and retention requirements. So it is a question that I cannot answer from a technical perspective any better than Dr Cowie answered it. But I do not actually see that it is a point of challenge between the agencies either because the habitat requirements are already being addressed through the regulatory rules.

**The Hon. MICK VEITCH:** My questions are to Mr Witherdin. Given the time, you may want to take them on notice. As I understand it, I think you said that essentially the LLS took over from the EPA in about April 2018. Is that correct?

**Mr WITHERDIN:** Yes, that is correct.

**The Hon. MICK VEITCH:** You mentioned an increase in your FTEs since then. There are a couple of aspects to this. Actually, there are probably more than two. Could you provide us a schematic of the org chart now with that group of people that you have taken on board since then and their roles, just so that we have a better idea about how you have had to gear up for this new role? The second part is, I would really like to get an understanding

of just what LLS's role is: how you operate in the PNF space, what your role is as per the legal requirements that are imposed on you and how, if at all, that differs to when the EPA was involved. Can you take that on notice? I just want some clarity around what LLS's role is and a bit of an idea about what your uptake in staff looks like, and why.

**Mr WITHERDIN:** Yes, we would be really happy to do that and then happy to follow up in more detail if you would like to as well, Mr Veitch. We can talk you right through that and explain how it all operates. That is not a problem.

**The Hon. MICK VEITCH:** Okay, thank you.

**The CHAIR:** There are no wrap-up questions from the Government?

**The Hon. MICK VEITCH:** It is always a good sign. If the Government members do not have any questions, there is nothing to clean up.

**The CHAIR:** Excellent. Thank you very much for your time. You have taken a couple of questions on notice, so the secretariat will be in touch about the time line.

**(The witnesses withdrew.)**

**PETER McKECHNIE**, Deputy Commissioner, NSW Rural Fire Service, affirmed and examined

**DEAN KEARNEY**, Senior Manager Planning, Hardwood Forests Division, Forestry Corporation of NSW, affirmed and examined

**DEAN ANDERSON**, Regional Manager, Snowy Region, Softwood Plantations Division, Forestry Corporation of NSW, affirmed and examined

**The CHAIR:** Would anyone like to make a short opening statement?

**Mr KEARNEY:** Mr Anderson and I are appearing on behalf of Forestry Corporation. I would like to give a little bit of background on that. Forestry Corporation are a State-owned corporation [SOC]. We are appointed under the Forestry Act to manage New South Wales State forests. Our land management functions include managing for conservation, so around half of the estate we manage is managed for conservation. It also includes protection of Aboriginal cultural heritage, provision of community access and recreation facilities, facilitation of tourism opportunities, pest and weed management, and management of activities such as beekeeping and grazing. We are a fire authority, so we have obligations in relation to fire management.

All of our staff are involved in the firefighting effort. Most of us are trained on-ground firefighters, and that includes Mr Anderson and myself. And, of course, we grow and harvest renewable timber and wood products. We manage around two million hectares of multiple-use public forest, and that includes coastal native forests, the western cypress forests and the red gum forests in the south-west of the State. We have approximately 225,000 hectares of softwood plantations and just under 35,000 hectares of hardwood plantations.

As an organisation, we have been around for over 100 years, originally formed as the Forestry Commission in 1916. We have been a corporate entity as Forestry Corporation since 2013. Our objectives as a SOC are set by the Forestry Act. They are clear. They specifically set out that we are to operate as efficiently as any comparable business, to maximise the net worth of the State's investment, to have regard to the interests of the community, to apply the principles of ecologically sustainable development, to contribute towards regional development and to be an efficient environmental supplier of sustainable timber. All those objectives are to have equal weight. That is as it reads in the Act.

Importantly, we are not a policy agency but we are operationally focused and to that end we are the largest producer of wood products and the largest production forest manager in New South Wales. The raw products we harvest represent a sustainable supply of renewable timber that is used by a wide range of industry for a wide range of purposes. That includes hardwood and softwood timber for structural purposes such as housing, flooring, decking, external structural users, transmission poles, bridge timbers, landscaping materials and, of course, paper and packaging materials as well. Our business has two operating divisions—the Hardwood Forests Division and the Softwood Plantations Division. Both of our operating divisions are independently certified to the Australian Forestry Standards or Responsible Wood standard and we are also certified to ISO 14001 Environmental Management standard.

Dean Anderson and I appear here today as senior representatives on behalf of those two operating divisions. We are operational managers with expertise that aligns to the broad terms of the inquiry. I am appearing in my capacity as the senior manager of planning. With the Hardwood Forests Division, I oversee the management of the forest management system and strategic, tactical and operational planning. My team includes a range of forestry specialists, forest planners, 14 ecologists and over 30 forest technicians who undertake our field surveys and monitoring. Dean Anderson is appearing in his capacity as the regional manager of snowy for the Softwood Plantations Division. The Snowy region manages plantations around Tumut, Tumbarumba and Bombala, which is the division's largest production area and also the region most significantly impacted by the 2019 to 2020 wildfires. We are pleased, on behalf of Forestry Corporation, to support the inquiry and we trust that we can provide some useful insights for the panel.

**The Hon. MICK VEITCH:** Thanks, gentlemen, for your attendance today. Essentially I have got a few questions that arise from the evidence that was heard earlier, I think back in September, at this inquiry—a sort of right of reply in some cases and in other cases just to clarify what people may have been talking about. The first thing is we heard evidence from Professor Gibbons about the Forest Stewardship Council, or FSC, certification. They say it is the gold standard and Forest Corp do not have FSC certification and should. Can you explain to us, is that correct that you do not have FSC and what would it actually mean to the operations of Forest Corp?

**Mr KEARNEY:** As I said in the opening statement, we have certification under the Australian Forestry Standard or the Responsible Wood standard. It is quite similar in many respects to the FSC standard. It is an Australian standard, though. That is the standard that most of our customers require. It is an internationally recognised standard under the Programme for the Endorsement of Forest Certification international certification

scheme. It is the international forestry standards. It is a group of standards from all over the world. We are certified to that standard. We also meet ISO 14001—that is the Environmental Management standard. They are both really robust processes. We are subject to external independent auditing to achieve those standards. It achieves what it needs to in the marketplace. In terms of whether FSC is the gold standard or not, I do not think I will venture a specific opinion on that, but we have our standard that we apply and I believe it is a robust standard.

**The Hon. MICK VEITCH:** What is the difference between the FSC that Professor Gibbons was talking about—and others, to be fair—and the ISO certification you have and the standards that you are currently complying with?

**Mr KEARNEY:** It is difficult to give a concise answer to forensically say what the differences are. I would probably frame it up in that they are largely similar in the aspects that they look at as a standard. They operate differently. Fundamentally, the FSC standard arose in Europe and the Australian Forestry Standard arose in Australia, around about the same time from my recollection. They have a lot more similarities than differences.

**The Hon. MICK VEITCH:** I will go straight to the weeds question because I am the guy who asks all about weeds in this building these days. We did explore, though, a serious issue—that is, the weed growth as a contributing factor to fuel load in the case of forest fire. Of course, I come from Tumut and so, as you drive around those forests now, you see one of the first things that grow back is blackberries. What are we doing to control the woody weeds and the undergrowth of primarily our softwood forests, Mr Anderson, but also the hardwood plantations as well?

**Mr ANDERSON:** If I could focus on the softwood to start with—yes, weeds are an issue for numerous things. We have actually increased our funding for spraying the weeds along the firebreaks. One thing we have been doing over time is certainly getting on top of what is on our boundaries to make sure it is not spreading into our neighbours. We worked on the fences. We are now coming back where we are pushing it back into the plantation. The other one is, with the amount of bare ground we have got post the Dunns Road fire, we are putting in holding sprays. So rather than just wait and spray prior to planting, we are spraying early and spraying a couple more times so that we can really try and put the blackberry back in its place.

The other thing is we have some trials in place where we were spraying under canopy after a first thinning. One of the issues is finding a herbicide that can control the blackberry that will not kill the trees. So we can use really good knockdowns during those pre-plant operations. What we trialled was using those knockdowns but with a spraying objective of keeping it below the crown of the pine trees so that after thinning we have got those open-out rows. We can use machines like skidders or forwarders with spray units on the back so we are spraying underneath.

Unfortunately, those trials got burnt. But what we observed was that it really was good success, so we have actually budgeted to do 500 hectares this year. So we thin just about 1,000. We are picking the worst 500 and going to spray those. What we are expecting is that, with the continual crown overstorey with the spray underneath, by the time we get to the clearfell there will be less blackberry. There will still be blackberry but there will be less, which will give us more of a chance with those knockdowns when we re-establish. That is where we are trying to get to, staying focused on the weeds, not giving up—we certainly understand that—and spraying a lot more kilometres of road to keep those breaks open.

**The Hon. MICK VEITCH:** I did say hardwood plantation but I actually meant hardwood forest. What are we doing there?

**Mr KEARNEY:** There are a number of weed issues in a hardwood forest. They are endemic in the landscape in lots of parts of New South Wales and we typically work with other government agencies about being strategic about weed control. But there are a number of really challenging circumstances there where you have weeds such as camphor laurel or lantana that are readily spread by native animals. It is just a matter of continuing to try and knock back where we can. In our hardwood plantation operations, we do undertake to do some eradication of camphor laurel, as Mr Anderson just outlined, regarding spray during the harvesting and replanting process. We are also currently undertaking, with camphor laurel, some trials of using that for biomass generation or even selling short logs, if they are viable, of camphor laurel, which is a particularly nasty weed in the north of the State. But I have to acknowledge that weeds are a continual challenge and, as I said, the vectors that spread them are often natural causes so it is a difficult and continuing challenge for our organisation.

