

REPORT ON PROCEEDINGS BEFORE

**PORTFOLIO COMMITTEE NO. 7 - PLANNING AND
ENVIRONMENT**

INTEGRITY OF THE NSW BIODIVERSITY OFFSETS SCHEME

CORRECTED

Virtual hearing, via videoconference on Friday, 22 October 2021

The Committee met at 9.30 a.m.

PRESENT

Ms Cate Faerhmann (Chair)

The Hon. Catherine Cusack

Mr Justin Field

The Hon. Ben Franklin

The Hon. Rose Jackson

The Hon. Shayne Mallard

The Hon. Mark Pearson (Deputy Chair)

The Hon. Penny Sharpe

* Please note:

[inaudible] is used when audio words cannot be deciphered

[audio malfunction] is used when words are lost due to a technical malfunction

[disorder] is used when members or witnesses speak over one another

The CHAIR: Good morning and welcome to the first hearing of the inquiry into the integrity of the New South Wales Biodiversity Offsets Scheme. This inquiry is examining a range of issues including the effectiveness of the scheme to halt or reverse the loss of biodiversity, the administration and regulation of the scheme, and the use of offsets for major projects. Before I commence I would like to acknowledge the Gadigal people of the Eora nation, who are the traditional custodians of the land on which the Parliament sits. I also acknowledge the traditional owners of the lands from which all meeting participants join us today. I pay my respect to the Elders past, present and emerging, and extend that respect to all Aboriginal people watching.

Today's hearing is being conducted virtually. This enables the work of the Committee to continue during the COVID-19 pandemic without compromising the health and safety of members, witnesses and staff. If participants lose their internet connection and are disconnected from the virtual hearing, they are asked to rejoin the hearing by using the same link as provided by the Committee secretariat. Before we commence, I would like to make some brief comments about the procedures for today's hearing. 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. Committee hearings are not intended to provide a forum for people to make adverse reflections about others under the protection of parliamentary privilege. In that regard, it is important that witnesses focus on the issues raised by the inquiry terms of reference and avoid naming individuals unnecessarily.

All witnesses have a right to procedural fairness according to the procedural fairness resolution adopted by the House in 2018. There may be some questions that a witness could only answer if they had more time or 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 of receipt of the transcript. Today's proceedings are being streamed live and a transcript will be placed on the Committee's website once it becomes available. A recording of the proceedings will also be placed on the New South Wales Parliament's YouTube page. Finally, I will make a few notes on virtual hearing etiquette to minimise disruptions and assist our Hansard reporters. I ask Committee members to clearly identify who questions are directed to. I ask everyone to please state their name when they begin speaking. Could everyone please mute their microphones when they are not speaking. Members and witnesses, please avoid speaking over each other so we can all be heard clearly.

BELINDA PELLOW, Acting President, Ecological Consultants Association of NSW, affirmed and examined
ANDREW LOTHIAN, Treasurer, Ecological Consultants Association of NSW, affirmed and examined

The CHAIR: I now welcome our first witnesses. Do both of you have a short opening statement, or is it just one of you making a short opening statement for the Committee? Mr Lothian?

Ms PELLOW: It will be me, Belinda Pellow.

The CHAIR: Sorry, Ms Pellow. Thank you. Go for it.

Ms PELLOW: Yes, we do have an opening statement. Thank you very much for inviting us to address the Committee relating to our submission to the integrity of the New South Wales Biodiversity Offsets Scheme [BOS]. For a bit of background, the Ecological Consultants Association [ECA] is the principal professional body in New South Wales representing consultants who provide ecological services to industry and government under various State and Commonwealth legislative instruments. Professional members of the ECA are sole traders, small business owners and individual employees who work under a code of ethics and may also be certified by the ECA for high-quality and reputable work. ECA members are well placed to provide comment on the BOS as we are on the coalface of implementing its policies and regulations, and we are aware of the issues that have arisen in its application. The ECA submission addresses issues with the integrity of the BOS commonly raised by our members.