**The Hon. MICK VEITCH:** Do we have a handle on how much this costs Forest Corp annually, both in actual expenditure but also lost productivity or productivity constraints?

**Mr ANDERSON:** We could take that on notice. But in terms of the productivity, that was what we were trying to gain from those trials. We have been set back and will be able to give you a more definitive answer on

that. Weeds are competing for moisture, so you would expect there would be some tree growth lost. But I cannot give you a definitive figure at the moment.

**The Hon. MICK VEITCH:** In one of the other hearings that I have been involved in, there was discussion around—people dismiss weeds as a part of operation and a cost that you have to incur, but in fact it is a more than \$1 billion cost on the State's productivity every year. If you had a billion-dollar loss every year for something somewhere else, the Government's attention would be really focused on why. But this just seems to be an accepted cost of practice, which I do not accept. Hence I keep asking about this.

**Mr ANDERSON:** I would have to agree with you. Just from the early training back in university days when we were looking at plantation establishment, all the cost analysis showed investment in weed control paid more than fertiliser and a lot of other productivity gains. Staying on top of the weeds is important. It is just how you do it without killing the trees that is always the problem. In the native aspect, we also have to be super careful about what other species you can harm when you are treating weeds. It does get really tricky in that landscape.

**The Hon. MICK VEITCH:** It can be quite technical in its application, yes. Thank you for that. I would be keen to see what that information looks like if you take it on notice. The other thing that was raised in the previous hearing days was silviculture practice and the need for—and I understand that silviculture is pretty broad. It is not just a defined thing. But there needs to be a greater focus on silviculture practice in our forests. Have you had a chance to look at the transcripts from the two previous hearing days to see what issues people have been raising?

**Mr KEARNEY:** No, I have not, but I am happy to talk about our silviculture generally if that would be helpful.

**The Hon. MICK VEITCH:** If you could, yes.

**Mr KEARNEY:** When we talk about native forest silviculture in particular, what we do when we go to harvest, which is where we practice silviculture, is for each area that we are planning to harvest we go through a thorough planning process where an assessment is made about the state of that forest. We look at the forest type that it is. That is critical because most forests will have a unique adaptation or an evolutionary mechanism to regenerate, so we have to understand what sort of forest we are working with. We have to understand the structure of that forest in terms of its age-class structure. It may have a single age class. It may be multiple age classes of trees in one forest. We have to have an assessment of that. Then our silviculture options are also set through the Coastal IFOA, our regulation. We put those two together and come up with what is the best way to treat that forest so that we can sustainably harvest timber but we can also regrow it and ensure that, if there is growing timber that can be used in the future, it is retained on site as well. There is a thorough planning process.

Those plans are produced for every single operation. Every harvesting crew that is brought in is inducted into that plan and it is explained to them what our expectation is and then we will undertake monitoring to make sure that silviculture is appropriate. Silviculture can be very different for very different forest types. Some, such as the ash forests in the south, require more disturbance in order to regenerate. We have seen, after the fires in particular, the adaptive mechanism for those species seeing great flashes of regeneration where the fire has been through. Other species—you can undertake selective harvesting and just take out a selection of the more mature trees that have good timber products in them while retaining other trees that are at what we call advanced growth, so they are not yet fully commercially mature but they will be in, say, 10 to 15 years' time. We need to shepherd those through so they are available for harvest at that time but always with an eye to regenerate the forest and to leave it in at least as good a state as it is in and to ensure that we are working with those natural adaptive ecological mechanisms that those forests have.

**The Hon. MICK VEITCH:** I want to explore capacity to meet our supply contracts and then planning beyond that. Probably Mr Anderson first around the softwood plantation post the Dunns Road fire particularly down our way—it is down around Tumut and Tumbarumba. A substantial amount of that plantation was lost. I understand now there has been a process to harvest as quickly as possible before the timber stands are damaged any further. Is it mildew, or blue steel?

**Mr ANDERSON:** Blue stain.

**The Hon. MICK VEITCH:** Blue stain. And then the replantation process—first of all, clearly there is a plan to replant the radiata pine, the softwood. Are we able to do that over a period of time in a structured way so that, in harvest time in 30 years or so, it is not all coming on at the same time? The first thing is: Are we able to do this? The second thing is: Are we structuring it so that it does not all mature at the same time?

**Mr ANDERSON:** We did have a plan to replant by 2027. We have had a couple of good years so we are actually ahead of the game. The other way that we are ahead of the game is we have been monitoring the forest



and anything that had good green crown—so it might have had a fire underneath. Radiata normally just hates fire. It normally curls its toes up and drops dead. But there were big efforts on those days and there were some stands where the fire went underneath but it did not go as high. Some of those stands we have been able to hang onto. With that and then being ahead with the planting—because last year we were 99.3 per cent survival, which is unheard of. It was a good year. With success there in terms of having more seedlings and retaining things, we look like we will be 2025 or 2026—we will be back on normal program.

Yes, that creates a bit of an age-class lump. But what we will do in consultation with the customers is try and stagger the thinning and the clearfell. You can always hang on a bit longer but it is hard to push forward. Therefore, in 30 years rather than take them all out at 30, we will take some out at 30, some at 35 or 36. We will look to smooth out over time. We will do something similar with the thinnings as well. There may be some stands that we may even select to early clearfell to make sure we meet pulp commitments, take out some of that blip in the age-class profile and flatten the curve, so to speak. Sounds like COVID, doesn't it? But we might do that by generating a bit of pulp early and then replanting it. Then that will stagger the age classes to bring the sawlog more smoothly later on in time.

**The Hon. MICK VEITCH:** But we are able to meet our supply contracts going forward.

**Mr ANDERSON:** The current supply contracts, the sawmills in Tumut-Tumbarumba are basically halved because of that immediate impact of the fire. We cannot make the trees 30 years old straightaway. We have renegotiated with the sawmills and re-signed 10-year agreements and the mills are going well. In fact, both mills are struggling for staff at the moment.

**The Hon. MICK VEITCH:** Yeah, because people took it and moved. Okay. It is essentially the same series of questions for the hardwood.

**Mr ANDERSON:** Sure.

**The Hon. MICK VEITCH:** Both forest and plantation. We are able to meet our supply contracts going forward from hardwood?

**Mr KEARNEY:** Yes, we are. So, I guess, if you would like me to expand on how we look at sustainable yields?

**The Hon. MICK VEITCH:** Yes.

**Mr KEARNEY:** We have a modelling system that looks 100 years into the future. So, how we set our sustainable yield is to have a plan for a 100-year period. There are a couple of principles in that. The first one is that we have a harvest now that is sustainable across that 100-year period and the other principle is that the growing stock that is present in the forest at the start is present in the forest at the end. So, we are not just whittling away the growing stock until there is nothing left; it is perpetual sustainable yield. Within that there is a range of factors that go into that modelling but, effectively, we measure plots in the forest. Those plots are put into a simulator that grows them and simulates harvesting. They have growth models and that gives us an answer that looks at what is that sustainable yield from the forest?

We undertook work in the immediate aftermath of the fires to work out what we think the impact of the fires is likely to be. It was informed by the best available information we had and there have been some reductions in supplies forecast from that. But we have published that work and that is available. I am happy to give the Committee that work.

**The Hon. MICK VEITCH:** That would be good, thank you. The second part of the hardwood discussion, though, is around hardwood plantation. Could you advise the Committee what work is being done to increase the hardwood plantation in New South Wales?

**Mr KEARNEY:** Well, I can talk about how we forecast yield from our hardwood plantation estate. We have around 35,000 hectares of hardwood plantation. What we are undertaking—the harvesting of that, at the same time we harvest our native forests as such. The two resources on the North Coast where our hardwood plantations are, the native forest and the plantation forest are modelled in one model. We run a plantation modelling process first that aims to maximise the potential yield of that estate over time. So we have an estate that is characterised by early planting in the 1960s and 1970s, most of which was on either degraded forest or cleared farmland. Then we have a plantation tranche that was planted after the Regional Forest Agreement with funding from the Government at the time. Then we have a few other epochs of smaller plantation establishment. There is no current expansion that we are undertaking in that space at this stage, but we are managing that estate that we do have to maximise the long-term sustainable yield from that plantation estate of high quality sawlogs, that is to say.

**The CHAIR:** You may not be able to answer this, but there were some concerns raised by Timber NSW around wood supply agreements. You potentially may take this on notice. They raised concerns that Boral seemed to have preferential clauses in their wood supply agreements dating back almost 17 years. Do you have any view or vision of those wood supply agreements in setting them up at all?

**Mr KEARNEY:** Not in setting them up. Obviously, those clauses originated in 2003. That was before I had any visibility on that so I would have to take on notice where that originated from.

**The CHAIR:** Yes. If you could perhaps take the whole premise of their concerns on notice and come back to us and get some comments as to why those species preference clauses existed.

**Mr KEARNEY:** Sure. Yeah. I cannot tell you about exactly why they have been inserted in contracts or anything because I was not privy to that; but, look, broadly speaking the original contracts that Boral purchased—and it is no longer Boral because Boral has sold those contracts.