Our members believe that many of these issues may have been avoided with adequate testing of the system prior to its introduction and through adequate consultation with practitioners. The system has in fact been trialled live by our members, often at additional cost to our businesses, but without the opportunity to provide meaningful feedback to improve the system. Five years on, clients are now footing the bill for issues that remain unresolved. Our submission reflects on the terms of reference for this inquiry. For example, the ECA believes that approval of projects impacting habitat for the critically endangered honeyeater, or any project removing hollows of the vulnerable superb parrot, provides good examples of how the BOS does not currently facilitate the halting or reversing of biodiversity loss. Nor do the Biodiversity Conservation Act variation rules, such as one that allows for a threatened orchid to be offset with a threatened non-orchid plant species. We also believe that the BOS is hampered in its ability to prevent biodiversity loss by the failure to release supporting guidelines and maps required under the Act and its regulations.

We have no issue with the role of the trust in administering offsets, but they may need changes to the regulation to address their capacity to cost-effectively meet their offset obligations. We also see no reason for major projects to be required not to use the scheme. We believe there are issues relating to non-additionality and offset prices. A lack of certainty around the scheme, partly due to ever-changing goalposts as a result of the scheme being launched prior to rigorous testing, is causing a major barrier to entry for landholders. Combined with the option for clients to acquit their offset obligations via the trust and get on with their projects before offsets are secured, this means we are currently seeing a major shortfall in biodiversity being offset whilst development proceeds risk free, that risk now often being borne by the trust. As an association that represents many small business operators, we hope to explain the ramifications of the current BOS on small businesses and their relationships with clients, and point out some of the issues directly jeopardising the integrity of the scheme. In doing so, our aim is to help improve the function of the BOS going forward. Thank you.

The CHAIR: Thank you very much for that. We are going to have questions reasonably free-flowing for members. I will start very quickly with one or two. Is it your view that the Biodiversity Offsets Scheme as it operates at the moment—and the outcomes as a result of its operation—is resulting in no net loss of biodiversity in New South Wales, Ms Pellow?

Ms PELLOW: No, we would not be of that opinion. As the system is currently operating, we believe that there is a loss of biodiversity.

The CHAIR: Therefore, it is not acting according to the intention with which it was set up. Is that correct?

Ms PELLOW: Yes, that is our belief.

The CHAIR: The Biodiversity Offsets Scheme is based on the "avoid, minimise, offset" hierarchy. Do you think that hierarchy is being used in practice? I know you have some recommendations in your submission, but it does seem—"avoid", for example, and "minimise". Is that—

Ms PELLOW: In terms of "avoid" and "minimise" I think the scheme does attempt to facilitate that. Its aim is to encourage developers, say, to avoid and therefore minimise impact, in that the consequences of not

avoiding are greater, in theory, than if they do avoid. I think the flaw, perhaps, is about offsetting and offsetting like for like. I do not think many people who have done a lot of work in understanding offsetting and whether or not it actually does function to protect biodiversity and enhance it would agree that offsetting in its current form is doing that.

The CHAIR: In New South Wales—say in western Sydney and Cumberland Plain Woodland—is there the situation at the moment with major projects that they are being approved with offset obligations that simply cannot be met anymore? Is it the case that they are therefore paying money into the Biodiversity Conservation Trust [BCT] and it is unable to meet those obligations to genuinely offset the loss of Cumberland Plain Woodland, Mr Lothian?

Ms PELLOW: Yes.

Mr LOTHIAN: I do not work in Sydney, but this has come up in some of the meetings that I have been attending with the Biodiversity Conservation Trust recently. The scheme is essentially economic and works off supply and demand. At some point there will not be any green areas to supply offsets in western Sydney, particularly when developments are being approved. If obligations for offsetting are acquitted via the trust, you have approved the development prior to actually locking up or securing any of those offsets. At some point there will be no availability of those offsets, and I think that is one of the major issues with the scheme. There aren't thresholds in place whereby you say, "Okay, once this critically endangered ecological community or species gets to this point, we will no longer accept any offsetting of that species. You have to use 'avoid'."

The CHAIR: With Cumberland Plain Woodland, for example, surely we are almost at that point, aren't we? We have South West Growth Area, for example, that is going to clear and is clearing a lot of Cumberland Plain Woodland. We have seen major transport projects. We are almost at that point. That is the issue; they are offsetting places that are already protected. It is resulting in an extraordinary net loss of critically endangered ecological community, Mr Lothian. This is what the scheme is enabling.