**The CHAIR:** They have indicated they are getting out of timber, essentially.

**Mr KEARNEY:** Well, they have sold those contracts so it is a different company that has those contracts now. But the original contracts were, again, not owned by Boral but came from two other family companies that sold those contracts to Boral many, many years ago. The supply area of those contracts reflected the species requirements. That is my understanding. In terms of how or where those particular clauses came from or through what process, I am unaware of that. I can take that on notice.

**The CHAIR:** Yes. That would be good. Can we just touch on the firefighting aspect? You mentioned that you have your own firefighting unit and all your workers are trained. How do you coordinate with the other firefighting agencies? Obviously, when a fire starts in either a softwood or hardwood plantation, at what point do you call in the Rural Fire Service? And also to you, Deputy Commissioner, at what point do you step in on the National Park estate? During the last fires up on the Mid North Coast we heard examples or stories of where perhaps you should have been called in a bit earlier, but the other agency said, "No, no, no. I've got it under control", when invariably they did not. I invite you to give commentary around when each agency steps in and helps.

**The Hon. MICK VEITCH:** It is also complicated by—on Dunns Road, Hume's had their own private softwood arrangement.

**Deputy Commissioner McKECHNIE:** I might, if the Committee is happy, speak first.

**The CHAIR:** Yes.

**Deputy Commissioner McKECHNIE:** Each of the fire authorities, being the Forestry Corporation, National Parks along with RFS and Fire and Rescue NSW, has a responsibility in regard to the response to fires, particularly Forest Corp and National Parks on their lands that they manage. Both Forest Corp and National Parks have a duty to report to the jurisdictional fire service—whether that is Fire and Rescue NSW or RFS. I suppose, notably, the Forest Corp land is obviously in rural fire district. So those relationships are going to allow that actually to start a lot earlier than the response. We have what we call coordinated firefighting arrangements within New South Wales. The local bushfire management committees that are made up of representatives of not only those agencies but others—local government, Aboriginal land councils and others—are I suppose already working through from bushfire risk management plans, what mitigation work should be done, how they should be prioritised. So we are—what would you say?—already in communication and at the table beforehand. If there is a report of fire, both Parks and Forests have a duty to respond to that.

They also have a duty, as I was saying, to keep us informed as to what they are doing about that fire, what their strategies and tactics are. But ultimately, if the RFS commissioner forms the view that they are not dealing with that appropriately, we have the ability as a jurisdictional fire service to step in and take charge. Probably the most notable power in that regard is if the resources in the local area are not likely to be sufficient to combat the fire or the fires, there is a declaration under section 44 of the Rural Fires Act where the commissioner will take charge and appoint an incident controller. That is, I suppose, the technical around that and then the application of that across the State is quite practical. By far the majority of incidents that we get are reported through the triple-0 process, so Fire and Rescue NSW or RFS are the first alerted. Organisations such as Forest Corp have a strong fire tower observation perspective, which is resourced at certain times and is able to report back in for them to respond and, again, inform the fire service. I think that gives you an overview of it and I will take questions.

**Mr ANDERSON:** Chair, if I could use that summer and the Dunns Road fire as an example of that—how we operate together. Leading into Christmas, the weather was terrible. You could see things were bad, so the district bushfire committee and the local emergency management committee we actually called a pre-emptive

meeting with the RFS, the police, National Parks and the town fire brigade. We met and we actually were developing an ignition prevention plan. Our biggest concern was idiots out there—you know, someone starting a fire—so we were already working cooperatively about: How do we get the message out there? How do we increase the observation to try and stop ignition? Then as the days progressed and we landed at the fateful day, we have got our towers up. Our towers are reporting. Any time we get a fire we log it into the incident response management system called ICON. It is an RFS-run system, so straightaway it is reported through to the RFS. They are aware of it.

Initially we call it a class one fire, which is just us on site looking after our things. Class two means we are getting help from someone else. On that morning National Parks had a fire in Kosciuszko, we gave them our helicopter. Even though it is something we engage and we have contracted over the summer, it is there to protect the plantations, we use it to stop any fire in the landscape. They were the first to have a fire, so we sent our helicopter in that direction. As you can see, it is a continual cooperative approach. We are talking to each other constantly, moving resources and prioritising, as per the Act, life and property. Does that answer your question?

**The CHAIR:** Yes, that is good. I will go back to some of the questions Mr Veitch had about the expansion of the plantation. I note that we are not doing any work expanding the native hardwood, but a lot of the submissions that we have had have stressed the need to expand the softwood plantation. Some of those submissions have come from people who want all native hardwood stopped and taken over by softwood, but there is also a call from the industry to expand our softwood plantation. Mr Anderson, what work is being done to expand that? I know you are centred around the Snowy region, but you might have some vision of what is happening elsewhere as well.

**Mr ANDERSON:** The immediate focus has been re-establishing the land that we have got. But looking further down the track, expansion where someone goes and buys large chunks of land is most probably off the cards. Land prices have gone through the roof. It makes it really difficult to be able to do a justification to go and purchase land and put in a plantation from scratch and wait the 30 years. When we look to buy land, we use the discount cash flow. We look at that 30 years and discount all that way back. If you are using 7 per cent, that certainly caps what you may pay for land now while you wait those 30 years.

Where other people who are competing for the land—the farmer—they are operating most probably similar to people in Sydney buying houses, but buying it under that expectation that in 10 years the land will double and they will have that option of selling the land. Once we put it under a plantation, as Mr Kearney pointed out with our modelling, we keep talking 100 years. So we never think about selling that land down the track. We never get to realise that doubling of the land every 10 years.

Where we most probably need to move is encouraging farmers to think about them growing trees. I do not think it works people growing trees on their land, but them taking some ownership and seeing it as part of their whole farm mix—and the industry can assist there through offtake agreements. If they are looking for more resource, they can certainly put stuff forward about how they can make people feel comfortable that there will be a market down the track.

**Mr JUSTIN FIELD:** My questions are almost exclusively for you, Mr Kearney. I am interested in the hardwood sector. Have you seen the NRC's report that was leaked last week on the Coastal IFOA operations post the 2019-20 bushfires?

**Mr KEARNEY:** I am advised that that is a Cabinet-in-confidence document, and it is not something I am prepared to comment on on that basis.

**Mr JUSTIN FIELD:** I am not asking you to comment on it necessarily, I am just asking if you have seen it. It does speak to the future of this sector and its viability and sustainability in time. I am trying to understand if you have seen it.

**Mr KEARNEY:** Again, that is part of a Cabinet process that is Cabinet-in-confidence. I am not prepared to offer comments on that.

**Mr JUSTIN FIELD:** Fine. Has Forestry Corporation provided comment on the contents of it to government?

**Mr KEARNEY:** Again, it is a Cabinet-in-confidence process. It is not something for me to comment on.

**Mr JUSTIN FIELD:** Okay, no worries. It identifies areas currently being harvested in New South Wales, particularly on the South Coast but across the entire coast, as either representing an extreme or high risk of environmental damage—potentially irreparable damage—as a result of harvesting under the CIFOA

prescriptions. Has Forestry Corporation changed pre-emptively any of its practices at those sites in line with the recommendations in this report?

**Mr KEARNEY:** I cannot talk about that report specifically. I can talk about what we are doing and I can talk about the rationale and the thought process we have been through in terms of what we are doing in fire-affected landscapes. If you would like me to provide some insight into what we are doing and how we have arrived at those decisions and what we are doing to add additional environmental safeguards into fire-affected landscapes where we are harvesting, I can do that.

**Mr JUSTIN FIELD:** I think some of that probably has been canvassed previously in public debate and discussions, plus you have published that information on your website.

**Mr KEARNEY:** Yes.

**Mr JUSTIN FIELD:** I am aware of that. This report is subsequent to those voluntary conditions that you have implemented once Forestry Corporation walked away from the site-specific conditions agreed with the EPA. I am trying to understand whether or not any of these additional prescriptions have been implemented pre-emptively by Forestry Corporation, particularly in those extreme and high risk management areas that I know you are currently operating in.

**Mr KEARNEY:** Again, your question is asking me to comment on the subject of a report that is Cabinet-in-confidence, and I am not going to do that. I can talk to how we are undertaking our harvesting in fire-affected landscapes. We have been through a thorough process there to look at all of our obligations. Our obligations stem from the Forestry Act. I read those out in my opening statement. We have to balance all those obligations. They include socio-economic factors, timber supply, environmental controls and sustainable development. We also have obligations under the regional forest agreements to ensure that we are implementing the precautionary principle when we harvest, and we have all the obligations under the Coastal IFOA, of course, and our regulation. We have undertaken a thorough planning process in all of our timber supply to ensure that we are meeting those obligations and that we are applying those conditions voluntarily over and above the Coastal IFOA. There is a range of safeguards at a range of levels. We have additional ecological surveys in place. We have additional soil and water surveys in place. We have additional survey conditions and we have other conditions that rely on those assessments.

**Mr JUSTIN FIELD:** But you would acknowledge that none of those are enforceable by the regulator, the EPA, because they are voluntary, correct?

**Mr KEARNEY:** What is enforceable by the regulator is the Coastal IFOA, and it is a really thorough mechanism that requires a whole suite of—

**Mr JUSTIN FIELD:** If it is thorough, why are you doing additional ones?

**Mr KEARNEY:** We are doing additional ones in response to our assessment of our requirements under the regional forest agreements to apply the precautionary principle. We are undertaking, and have undertaken, a planning process that has taken into account the impacts of the fires, the regeneration and recovery of the forest, and our obligation to ensure that our operations meet the precautionary principle. We are applying additional safeguards on that basis where we believe they are effective in offsetting any impacts and allowing for the recovery of the forest while we continue to meet our other obligations under the Act, which are to supply sustainable timber to the industry.

**Mr JUSTIN FIELD:** This report suggests that the CIFOA is not fit for purpose in its current form, and it also suggests that without these additional prescriptions recommended Forestry Corporation runs the risk of not being compliant with its ecologically sustainable forest management obligations. That is in line with what the EPA said in September last year as well. Why did the corporation refuse to continue to cooperate with site-specific operating conditions with the EPA and instead implement unenforceable voluntary conditions?

**Mr KEARNEY:** Again, I will not make any comment in relation to the report because it is Cabinet-in-confidence.

**Mr JUSTIN FIELD:** Sure.

**Mr KEARNEY:** In terms of our decision-making around how we would apply additional measures, we had been initially in discussions with the EPA about the best way forward. We used site-specific conditions when they were appropriate. So in the immediate aftermath of the fire, there were two major considerations that triggered that. Site-specific conditions sit inside the Coastal IFOA. It is condition 23.4, if I remember correctly. It allows for Forestry Corporation to apply to the EPA for site-specific operating conditions where we cannot meet all the conditions of the Coastal IFOA.

There were two major concerns that we had in the immediate aftermath of the fire. The first was that the ground vegetation had been severely affected by the fires, and therefore soil stability was of concern and we did not think that it was possible to meet the objectives of the Coastal IFOA by applying the standard conditions. The second was a safety concern. Because after the fires there was a range of elevated hazards—particularly from trees falling and crowns collapsing where there had been fire impacts, but also unrevealed burning stump holes in the ground and things of that nature—there was a real safety concern about undertaking our surveys. So the implementation of those full surveys, as described in the Coastal IFOA, was also a concern to us. In that manner, for those two particular triggers, we applied for site-specific conditions under the Coastal IFOA.

As the forest recovered and started to regenerate, those two specific triggers abated, largely, and therefore there was no specific trigger under condition 23.4 of the Coastal IFOA to apply for those site-specific conditions. Again, on that basis we examined all of our obligations and all of our options and determined that the best pathway was to apply those conditions voluntarily. There are some genuine benefits for that. One is that they can be responsive to the condition of the forest recovery. We can tailor them to each region and each operation. We can change them based on new and emerging information. They are something that we can apply and we can assure are fit for purpose.

**Mr JUSTIN FIELD:** But they are unenforceable by the regulator, correct?

**Mr KEARNEY:** They are unenforceable by the EPA but they are enforceable by us. When we write a harvest plan, and we put into that harvest plan that we expect additional buffers, for instance, on the old-growth or the riparian protection zone—

**Mr JUSTIN FIELD:** I understand.

**Mr KEARNEY:** —for the rainforest, those conditions are enforceable by Forestry Corporation and we enforce those on people undertaking the work.

**Mr JUSTIN FIELD:** The EPA's annual report that came out two weeks ago indicated that there are 10 prosecutions underfoot for forestry operations in New South Wales. How many of those are prosecutions against Forestry Corporation?

**Mr KEARNEY:** I have not seen the report and I would probably best take that on notice.

**Mr JUSTIN FIELD:** It is not so much about the report I am referring to; it was just an indicator that these prosecutions are happening. You must have an indication of how many prosecutions are currently occurring by the regulator against Forestry Corporation or its contractors for breaches of either the CIFOA or the site-specific site operating conditions?

**Mr KEARNEY:** I am aware of some issues and I am aware of some prosecutions, but I do not want to mislead or provide a number that is just not correct.

**Mr JUSTIN FIELD:** Sure. I am happy for you to take it on notice.

**Mr KEARNEY:** It is best to take it on notice.

**Mr JUSTIN FIELD:** I was not asking you to comment on the EPA's report, is my indication. That was just how we became aware of it. It was not public knowledge before then. I think people would be surprised because traditionally there have not been a lot of—there have been some fines, but not a lot of prosecutions. I guess the point is that my focus in this inquiry is on sustainability of the hardwood sector—the public native forests. I know you do not want to speak to this report, but it sort of backs up the sustainable yield assessment—a 30 per cent hit on the South Coast—but it also points to a declining supply, particularly of large quality sawlogs on the North Coast into the future. Obviously you have targeted your plantations on the North Coast pretty heavily to maintain supply at the highest level possible since the fires, so that will have an impact over the short to medium term—and potentially the long term—as well. Just as I came into the room you were making a response to Mr Veitch about being able to meet future contracts. Contracts are up in 2023 and 2028. You must be anticipating that this will be a contracting sector into the future, at least into the medium term?

**Mr KEARNEY:** As I said, that is not how I look at it. When my team undertakes strategic planning, we have a 100-year time frame. That is what our modelling period is. We think in 100 years when we think about the level of sustainable supply. Contracts are not made for that entire period. Contracts can come and go and supply levels can change, but fundamentally our plan is to have that long-term sustained yield. As I said, and perhaps if I could elaborate a little, those models are looking at sustainable yield, in terms of the sustainable yield of high-quality logs. That includes high-quality large logs and high-quality small logs.

On the North Coast, what we implement is a sustainable yield not just of high-quality logs but high-quality logs of particular species groups. We want to ensure that we have the same annual supply available

into the future—for 100 years—of high-quality blackbutt, high-quality spotted gum, and of high-quality tallowwood and blue gum. We have a whole range of those requirements within our modelling. We do not envisage a reduction so much as we are planning to have a long-term sustainable yield. In some places we will actually see a potential increase in the yield over time. Where you have impacts of the fires, for instance, that may have reduced yield in the short term, you will find that those have regenerating stands of hardwoods that will be maturing in 50, 60 or 80 years that will actually see a potential increase in the sustainable yield in the long term.

**Mr JUSTIN FIELD:** This report, I assume, is largely based off your figures. On the South Coast it points to at least a 20 per cent projected decline in high-quality small and large logs combined out to about 2064, and only slowly increasing out to 2090, to get back to 2018 regional forest agreement [RFA] levels by the end of the century. You see a large high-quality log decline from about 150,000 tonnes down to almost 100,000 tonnes. That is one-third out, basically out to 2020. It suggests something has got to shift here, right? Those contracts are going to have to change and be reduced for them to be viable for you to deliver on into the future.

**Mr KEARNEY:** Again, you are quoting from a report that I am not going to comment on. We have—

**Mr JUSTIN FIELD:** These would be your figures, though.

**Mr KEARNEY:** I was going say that we have published our own sustainable yield figures. In the immediate aftermath—

**Mr JUSTIN FIELD:** Well, that is even 30 per cent on the South Coast, though. You cannot possibly maintain South Coast contracts at the same levels with a 30 per cent sustainable yield here.

**Mr KEARNEY:** When we set wood supply contracts, we set them to be in line with the long-term sustainable yield, so there will be a reduction.

**Mr JUSTIN FIELD:** But that is my point. With a 30 per cent reduction on the South Coast, this must mean that the sector ultimately has to change. The mills on the South Coast cannot sustain 30 per cent into the future. There is going to have either be a consolidation, a contraction in the sector or a change in the use of these materials. Have you started negotiating, particularly—I know South Coast contracts are currently, I think, just on a rollover basis. North Coast ones, the 2023 ones, have you started renegotiating these contracts with customers?

**Mr KEARNEY:** No, not to my knowledge.

**Mr JUSTIN FIELD:** Is that a decision for Forestry Corporation or is it ultimately a decision bound up in this Cabinet process with this document?

**Mr KEARNEY:** I am not going to comment on that document, but when we make wood supply agreements we always do so in consultation with the Government and the Minister.

**Mr JUSTIN FIELD:** But who would ultimately decide to commence—some of these mills are screaming out. They need some certainty. These contracts expire in 2023; it is obviously getting close. They have got no certainty about these contracts going forward. The force majeure has been in place now for—it will be over two years early next year. It is not about to lift anytime soon, based on the evidence here. When would you reasonably expect to start renegotiating those contracts?

**Mr ANDERSON:** It is probably worthwhile us taking that on notice and responding a bit more in full about time frames.

**Mr JUSTIN FIELD:** Sure. There was an EOI process run by Forestry Corporation a few years ago to look at finding customers, or expressions of interest for customers, for the pulp logs and other offcuts from the public native forestry sector. Has that process recommenced? Are you still looking for customers for those products?

**Mr KEARNEY:** We are in discussions with people who were successful in that process.

**Mr JUSTIN FIELD:** This has been going for a while now. Have you got any sort of time line on when you would be looking at starting to supply that material into the market? What sort of volumes are we talking about?

**Mr KEARNEY:** I am not aware of time lines or volumes. I would have to take it on notice to see if we have those numbers, but I am not aware of any.

**Mr JUSTIN FIELD:** If you could, that would be good. You must have a bit of an idea of the volumes that are available. That process started before the fires. I would be interested to know if there has been a reduction in the amount that you have made available to the market based on the impact of the fires, as well. That would be very useful. Chair, I am happy to hand over or keep going.

**The Hon. MICK VEITCH:** I exhausted my questions at the start.

**The CHAIR:** I have exhausted mine, if you want to keep going.

**Mr JUSTIN FIELD:** Thank you. During the early stages of the fires—there have been some suggestions made in other hearings, and I have seen emails between—sorry, minutes from meetings—where it was suggested Forestry Corporation was asking LLS to provide access to private native forestry to be able to supplement supplies to customers. Can you explain how Forestry Corporation goes about trying to get access for their contractors or to be able to source timber from private native forestry to meet customer needs? How does that process work?