Mr LOTHIAN: Yes, and that is the key to our concerns with this. It sort of goes to the underlying way that offsetting works. If you take the scheme as a one-for-one offset of what you are removing—there are multipliers which mean that is not the case. If you look at one to one, over time we will lose 50 per cent of what we have now, while the other 50 per cent is put in to offset the 50 per cent we are taking out. I cannot see that as a net gain.

The Hon. PENNY SHARPE: Thank you very much for your submission. It is actually very helpful. I just wanted to ask you a couple of questions. You are very critical, and rightly so, that the system was put in place without the sort of testing that needed to happen to set it up to be rigorous. But obviously, as a result of that, there has been this real-life testing that has exposed all of those issues. If we were going to go back and have a look at the system, I suppose my first question is: Do you believe that there should be an offsetting system altogether, or do you think that it cannot work? Then my questions really are—I know you touch on these in your submission, but what are the key things you think would immediately make a difference in terms of improving the system?

Mr LOTHIAN: That is a difficult question to answer in the time we have been given today. There are issues with the scheme and, yes, there are underlying issues with offsetting. Do I think that we shouldn't be putting aside areas of native vegetation and restoring them? No. I think there is still a place to do that. Even prior to this scheme coming in, offsetting was part of how we managed impact assessment. There were just a number of different pathways that you could go through, whether it was informal offsetting or BioBanking and the BioBanking Assessment Methodology [BBAM], prior to this scheme being brought in. I think the issues really come down to supporting documentation, which is still lacking five years down the track—

The Hon. PENNY SHARPE: Can I just get you to unpack that a bit for us? One of the things I will say is that you are both experts in this area. Committee members are very interested in this, but we are not across the detail of how this works. It would be very helpful if you could explain what the process and the supporting documentation—just unpack the issues for that, because I think it is very important.

Mr LOTHIAN: Yes. I am personally a fauna ecologist. With the range of fauna species that you have got to look for across the State, some are fairly general; woodland birds are all the same method. But for each other species there might be nuances for the survey techniques that rely on various research that has been done on those species, some of which is lacking. Others just haven't been synthesised into the survey guidelines. As ecological consultants or as a fauna consultant, we are still operating generally off the draft survey guidelines that were produced by the Department of Environment and Conservation [DEC] back in 2004.

The Hon. PENNY SHARPE: So they are still in draft, since 2004?

Mr LOTHIAN: Yes. They were never finalised. There are bits of information being fed into the threatened biodiversity data collection and the background to the Biodiversity Assessment Method [BAM] calculator. That sort of stuff is being fed in there now, but it is still patchy. The other issue is that you get it changing mid-project. Some of these projects involve surveys for animals over the period of a whole year, and midway through the project you find that the months that you are allowed to survey for something have changed, or the requirements for how much survey effort is needed change, or the buffer zones around certain things change midway through the project. We are still missing stringent koalas survey guidelines. Every project that comes up, you have to apply to the department to get confirmation of what survey effort they require for a project. At the moment—

The Hon. PENNY SHARPE: So there is just not a standard set? When you are going looking for koalas, there are not standard guidelines. You just have to go to the department and see what they have got. Is that how it works?

Mr LOTHIAN: Look, as a fauna ecologist you would have an idea yourself about the various survey methodologies that are appropriate, but it is the determination of how much of which survey efforts the department requires to sufficiently support that that species may not be in the landscape. How much evidence do you want before you are going to say "Yes, we are happy that you have surveyed and that species is not there"? That is the part that is lacking. It is not so much the methodology as how much survey you are required to do. We need that information before the project starts, just to cost how often we are going to be on site. We have got things like the koala survey guidelines that are missing; it is obviously an important species that the Government wants to look after. From the plant side of things, which Ms Pellow could probably speak to, resources such as PlantNET, which provides keys to keying out plant species and lets us know which plant species actually exist or what has been split—that resource isn't properly funded. I do not think that has been finished. It is not updated. Ms Pellow might be able to speak more to that.