**Mr KEARNEY:** Sure. I cannot speak to those particular emails you are—

**Mr JUSTIN FIELD:** It was minutes from some of the planning meetings post fires.

**Mr KEARNEY:** Yes. I am not specifically aware of those, but I can talk in general. We do not do a lot with private native forestry. And what tends to happen is that if we are undertaking planning in an area, if we happen to have either a conversation with a neighbouring adjoining property or somebody contacts us and says they would like to have timber harvested on their property, we can offer a service. We can look at assisting with the planning process and the marketing process. We offer that. There is a contract model we have that says that we will undertake that work. But it is not something we actively or specifically pursue under normal circumstances. It is just something that happens generally through the happy coincidence that we are operating in an area and are able to leverage off that in order to access other volumes as well from private property and it is something that the private property owner is also keen to undertake.

**Mr JUSTIN FIELD:** The suggestion in these minutes was that Forestry Corporation was seeking access to private native forestry to be able to support supplementing the timbers from public native forests for its customers. So in that instance are you saying to the private landholder, "We can organise for the contractors and we can provide you with someone to sell it to"? Then do you facilitate a direct relationship between them and the mill or do you guys buy it directly off the private landholder and sell it? How does it work?

**Mr ANDERSON:** Given how specific the example is, it might be better if we take it on notice and give your full answer, if that is okay.

**Mr JUSTIN FIELD:** I appreciate that. That would be useful.

**The Hon. PETER POULOS:** Do you have any final comments or observations that you wish to share with the inquiry before we wrap up—any points that have been raised today that need clarifying?

**Mr ANDERSON:** I think the question about us working together, the RFS, National Parks—I have got to stop calling them "townies"—Fire and Rescue, it has been a long cooperation. I first met Mr McKechnie back in the late nineties. I was in Bathurst and he was in Bathurst and we have been cooperating on fires over that whole time period. When he mentioned section 44 and the commissioner appointing incident controllers—I have been one of those. I have been a nominee. And when you become the nominee you know at that point in time you are working for the commissioner and you are working for the people of New South Wales at the highest level.

**Deputy Commissioner McKECHNIE:** I would just reinforce, that longstanding relationship between State Forests—now Forestry Corporation—and the Rural Fire Service has been to the benefit of both agencies during that time and the broader benefit to the communities that they are within, through the local arrangements like our bushfire management committees. I only see that relationship actually strengthening. We are finding more and more ways to actually work together, which may be a little bit hard to believe, given how long the relationship has been standing for, but I suppose we are ultimately always looking for another way to be able do things and I think it serves the community very well.

**The CHAIR:** That concludes our questioning. You have taken some questions on notice so the Committee secretariat will be in touch with you on a time line to get back to us on that. Thank you very much for your time and safe travels back to wherever you are going.

**(The witnesses withdrew.)**

**(Short adjournment)**

**HUGH DURRANT-WHYTE**, Commissioner, Natural Resources Commission, affirmed and examined

**BRYCE WILDE**, Executive Director, Natural Resources Commission, affirmed and examined

**TRACY MACKEY**, Chief Executive Officer, NSW Environmental Protection Authority, affirmed and examined

**DAVID FOWLER**, Executive Director, Regulatory Practice and Environmental Solutions, NSW Environmental Protection Authority, affirmed and examined

**The CHAIR:** Welcome back to our last session for today in the inquiry into the long term sustainability and future of the timber and forest products industry. We now have representatives from the Environmental Protection Authority as well as the Natural Resources Commission. Would anyone like to start with an opening statement?

**Mr WILDE:** Thank you for the opportunity to address you all today. The Natural Resources Commission is an independent body established under the Natural Resources Commission Act with the purpose of establishing a sound evidence base for the properly informed management of natural resources in the social, economic and environmental interests of the State. Being an independent adviser, the commission is not subject to ministerial direction in the formation of its advice. In New South Wales there has been a serious lack of data on the health, condition and productivity of our forest ecosystems and the industries they support.

Both industry and community have called for ready access to credible data on the sustainable use and stewardship of New South Wales forests, whether they be on national parks, State forests, Crown land, Aboriginal land or private land. In response to this, the former Premier engaged the commission in 2019 to oversee a statewide cross-tenure monitoring program in collaboration with New South Wales agencies and independent experts. The program seeks to join up forest science, monitoring and research across government, academia, the private sector and also the community sector. This program aims to deliver, firstly, baselines and then deliver priority and timely information across all tenures that enables effective data-driven decision-making for the future of New South Wales forests and the multiple values they support.

To date, this program has established New South Wales' first landscape-scale, cross-tenure baselines on forest extent, biodiversity, water quantity, carbon and soil health; initiated improvements to mapping fire extent, severity and recovery post-fire; examined risks to coastal forests post the 2019-20 wildfires; delivered the nation's first dedicated plan to monitor cross-tenure regional forest agreements; commenced targeted monitoring on the effectiveness of the Coastal Integrated Forestry Operations Approval; undertaken Aboriginal-led, country-based cultural values assessments; and commenced landscape-scale forest and fauna monitoring with agencies, combining cost-effective, remote-sensing technologies with on-ground monitoring.

This whole-of-government program has invested over \$5 million to date, with nearly 40 project partners, including leading universities and research institutions, New South Wales agencies, Aboriginal groups, citizen scientists groups and private sector scientists. The program has been recognised for conducting the largest and most significant analysis of forest biodiversity in the history of forest management in New South Wales. But there is much more work to be done. The commission also oversees other research programs, including a five-year statewide research program on forest dieback and a three-year koala research program on State forests, and undertakes other forest-related reviews as requested by the Government. Thank you.

**Mr JUSTIN FIELD:** Thank you for your attendance here today. My focus in this inquiry is on the future of logging in the public native forest sector and, to some degree, the private native forestry sector as well. It is difficult to have a discussion about the long-term future of that industry without at least acknowledging the recent report that has come to public attention that was prepared by the Natural Resources Commission about Coastal IFOA operations post the 2019-20 wildfires. I understand you may have difficulty speaking to the contents of it, but I just wanted to thank you for your work in providing that information. I am sure that both the Government and the public are very interested in the contents of it. Ms Mackey, I might go to you in the first instance though. Have you reviewed this report by the NRC?

**Ms MACKEY:** We certainly provide advice and input to the NRC across a range of the work that they do, including that work, and we have seen a copy of that report.

**Mr JUSTIN FIELD:** The NRC report recommended that, given the high risks associated with forest operations in severely fire-affected landscapes, its advice should be given legal standing to best meet the objectives of the Forestry Act and the principles of ecologically sustainable forest management. I guess that leaves open the suggestion, not dissimilar to the one you made in your letter to Regional NSW and Forestry Corporation in September last year, that current logging practices, particularly in those extreme- and high-risk areas, do not meet



the objectives of the Forestry Act and the principles of ecologically sustainable forestry management. Can you comment on that in the first instance?

**Ms MACKEY:** Obviously, the NRC have provided that report to government and it is for government to consider around its policy position. It would not be fit for me to comment about where government might land in terms of that consideration. What I would say is that we think the report is comprehensive. It certainly canvasses the full range of issues that we have certainly been looking at and considering in our own regulatory decision-making since the impact of the 2019-20 fires. We look forward to being able to continue to do more in this place.

**Mr JUSTIN FIELD:** It is now over a year since you wrote that letter to Regional NSW and Forestry Corporation. It was quite extraordinary at the time. The implications were that, if they started to log outside of the site-specific operating conditions, there was a risk that they would be in breach of their obligations under the Act. Do you think that they are in breach of their obligations under the Act?

**Ms MACKEY:** As we have discussed at estimates—and I am happy to go back a bit if that is helpful—we did have the site-specific conditions regime in place for quite some time. It operated for around 12 months. And we certainly took advice from a range of experts, not just in the environment space but also to understand the impact of sustainability on some of the things that we were looking at to ensure that the impact on the forest was mitigated, given the severity of those fires. That was the arrangement we put into place. That was a very helpful arrangement to give Forestry Corp an opportunity to continue to undertake the activities they need to with those heightened considerations around the environmental impacts at the same time. We are certainly, at this point in time with Forestry Corp, reverting to operating under the CIFOA under its usual provisions rather than the site-specific provisions. We continue to monitor very closely the activity and if we do see any noncompliances then we are acting swiftly.

**Mr JUSTIN FIELD:** But are they noncompliances with the CIFOA that you are talking about?

**Ms MACKEY:** Yes.

**Mr JUSTIN FIELD:** At this stage, your annual report pointed to the fact that there were 10 prosecutions, I think, underway at the moment with regards to forestry operations in New South Wales. Are they prosecutions against Forestry Corporation?

**Ms MACKEY:** Yes, they are.

**Mr JUSTIN FIELD:** Can you provide any more information to the Committee about the prosecutions, the nature of them and what particular forests we are talking about here?

**Ms MACKEY:** There are 10 charges across three forests. They relate to Wild Cattle Creek State Forest—and that was the incident that prompted us to issue a stop work order in 2020. That prosecution relates to the felling of a—I am going to get the terminology correct—giant tree. So that is that one. Then there are two other prosecutions: one in relation to Dampier State Forest and the other in relation to Tomerong State Forest. I do not have the details of those two at hand but I am happy to provide that to the Committee.

**Mr JUSTIN FIELD:** Okay. Are there other investigations underway, particularly with regards to South Brooman and Mogo, where I know stop work orders were issued last year?

**Ms MACKEY:** My colleague David Fowler can probably help. We are just going to pull up the current list.

**Mr FOWLER:** So currently under investigation—we have activity in the Conglomerate State Forest, Wild Cattle Creek, South Brooman, Mogo, Lower Bucca, Yambulla and another investigation in South Brooman.

**Mr JUSTIN FIELD:** It would suggest that compliance is not great.

**Ms MACKEY:** I think from our point of view compliance has improved. I am not saying it is where it needs to be, but we have certainly seen some improvement from where we were a couple of years ago. We continue to put in, as we have talked about a number of times, additional resources and a range of extra steps in the way we are regulating to try and make sure that we are seeing things early before there is any further impact. We have also been working fairly closely with Forestry Corp at a senior level and an officer level, looking at and suggesting a range of tools and activities that they can use to ensure compliance and to try and limit the impact to the environment.

**Mr JUSTIN FIELD:** Okay. Currently Forestry Corporation is logging in a number of sites that the NRC report identifies as either extreme or high risk. The high-risk ones that I am particularly familiar with are on the South Coast, including around Shallow Crossing and Mogo. The concerns around the stop work orders there last

year were about the impact on hollow-bearing trees. The NRC report has some pretty striking things to say about the risks. I will quote from it. "While the commission has not been asked to review existing prescriptions, we have been asked to recommend using best available evidence and best-practice approaches to manage forestry operations in fire-affected forests. Available literature and work currently in progress under the Coastal IFOA monitoring program suggests that the existing prescriptions may not be adequate to maintain the hollow resource in the long term following the 2019-20 wildfires." There are so many species that are hollow dependent on the South Coast—across the coast but the South Coast was obviously the worst affected. How are you insuring that impacts on hollow-reliant species are not being caused by Forestry Corporation's current operations in those high-risk areas?

**Ms MACKEY:** It is a very broad question.

**Mr JUSTIN FIELD:** It is kind of specific.

**Ms MACKEY:** As you would well know, the way the CIFOA is constructed, it does not go to us regulating in that way, so we are confined to the construct of that IFOA to be able to regulate against it, which is why we went to the site-specific conditions.

**Mr JUSTIN FIELD:** That is the point I am trying to get to. You implemented site-specific conditions to protect hollows for a particular reason. Forestry Corporation now refuses to operate under those. Are any of their voluntary prescriptions protecting hollow-bearing trees in those forests?

**Ms MACKEY:** We have been quite clear that we have no oversight around their voluntary provisions and part of the reason why we want to be really clear about that is that the site-specific conditions were site by site looking at what the circumstances were, what the species are, what they are seeking to do on that site and what mitigations they are seeking to put in, whereas the voluntary component does not take that same robustness in terms of the site-specific considerations. So it would be difficult for us to indicate whether or not we believe the voluntary components that they have put in place are adequate or not because we took a very different approach when doing site-specific conditions.

**Mr JUSTIN FIELD:** I guess to cut to the chase, regardless of the fact that there is evidence on the table to suggest that the CIFOA prescriptions are not adequate to meet the principles of ecologically sustainable forest management, you are largely powerless to act until the Government makes a decision on what to do about this report and whether the CIFOA should be amended or whether there should be additional prescriptions put in place in fire-affected forests.

**Ms MACKEY:** We will continue to look at all of the available evidence, including the NRC report and taking further legal advice to determine whether there are additional steps we need to take at any point in time. Part of what we are doing at the moment is an alignment. We have done a risk assessment of what were extreme- and high-risk equivalents. The NRC has taken a slightly different approach and come up with some different ones that sit in there so we are currently marrying those two up by going to the sites, looking at them, looking at what the impact is and, as we get that additional information, we will also provide advice to the Government and consider ourselves whether or not there are any additional steps that we need to take.

**Mr JUSTIN FIELD:** Professor Durrant-Whyte, do you think the CIFOA is adequate to be able to ensure that Forestry Corporation operations can meet the requirements of the Act and their principles of ecologically sustainable forest management?

**Professor DURRANT-WHYTE:** I will defer to my colleague Mr Wilde to answer that question.

**Mr JUSTIN FIELD:** Sure.

**Mr WILDE:** The Coastal IFOA is a good example of a move across the world to a shift towards, first, retention-based forestry, second, multi-landscape protections and, third, outcomes-based regulation. In itself it was a significant improvement from what there has been in the past. As with any instrument, when there is new evidence or data that emerges, it is prudent to consider the adequacy and whether or not there could be any changes. But, overall, the Coastal IFOA is aligned with the principles of ESFM.

**Mr JUSTIN FIELD:** Your comment—and I am not attributing it to you personally but just from this report—is that the 2019-20 wildfires have significantly increased the current and future risks associated with harvesting due to the large extent of fires and the significant damage to species and the habitat they are dependent on. The suggestion in this report is that the CIFOA is inadequate to be able to address these broadscale impacts, the site-specific conditions were probably not appropriate to be able to manage those and that the CIFOA needs to have some sort of trigger to be able to be modified to meet a broad impact such as the fires. Am I understanding that analysis correctly?

**Mr WILDE:** Yes.

**Mr JUSTIN FIELD:** Which would suggest that it is time for a review of the CIFOA in the context of the fires and your findings.

**Mr WILDE:** That would be up to the Government to consider.

**Mr JUSTIN FIELD:** Sure.

**The CHAIR:** I have a couple of questions. Mr Wilde, Timber NSW made some comments in its conversation with us about the cross-tenure monitoring program. It was fairly negative about the fact that it had not seen any work being done. I do note that you have since published some reports. I wanted to see whether you wanted to respond to those criticisms. It seemed to say that it was not seeing much being done, the focus was mainly on State forests and you should probably be looking over the fence at national parks and what is happening there as well. I just invite comments from you on those criticisms.

**Mr WILDE:** Thank you. I can understand why different stakeholders are at times frustrated with the pace of work across government. That is understandable, but those claims which were made were mistaken. The Forest Monitoring and Improvement Program has always been a cross-tenure program, with an additional targeted program on the Coastal IFOA. The bulk of the work has been looking at developing monitoring and research on national parks and State forests with a little bit of work also done on Crown land. Private native forestry is something we are looking to move into in the future. Most of the work has been cross tenure. If you look at the work on, for instance, one of our baseline reports was on soil health—organic soil carbon—we looked at the results of soil carbon across national parks, State forests and also all across land.

Unfortunately, it showed that organic carbon in soils has reduced quite considerably since the 1990s. If you look at the work we did on baselines on forest extent, that was national parks, State forests and private land. We found that the forest extent has increased 6 per cent, largely attributed to private land and thickening around the edges. The State forests and national parks forest extent has remained fairly stable. We have done the most exhaustive and comprehensive look over the past 35 years on flora and fauna cross tenure. That work has not yet been published; it is still undergoing technical review. It is the most significant piece of work looking at flora and fauna outcomes over the past 35 years. Again, there are data gaps because unfortunately in the past there has not been consistent long-term monitoring.

I could go on to a variety of programs that we have been doing. The main focus is very much national parks and State forests but when we have been running lidar or when there is available ground monitoring or previous plots, we have used those. For instance, again, for that flora and fauna there were over nearly 11,000 sites that have been looked at historically. So it has been us trying to mine with NSW Environment, Energy and Science, Forest Science in the Department of Primary Industries, the Environment Protection Authority, Local Land Services, Crown Lands, National Parks and Wildlife Service and Aboriginal Affairs, which are all a part of this cross-tenure program. I could talk for hours about it.

**The CHAIR:** Do you think their comments are based on the fact that looking at some of the reports it does not seem like there was engagement with the industry and it was more at a Forestry Corporation level? Do think some of that misunderstanding was because the consultation or the engagement has not trickled below the Forestry Corporation level?

**Mr WILDE:** That would be fair. We ran regional forums to set up the design of this program. In those regional forums, it would be fair to say that the majority of participants were of community and environmental groups, rather than industry. We did reach out to industry but it would be fair to say that the level of engagement with industry has not been what either party would want. Just recently last week I was speaking with the chair of Timber NSW about how we can improve that. Likewise, I have had conversations with the Australian Forest Products Association and we have better dialogue going there. I am confident that in the future the engagement will be better and then the understanding will be there as well.

**The CHAIR:** Okay, good. I just want to pick up on part of your answer. Correct me if I am wrong, you said you are going to start looking into private native forestry. Is that correct?

**Mr WILDE:** More in depth, yes, that is the intent. There has been monitoring, there has been lidar run and a variety of programs, but the majority of the focus has been on national parks and State forests to date. I suppose the next steps would be for the private native forestry codes to be finalised and we would be encouraging the Government to have as part of that a strong monitoring and evaluation program, which would be part of the existing Forest Monitoring and Improvement Program.

**The CHAIR:** I do note that—I think it was in your koala report, which is one of those cross-tenure reports—you spoke about needing to understand the koala response to private native forestry. Obviously, private

native forestry and what we now know as the koala wars of 2019-20—I think private native forestry was a really contentious point in that State Environmental Planning Policy (Koala Habitat Protection) 2021, or koala SEPP. Have you been involved in advising the Government on koala SEPP 2.0?

**Mr WILDE:** No.

**The Hon. MICK VEITCH:** The Chair's opening question leads to the obvious question: Was there anything else in the testimonies or submissions that we have received to date that you think either agency needs to respond to? Because this is your right of reply, essentially.