Ms PELLOW: Thanks, Mr Lothian. The issue with PlantNET is correct. It is an absolutely crucial resource because just about everything in the BOS operates on an understanding of the vegetation, even the fauna and the fauna habitat. It is hosted by the National Herbarium of New South Wales and it has been there for a long time. Without going into a lot of detail, the keys—which we use to determine what plants we have and which we then use to determine the community we are in—are 20 years out of date, some of them. That is something that we as an association have been trying to [audio malfunction] with the department for quite a while. They have resources to do the barest minimum there. They just keep their head above water. Really, that resource is used every day across New South Wales by many, many consultants. The key allows you to determine your plant, but when you open the key and there are 20 species and across the top there are another 20 that have not been incorporated into the key, you are in a bit of trouble unless you are already relatively experienced. So, yes, that is true. The other thing that I would like to—

The Hon. MARK PEARSON: Excuse me, Ms Pellow. Could you explain what you mean by "the key"?

Ms PELLOW: Yes. When we go out into the field and we are looking at hundreds of plants, we collect them and then we bring them back, often, to a laboratory. Using a microscope and what are called dichotomous keys—they are descriptive keys that explain the characteristics of plants. They allow you to determine what particular species you have collected. For botanists who are experienced, they know a lot of plants already. But when you are dealing with the detail around whether or not you have collected a threatened plant species and the difference between it being threatened or not is the particular type of hairs it has on it, or other small characteristics, you need the key. You need a key that explains the character and helps you pick and work your way towards the species you have. Those keys were once published in a big, four-volume set, *Flora of New South Wales*. That information is now online as part of PlantNET. So we can access those keys online whenever we need to, but they are not up to date.

The Hon. PENNY SHARPE: Working with out-of-date guidelines and not actually having the foundational documents you need to do a proper plan are pretty serious matters. In terms of your interaction with the various departments and the department that modifies the scheme, do you have formal advisory groups that are actually saying this? What is the mechanism through which you are consulted in relation to these issues?

Ms PELLOW: The association has been in place for over 20 years, and the mechanism is primarily a mechanism of us writing to and approaching the department. We are at times given access to documents to review. Particularly with the Biodiversity Conservation Act and the BOS, we were provided, but at a very late stage; a lot of conclusions and decisions had already been made. As an association we have written many letters to the department and to the Minister. I would say maybe two years ago we finally got some traction, and we had meetings organised every three months to raise issues with the department to help improve the system, but that has faded away again. We have approached them yet again to get these meetings up and running again, but we

have had no success. The relationship is better than it was and we do now sometimes get guidelines to review—when they go to the public, they ask us to review them—but it could definitely be better.

If you do not mind, one other thing I would like to raise is that one of the resources that is seriously lacking is the Native Vegetation Regulatory Maps, especially the category 1 and 2 maps. I understand they are prepared, but they are not made available. Category 1 and 2 lands are applicable to the rural sector, and at the moment consultants who are asked to go out and assess an area do not have those maps to determine whether or not they are on category 1 or category 2 lands. Category 1 lands are lands which can be self-assessed by the property owner. Category 2A is also missing. That is really quite a serious missing resource. There are a lot of things I could say around that and the ability of people to assess their properties, but that is primarily the issue there.

The CHAIR: Thank you, Ms Pellow. Quite a few submissions did make note of that, as well. I am going to move to crossbench member Mr Justin Field.

Mr JUSTIN FIELD: Thank you, Chair. Thank you for your attendance today, both of you. I am not sure who is best to answer this question, but I am also the chair of a separate inquiry that is looking into the proposal to raise the Warragamba Dam wall. You have made some comments in your submission about the work on the biodiversity assessment report for that project. To quote from your submission, you say:

We note that the accredited assessor who produced the BDAR was asked to change their assessment ... to downplay the impacts of the project on biodiversity loss relating to a Critically Endangered Species.

You mention further that:

The fact there has been no thorough investigation into this is concerning.

It is concerning to me to see that in your submission. I was wondering if you could expand on that and whether or not there have been any updates since your submission. I note, of course, that the final environmental impact statement [EIS] is now out for public consultation.

Mr LOTHIAN: Yes. This simply comes from a conversation with the consultant concerned. We have not had a chance to raise the issue with the department. The consultant concerned said that they raised it with the department and put in a formal issue. But since we have not had our three-monthly meetings with the department, we have not been able to raise it with them as to whether this has been followed up on and what the outcomes of that were. I really do not have any more information than what I have put in the submission, unfortunately. I would probably have to direct you to the department to see what the outcomes of their investigation were.

Mr JUSTIN FIELD: That's understandable. You also mention that it is an example of the offsets scheme being manipulated for political purposes. Do you have other examples where that has happened? I assume that you are talking primarily about major projects that are government projects, whether they be major infrastructure roads or the like.

Mr LOTHIAN: I think the biggest issue with the Warragamba Dam project comes back to that "no net loss" thing. We are dealing with a critically endangered species that has three key breeding areas known across New South Wales and Victoria, and this one could be a fourth known site. Any project that removes one of the last four known breeding areas for that species surely is not applying the "no net loss" principle. Regardless of whether the proponent be government or otherwise, there probably needs to be a little bit more work on the "avoid" side of things rather than going to offsetting on an issue like this.

As far as government use of the scheme goes, I do not see any reason why government projects are not subject to the same offsetting obligations. The idea of the scheme is that everyone, regardless of the size of the development, is thrown into the same scheme alongside each other. Whereas in the past a lot of private residential developments might have been considered small enough to fly under the radar, now they are all thrown into the same scheme if they meet the entry threshold. Now, whether those entry thresholds are appropriate or not is another thing. I consider the issue with Warragamba Dam not to be so much an issue with the Government but an issue around—this is a critically endangered species with very limited breeding habitat, and this probably should be avoided rather than offset.

Mr JUSTIN FIELD: You are talking about the regent honeyeater, I assume?

Mr LOTHIAN: Yes.

Mr JUSTIN FIELD: That is useful. I do have a question about the BCT. You make comments about limiting what level of project should be able to go to the BCT to offset their obligations here. You highlight the "develop now, offset later" approach and the fact that just 20 per cent of the obligations that have been taken on by the BCT have been actually acquitted in the first five years of the scheme. Obviously they cannot acquit things

immediately in some instances. In some instances you want to get the efficiencies of combining different offset obligations to make really strategic purchases. What do you think is a suitable time frame?

Mr LOTHIAN: When this first came in, their aim was to operate at net even over a five-year period. Any obligations that they are taking on over a rolling five-year period, they should be able to acquit. But the issue here, five years down the track, is that there is very little land being put up for stewardship. It is not a case of them not economically achieving—they are not seeing credits out there and choosing not to buy them. There aren't credits for them to buy. As development continues and the obligations are passed to the trust, the process of actually producing one of these stewardship sites is incredibly costly and incredibly complex.

It has become more complex as the trust, which is administering it, has realised, "Oh, we need to include this. We need to include this." You have contingencies on contingencies on contingencies to ensure that you are producing the amount of biodiversity gain that issued you with credits now. You have to make sure you are going to meet that gain in 20 years. The amount of contingencies that have to be costed into this to make sure—I guess you are trying to avoid that risk of not meeting that. It is so incredibly complex that landholders are just balking at the cost of the assessment, to start with, let alone their obligations over the next 20 years.

The Hon. BEN FRANKLIN: Chair, I have a question. Could I just go back to Ms Pellow? I was concerned about your discussion in your opening statement—Ms Sharpe picked up on this, too—about the testing having not been properly done initially. Could you go into that a little bit more and explain exactly what you think should have been done before the scheme was implemented?

Ms PELLOW: Well, I would say that they did not engage enough with the people who were already working out in the field, in the industry, and who had knowledge that they could contribute to make the system more practical and to alert them to issues that would have been seen by—I am speaking from the point of view of our members. We are the people who go out and have to use the regulations and the policies and interpret the Act. I would say, yes, if they had engaged us more in the initial process—we wanted to be engaged. We attempted to be engaged, but we were not engaged. I would say that testing it—it is such a complicated system. I think testing of the actual credit system should have been done and was not. In terms of the actual assessment methods and how they are carried out, there was already information available about that, which they were utilising to improve their method. I think there should have been more consultation and better testing of the actual credit system. What is your opinion, Mr Lothian?