**Mr WILDE:** The only other point was that also in that submission made by Timber NSW they mistakenly characterised the funding arrangement and the inception of the Forestry Monitoring and Improvement Program. It was a program that industry was calling for as well as green groups. The Department of Primary Industries did the initial work in developing the business case—not just the initial work, they did the business case. Then it was a decision of government that the Natural Resources Commission would independently oversee it to provide that whole-of-government cross-tenure perspective. Within that, DPI Forest Science have a significant and major contribution, which has been ongoing. But we are overseeing it. So there was a slight mischaracterisation of the role of the NRC in that body of work.

**The CHAIR:** Can I just follow up on one thing? You have given a fairly good description of how the cross-tenure monitoring covered both State forests and national parks. Do you have a breakdown of how much was spent in terms of monitoring of State forests versus national parks? Are you able to accurately divide that up and give us a breakdown, perhaps on notice?

**Mr WILDE:** On notice, we can come back to you on that.

**The CHAIR:** Thank you.

**The Hon. MICK VEITCH:** Did the EPA have anything that has either been raised in written submissions or at the hearings that you would like to respond to, rebut or clarify?

**Ms MACKEY:** Not that I am aware, but I have not seen all of the testimony that has been provided, particularly from today. At this stage there is nothing.

**The Hon. MICK VEITCH:** Okay, thank you. I just have a quick question to the NRC. In your opening statement you were talking about the number of reviews—so the forest fire diversity and I think you said "other forest-related reviews". I have a bit of an interest in weeds—

**The CHAIR:** No-one is shocked.

**The Hon. MICK VEITCH:** —and the impact of weeds on all our forests, including softwood and hardwood. Have you done any work around the impacts of weeds on our forests?

**Mr WILDE:** The former Minister for Primary Industries engaged the Natural Resources Commission to do a statewide review into weeds in 2014. We have had a series of regional forums that engaged a variety of experts and we also commissioned an economic study into the impact of weeds. In 2014 dollars we found that the impact of weeds on the New South Wales economy was \$1.8 billion, on average, which I know is an issue close to you. Most of those costs were driven by agriculture. We also looked at the cost borne by public land managers and we looked into issues of how much the expenditure was for national parks and State forests at the time. There is a significant cost on all public land managers but the majority of the impost is on private landholders and farmers.

**The Hon. MICK VEITCH:** One of the issues with weeds and weed growth is that it contributes to the fuel load for fires in our forests. When you did your forest fire diversity review, did the scope of that review include the capacity to look at how much weeds contribute to our fire fuel load?

**Mr WILDE:** No. We have not done a review into forest fire diversity so I am not certain if I am understanding.

**The Hon. MICK VEITCH:** Okay, sorry.

**Mr WILDE:** We have provided funding through the program to the Environment, Energy and Science division to upgrade their forest ESFM and the recovery mapping so we have given support for that. We have also done undertakings commissioned by the University of Wollongong to look into climate and bushfire risks across the Coastal IFOA region, both in national parks and State forests. But none of that work has looked into the specifics of the contribution or otherwise of weeds to forest fires.

**Mr JUSTIN FIELD:** Ms Mackey, I would not mind turning our attention to PNF, if we could. Do you have any idea how much timber came out of the PNF sector in the last financial year?

**Ms MACKEY:** We do not have that data.

**Mr JUSTIN FIELD:** We have been talking about this for a while now and there seems to be no oversight really by government yet as to the areas being harvested or the volumes being taken. Last time we spoke in budget estimates you indicated that you recently received a pile of information from LLS after some time chasing it, which you were digesting to try to get a handle on that. Do you have any idea when you will know the sorts of volumes we are talking about?

**Ms MACKEY:** I might get Mr Fowler to talk to what data we do have that was provided in that provision of information.

**Mr FOWLER:** The information that we have received relates to PNF approvals that have been issued and are in force, if you like—some 3,500 approvals. We have also obtained limited information about reporting from landholders under the provisions of those approvals, but that information is limited. We have taken that information alongside information we hold in relation to environmental risks associated with those particular properties and also looked at property details and active PNF properties using satellite monitoring data over the last period of time to see where forestry activities occurred on those properties. We have now contacted all—in the order of 3,500—PNF approval holders, effectively ensuring that they understand the EPA's role as the regulator under those PNF approvals and also drawing to their attention the obligations regarding reporting to government on PNF activity and volumes of timber being extracted under those approvals. In addition to that, we have looked at prioritising those sites based on those environmental factors and most recent logging activity. They are now falling into our ongoing regulatory oversight—our inspection program, if you like.

**Mr JUSTIN FIELD:** How many people do you have working in this space?

**Ms MACKEY:** We do not have a dedicated team that does public or private forestry. The way we do it is split across our operations team, so we can bring people in as required from different parts of the State and they are supported by Mr Fowler's area, who provide technical expertise. We also have a policy area that provides advice and expertise and, of course, the legal team as well.

**Mr JUSTIN FIELD:** So it is fair to say that up until very recently no-one in government was really enforcing the reporting obligations on private native forestry approval holders—or since the changeover in 2018.

**Ms MACKEY:** I probably do not quite agree with the characterisation of "up until". There is still significant reporting that is outstanding that we certainly do not have visibility of. That was partly—it was not the only reason but it was part of what prompted us to write to around 3,500 landholders who hold those approvals according to the data to, as Mr Fowler says, remind them of their responsibilities in this space and to try to be proactive around them understanding that the reporting is an important part as they undertake any of these activities.

**Mr JUSTIN FIELD:** Mr Wilde, through the work that you do through the forest monitoring program, lidar and other imagery that you might have, do you have any insight into how large the harvesting out of private native forestry sector is in New South Wales?

**Mr WILDE:** All I can go on are the historical figures from ABARES, which is 2018-2019. According to their figures, it is approximately just under 20 per cent of the total native hardwood take, which is approximately about 180,000 cubic metres.

**Mr JUSTIN FIELD:** This is based at the mill end, right? That is the reporting that comes back from the mill end?

**Mr WILDE:** That is all I am aware of, yes.

**Mr JUSTIN FIELD:** Ms Mackey, I would like to talk about biomass. We are talking about the future of the timber industry. The Department of Primary Industries (Regional NSW) was here this morning. They see an opportunity here for biomass to improve the economics of the timber sector generally, whether it be on public or private land. There is this proposal in the Hunter Valley to change the Redbank Power Station from being a coal tailings-fired power station to a biomass power station, with the majority of that biomass to be supplied through native forest biomaterials. I know that you are well aware of that. A Department of Primary Industries official, Dr Annette Cowie, provided evidence to the Land and Environment Court proceedings and provided expert testimony about the proposal. She quite explicitly countered some of the information provided by the EPA in their submission to the project. I just wanted to get some clarity around how the Eligible Waste Fuels Guidelines

apply to native forest biomaterials with regard to the burning of them for electricity, because it seems it is contentious.

**Ms MACKEY:** What I think is not contentious is that it is very clear that the EPA is the legally responsible authority for determining these things. So, despite any credentials of somebody who might be appearing in the Land and Environment Court, regardless of their day-to-day employment, unless they work for the EPA that is not their role. I have already previously said that we do not agree that it was appropriate for someone who is not from the EPA to purport to indicate where the EPA should sit on any particular issue. In terms of the details, I am probably going to hand over to Mr Fowler in regard to that.

**Mr FOWLER:** So, really, under the current provisions, obviously the legislation does not allow logging of native forests to produce wood for the purpose of electricity generation wholly and solely, and the waste hierarchy effectively applies also in that a higher order alternative use is considered before use of that material in electricity generation. Really, it is around using material that is not fit for an alternate purpose or a higher order purpose.

**Mr JUSTIN FIELD:** That is the key point: How do we determine the higher order process? Because it is pretty clear from both the evidence provided this morning and from Dr Cowie's evidence that the suggestion from the DPI is that using that material for electricity production, where it is offsetting other fossil fuels for electricity production, is a higher order use. Who sets the higher order use provisions? Are they set down in regulations? Is it subjective? How do you weigh it up?

**Mr FOWLER:** That is very much set out in guidelines that we develop and we are currently in the process of updating those to give that clarity around that hierarchy and that higher order use, so those thresholds will be clear.

**Ms MACKEY:** And we do expect those to be finalised in a matter of weeks.

**Mr JUSTIN FIELD:** At the moment would it be fair to say they are not quite clear?

**Ms MACKEY:** I think what we are really conscious of in this space is, with emerging technologies and the movement of renewable energies into the space, it has certainly raised a number of questions, which is why we are going through the process of updating the guidelines.

**Mr JUSTIN FIELD:** There is concern that this could be a real pull factor for ongoing logging of forests. Even though it is not the primary use, it can create an economic incentive both on public land and private land. We heard this morning that the Forestry Corporation is currently in negotiations with possible buyers of this material. We have the DPI *North Coast Residues* report forecasting the availability of a certain amount, Forestry Corporation negotiating with contractors, and EPA reviewing the regulatory framework and suggesting this might not be the higher order use. From our perspective, trying to understand the future of this industry and how it is going to operate and considering the implications of this report, how do we do that? Who holds sway here?

**Ms MACKEY:** Certainly, when the guidelines are finalised I think that will be helpful for the Committee in terms of providing that clarity, given the emergence of different approaches. We also, together with the Department of Planning, meet with proponents of these types of proposals to work through in quite a lot of detail, before anything is submitted, around the technology being proposed and consider a range of issues such as whether or not the feedstock available in the locality meets the current guidelines and whether or not it will meet the guidelines into the future. I think with that particular proposal in Redbank, we have asked for additional information on more than one occasion to try and ascertain where the intention is in terms of feedstock within the local vicinity, where that would be coming from, not just once it got started but certainly in the out years.