Mr LOTHIAN: I do not know about Ms Pellow, but I know that for every project that I have worked on there is a new issue that comes up, whether it be a missing link in the background database that means that you cannot select something that you need to. Those are administrative issues, I guess, but there are a lot of holes where assumptions need to be made. This is a standardised system to be applied across the board. Without real clarity on all of these little nuances, you are individually applying to the support to get a response and they are giving you a call. They are not giving you a written response that you can take as gospel and pass on to other consultants to use as well. If they had simply taken on—"Okay, let's try a development project with this system and let's try an offset site with this system." Even doing one of these—you may be doing it at an upper level for a major project, or you may be doing one at a small level for a house being built on a bush block. If you had done just a couple of these to start with, you would have a very good idea of the obvious issues that would come up straight away.

The CHAIR: Obviously there have been a couple of stories in *The Guardian* in relation to potential—it almost looks like insider trading, in some ways. People are doing the assessments and they are also part of a consortium or they have ownership of certain land which happens to become the offset for the properties that they do the assessment on, and they are making a fair bit of money out of that. Firstly, I would be very keen to know what you think about that and whether you think that this is going on; clearly, it seems to be. Firstly, are there any other examples? What needs to be done to stop this from happening? Is it an issue of concern within the industry, and what needs to be done to stop it? Ms Pellow, I might go with you first.

Ms PELLOW: Thank you. The association is aware of this, and we were not surprised by the article in *The Guardian*. There are some processes that could potentially be altered to make it harder for someone to be a BAM-certified assessor and also be able to access insider information, I suppose, in terms of access to the department, and so on. How much of an issue is it? I guess it is an issue. It is not ethical, and that is an issue. But in terms of loss or gain of biodiversity, there are other things that I think are more important; for instance, the acceptance of the reality that there are some communities like the Cumberland Plain Woodland that should be a no-go area now. It should just be a no-go area, as Mr Lothian said. The whole process is focused on threatened species and threatened ecological communities primarily, but there should be a process that is starting to address other communities that we are losing before they get to that state. But it is an issue and we are aware of it, yes.

The CHAIR: Mr Lothian?

Mr LOTHIAN: The idea underlying this scheme is putting a dollar value on native vegetation. I guess the idea of the scheme is to create financial incentive for landholders to protect native vegetation on their properties. This has been raised by our insurers at this point. A lot of the public liability insurers are starting to see that maybe we need to be considered as operating in the financial industry, because the decisions that we are making are now either costing people money or generating people money. I think you will find that a great deal of ecological consultants out there have no experience in the financial industry. I have an economics background from university level, but that is about it. But it at least allows me to understand the economic drivers behind the scheme.

That whole fundamental thing of, "If you have native vegetation on your property, here's a financial incentive to protect it"—people do not do that unless they are going to make a profit out of it. You can get money for protecting that vegetation on your property, but if that is going to be a loss because of the management costs associated with that, there is no way that you would do it. It is only if you are going to make a profit off the arrangement. You have got to put in all your time to pay the consultant to do the assessment in the first place. Then you cannot use that land for other purposes in future. So you have got the opportunity costs there. All these need to be taken into account with the cost of the credits that you are going to generate on the land and receive. Then you have got the management obligations for the next 20 years and into perpetuity. You need to make sure you are at least meeting those costs.

I think this is one of the underlying issues with the trust not being able to acquit their obligations. Any landholder out there who is entering into this scheme at the moment is going to be a new entrant into this market. People will expect high risk, high reward. So people are going for large risk margins in terms of what they want to offer their credits up for sale at, which might be beyond what the trust can purchase at the moment. This is coming back to the issue of the trust actually being able to cost how much it would cost to generate credits and how much it would cost for them to acquire credits. When a client goes to acquit their obligations via the trust, the trust has to give them a costing: "We think it would cost us this much to buy these credits and retire them." Trying to estimate those costs is phenomenally difficult when you have no idea what risk margins people are willing to accept to enter into the scheme—

The CHAIR: Mr Lothian, can you just take a step backwards. Suddenly it seems like we are doing an inquiry into the stock market, not biodiversity. When you are suggesting landholders doing something with high risk, can you give us an example of what you are referring to. Just talk us through what that is and what that means.