**Mr JUSTIN FIELD:** Reporting is something that we have raised in the discussion here today. We have had discussions before about reporting on biomass provided to the currently exempt electricity generators on the North Coast. Will those regulations, when they are finalised, have clear reporting requirements so that the community and government agencies can understand where the feedstock is actually coming from for these projects?

**Ms MACKEY:** We have certainly heard loud and clear that people want greater transparency around where the product is coming from. We are certainly looking at that as one of the issues as we update the guidelines. As you are aware, we did seek to release and be as transparent as possible around that operator in the far north of the State; however, the NSW Civil and Administrative Tribunal determined that we were unable to release all of the information that we sought to.

**Mr JUSTIN FIELD:** Unable or were not required to? You are not restricted from providing that information, though, under the contracts or agreements with the user?

**Ms MACKEY:** I could get you the detail on notice, but the decision was around us not being able to release it on the grounds of being commercial-in-confidence.

**Mr JUSTIN FIELD:** But you were collecting it. The EPA knows where it is coming from; correct?

**Ms MACKEY:** We sought it from that particular operator.

**Mr JUSTIN FIELD:** Would I be wrong in saying they possibly were not complying with their conditions at the time? Might that be the other way to put it?

**Ms MACKEY:** We have done a complete audit of that particular operator around all aspects of their operation and we worked through with them areas of noncompliance to get them into the compliance space.

**Mr JUSTIN FIELD:** I meant to ask before, Ms Mackey, what is the status of those 10 prosecutions at the moment?

**Ms MACKEY:** I am aware on the Wild Cattle Creek ones, I believe that Forestry Corporation has pleaded guilty, so we are scheduled for a hearing, I believe—I thought it was imminent—very early December. On the other two I would have to get you an update.

**Mr JUSTIN FIELD:** I appreciate that. Mr Wilde, earlier you made mention of gains in forest cover or forest extent and you were indicating that on private land there had been gains observed of 6 per cent or 8 per cent.

**Mr WILDE:** Since 1990.

**Mr JUSTIN FIELD:** Since 1990. From my understanding of it, that runs a bit counter to the SLATS information that suggested quite a substantial loss of woody vegetation. Can you explain how those two data sets might interact?

**Mr WILDE:** Certainly. What I was referring to is in the RFA regions, so it excludes the Western Division. So that is the short answer.

**Mr JUSTIN FIELD:** That is probably the entire answer, to a degree. What is the resolution here though? There is a forest, there is a forest, there is a forest, right? For the National Carbon Accounting System I think 20 per cent indicates a forest. What sort of resolution do you go down to in order to determine the density and the biodiversity values of that? What do you mean by a 6 per cent increase in extent?

**Mr WILDE:** I will take that on notice.

**Mr JUSTIN FIELD:** Okay. But this is aerial data?

**Mr WILDE:** Yes.

**Mr JUSTIN FIELD:** Lidar going over the top.

**Mr WILDE:** Yes.

**Mr JUSTIN FIELD:** Making a judgement about the forest has expanded to a degree. There will be a resolution question here about the biodiversity value.

**Mr WILDE:** Yes. I will be able to answer that question very easily once I look into the technical papers. In essence what was driving it was a thickening around the edges.

**Mr JUSTIN FIELD:** That would pick up changes relating to private native forestry operations, I assume?

**Mr WILDE:** Yes.

**The CHAIR:** One final question from me to you, Mr Wilde, and Professor Durrant-Whyte. The mapping of old growth and rainforests in both private land and public land, particularly State forests, has been described as pretty poor. Would you agree with that sentiment? If so, where can the improvements be made?

**Mr WILDE:** The Natural Resources Commission has previously been engaged to undertake a review of the mapping of old growth and rainforest and that program has now been suspended. When we did the review we looked at the mapping of candidate old growth and we chose 13 sites, which was in consultation with both Forest Corporation and the EPA on public land. Of those sites, from memory, six of those 13 sites showed that there was no old growth actually on those sites and we provided advice to government at the time to recommend a review of the mapping of old growth and rainforest. Because on our sample overall it was around about three-quarters there were inaccuracies of old growth and approximately, again from memory, it was around about the 30-odd per cent to 40-odd per cent of inaccuracies in rainforest mapping. For that work we recommended

through an expert panel a series of safeguards to ensure that the environmental protections and values of those forests would still be identified.

One thing is to tell, is it old growth or not, is it a rainforest or not, but then does it have other significant environmental values which need to be protected. It was a multi-criteria analysis and process that we recommended to government. But the short story is then the Government decided to suspend that program because we could not continue our terms of reference within the terms of reference and the funding envelope post the fires. It required analysis of canopy before you went and did ground truthing, and post fires with the high extent of canopy scorch we could not do that without a significant amount of taxpayer investment on ground to do it. The first pass was canopy and that was going to be cost prohibitive. We provided that advice to government and government decided to suspend that program.

**The Hon. TAYLOR MARTIN:** I have a question for Mr Wilde. Given last summer was quite wet and this one pretty much will be one of the wettest ones on record for quite a while, what sort of bush recovery rates have we seen since the 2019-20 fires? Do you have some data on that?

**Mr WILDE:** I do not have data at hand. The EES unit has a significant piece of work which we have commissioned, which is looking at recovery index and that was last run 12 months ago. It is due to be run again in January and that should show what I would expect—what we have all seen out there—is significant recovery and that should provide significant good news to industry and to the ecosystems and everyone who has a concern about our forests. That work should be re-run in the summer, which is the same time as it was run previously and I imagine it would show a significant improvement.

**Mr JUSTIN FIELD:** In potential recommendations for this inquiry the Forest Monitoring and Improvement Program is relatively new but it sounds like it is providing very useful information to guide policymakers and understanding. What is its status and funding security like?

**Mr WILDE:** The Forest Monitoring and Improvement Program was a four-year terms of reference from the then Premier, which expires at the end of this financial year. In addition the EPA also funded the NRC over a five-year program for the monitoring on the Coastal IFOA and, likewise, Forest Corporation contributes money as part of their own monitoring of their activities on that. That goes for another year. But in relation to the cross-tenure work on water, soil, carbon, jobs, flora, fauna—all those larger questions, and including private native forestry—there is no ongoing funding for that work that the commission currently has.

**Mr JUSTIN FIELD:** I assume you are making a budget submission for this year then to get some security of funding there, but you have had no commitments at this stage. As far as you understand that funding stops in the middle of next year?

**Mr WILDE:** That is correct. And we are going through a process at the moment to put forward a business case for it to be continued because, frankly, government, industry and community needs to have timely, reliable data to inform decisions on some of these critical issues and the value of any research and monitoring is its longevity. So we have initiated work on baselines, initiated great work with collaboration across government and university, but the real value will lie in this being a long-term program.

**Mr JUSTIN FIELD:** What was the year-on-year budget for the past four years? What was the average annual budget?

**Mr WILDE:** There was \$9.2 million in combining both—\$7.2 million, plus the EPA's \$2 million over the four years.

**Mr JUSTIN FIELD:** Over the four years?

**Mr WILDE:** So \$7.2 million over four years.

**Mr JUSTIN FIELD:** Is that sufficient in your view to be able to continue this work, or do the fires change ongoing need?

**Ms MACKEY:** The conversation really happened post fires in terms of what funding might exist in the space and considering the work that was required from EES as well. I was certainly part of those conversations post the fires.

**Mr WILDE:** There is a significant need for additional funding. So far we have done a terrific job—when I say we, this is across universities, agencies, not just NRC in any way—to basically mine the historical data, and then to initiate new programs using lidar and field-based plots. But that needs required ongoing investment, and to the extent at the moment it would not address any of your concerns about private native forestry, for instance. So if we are going to actually tell what difference and what are rule sets in the private native forestry or the Coastal IFOA, you need to have ongoing data and monitoring. And what we have got currently under the



program is sufficient seed funding to do the design, to mine the historical data and to initiate first runs on some monitoring, but it is not sufficient to actually address the significant needs, both on public and private land, moving to the future.

**Mr JUSTIN FIELD:** Just on that, I suspect there will be an increase in conversation around carbon in our forests—the value and potential of that—both in the trees and in the soils. I note your recent report that identified the loss of soil carbon. Does your monitoring improvement project go into carbon at all? Is it something you are looking at?

**Mr WILDE:** Yes. We have two projects which look into carbon; one on soil carbon and another one on carbon stored in forests. The soil one is actually publicly released. The other one is going through further technical review.

**Mr JUSTIN FIELD:** But these are ongoing as part of the improvement?

**Mr WILDE:** Ongoing, yes—well, within this—

**Mr JUSTIN FIELD:** Existing funding.

**Mr WILDE:** —existing funding. And obviously if you are a private native forestry operator then the more diversity you have for your income and for being a great steward of your land, you would be very interested in emerging carbon markets and that there should be advocacy in relation to addressing issues of additionality for those private native foresters who are good stewards of their land. And our data should hopefully inform some of those decisions.

**Mr JUSTIN FIELD:** Thank you very much.

**The CHAIR:** That concludes the hearing. Thank you very much for your time. You have taken some questions on notice, and the Committee secretariat will be in touch with the time line to get the answers back to us. Once again, thank you for your time and your candour. Safe travels wherever you are going and happy festive season.

**(The witnesses withdrew.)**

**The Committee adjourned at 12:37.**