Mr LOTHIAN: "High risk" is simply referring to the amount of investment on their behalf to enter into stewardship as compared to—or even the cost of not. Say someone in western Sydney owns a large block of land which has reasonable timber on it. They have two options. They can either put that up for stewardship and all the costs that go along with that. But they could also sell that to a developer. The amount of money they would get to sell that to a developer in western Sydney, where land is becoming harder and harder and harder to get—the risk of them putting their land up for stewardship and generating credits means that in the future they might have a steady income of \$100,000 worth of management costs over the next 20 years. But they might be able to make \$40 million off the block of land now by selling it to a developer. So there is a large risk in terms of that and the fact that a lot of people think this scheme is just going to fall apart. But there is a concern: "What if I put my site up for stewardship but then no-one wants those credits? I spent a lot of cost. I've got all these credits. But if no-one wants to buy them, I've still got to manage the land. I still can't use the land for other purposes. I can't sell it to a developer." There are risks involved with entering into this scheme as a landholder.

The CHAIR: Mr Field has a question and I have another one too. We will go round and see if other members have questions too. Mr Field?

Mr JUSTIN FIELD: Thank you, Chair. Just on the issue of the cost of doing it, also the Biodiversity Conservation Trust [BCT] obviously needs to estimate the costs. There is currently a review of how this transition of the calculator across the BCT is going to work. I think it seems to be because the BCT has underestimated some of these costs in the past. They have experienced a substantial loss in their estimates of how much it is going to cost to equip these ones that they hold now. Have you been involved in the consultation around this transition of the calculator?

Mr LOTHIAN: Yes, I have been involved in those meetings with the BCT where we are trying to figure out a way to deal with this and how best to cost these credits from the BCT's side. We had three half-day meetings on it. We did not really get much closer to having a solution. One of the issues appears to be the regulation might constrain what the BCT are allowed to do with the funding that they are collecting from people who are acquitting their obligations via the trust. From a consultant's perspective, when you are trying to cost how much it is going to be to generate these credits, if you are asking a landholder to generate those credits as an investment on their

piece of land, there will be a risk premium on that that they will pass on to the trust when selling those credits to them. Whereas if the trust themselves could purchase that land, put it up for stewardship and all that, they would be getting it at cost—no mark-ups, nothing like that, and no risk margins for what people consider to be a suitable return on their investment.

If the trust were allowed to purchase and offset land on their own, then I think that they would be probably in a better position to figure out what it would realistically cost them to offset and generate those credits. But they are constrained by the regulation, which I do not think allows them to do that. So they are still going back to this whole market mechanism, which has been failing, and then just trying to estimate. We spent three days, sitting there, trying to—"If we do this, maybe we could estimate this." There is a lot of guesswork involved in the system. When you do that, you have got to include risk margins for if you get it wrong. Once you do that, the costs start escalating.

Again, there are big problems with the market mechanisms. This is not an easy scheme. Every credit or trading group that is on that market operates as an independent market. It is not a case of saying, "Well, you can chuck 20 species on the credit register, and then we have got one market trading in 20 credits." It is not like that. Every species is its own market because these things—some of them are, some of them are not interchangeable. But for non-interchangeable things, if you are going with like-for-like offsets, each credit is its own market. To get enough trades in that credit in that market to get reliable data on supply and demand, costing—we are just not seeing those trades. The economists behind that review with the BCT are estimating something around 40, I think. They are estimating they would need about 40 trades in an 18-month period to get fairly robust data. Honestly, I do not see that ever happening.

The CHAIR: The BCT, in terms of the credits that it holds, I understand you have just said you sat around for three days. It has just got all these offset obligations that it is finding increasingly difficult to meet. That is only going to increase in the future, of course, as well, is it not? So you are trying to find a solution with the biodiversity assessment methodology calculator, but it is almost about money. The calculator will make it easier to offset, will it not? I am just trying to work out how I am formulating my question. There needs to be a lot more money, you are saying, as well for the Biodiversity Conservation Trust to be able to do its job. Is that one thing?

Mr LOTHIAN: It is very hard to separate the financial side of this scheme from the operation of it. Essentially, the underlying issue is that there are no credits for the trust to purchase and retire. That is the underlying issue. The landholders are the ones who need to be putting their places up for stewardship, but the up-front cost of doing that is high. But like any investment, you have got to spend money to make money. The up-front costs are high, but if you have enough information about the scheme, then you can see that there might be a reward in that in the longer term. But it is so much of an unknown to landholders.

It is hard enough for us as consultants and even the credit assessors to really understand and get a grasp on this system. But people outside of the system—the financial advisers who are advising people on how to invest their money, the accountants that are signing off on this stuff, the landholders themselves—do not have any of this information. It is way too risky an investment for them. Beyond some people who just want to leave their legacy as protecting a block of land, there is not a lot of people out there who are really jumping to engage in this scheme when they start to get more information about it and how complex it is.

Ms PELLOW: Belinda Pellow here. I just wanted to follow up Mr Lothian on that. It does seem to rely a lot on willing participants, people whose philosophy is they want to protect the land that they own. Therefore, they want to stay on it and they want to manage it into the future, for conservation really rather than—it is a way they can do it and be supported financially. But if that is not the philosophy of the person who owns the land, they just see it as a resource and a way of increasing their wealth, then they are much more likely to sell it for \$40 million to a developer than to go to the trust and to work with that. That system relies on people in the community having a certain philosophy, I would say, the way it is run at the moment because it is not able to compete.

Mr LOTHIAN: I think I made reference to it in the submission. In terms of the testing of the scheme before it was brought in, I think, what needed to happen was actually the Government perhaps purchasing some blocks of land, generating credits on those stewardship sites and then being able to stimulate the market with credits, put them out there on the market and let people start buying them and start generating trades. Instead, we have gone in the wrong way. We have gone in with only developments and no stewardship sites and this legacy. We are going to be catching up forever, whereas if we had gone in with stewardship sites already there, with offset credits available for you to purchase, then maybe things would have worked out a bit better.

The Hon. PENNY SHARPE: I have just got one quick question. Are there schemes that you would point to that are more rigorous and working in a better way than the current scheme we have?

Mr LOTHIAN: I have not done a lot of research in that space. I am not aware of any other schemes. But I have not really looked into it. I have been so bogged down in trying to modify and, I guess, fix this one.

The CHAIR: Thank you. I just wanted to just quickly check whether there are any last questions. That was a very informative, very useful first session for this Committee. We got you both here with that in mind, knowing that you would have the breadth of knowledge for us to ask questions of you. Thank you very much. Your submission was incredibly useful as well and will be taken into account by this inquiry and Committee members. Thank you for your time.

(The witnesses withdrew.)

(Short adjournment)

ALEXANDER COX, PhD Candidate, Crawford School of Public Policy, Australian National University, affirmed and examined

PETER MASLEN, Engineer and Ecological Scientist (retired), affirmed and examined

The CHAIR: Thank you very much. I understand both of you have short opening statements to make. Mr Cox, if you would like to begin, thank you.

Mr COX: Thank you, Chair. Before I begin I would like to pay my respects to the Ngunnawal people, on whose lands I currently address the Committee. I also would like to thank the Committee for inviting me to give evidence today. I would like to emphasise the following points from my submission. Biodiversity offsetting on its own is unlikely to reduce biodiversity declines in New South Wales. This is because the way the credits are generated at offset sites largely relies on the principle of averted loss. Because of this, the biodiversity benefit conferred by offsets under the current model do not necessarily provide additional habitat to offset losses elsewhere. This implies, of course, a net loss of habitat over time. While offsetting is generally intended to be used as last resort at present, it continues to be used to facilitate the unnecessary clearing of habitat for threatened species.

Currently the market in biodiversity credits is constrained by a lack of supply. This is partly due to the cost of biodiversity assessment, the relatively low price of credits and market illiquidity. Enrolling additional landowners into the scheme will be critically important to establish a robust credit market going forward. The Committee should note that markets in environmental goods such as biodiversity credits are relatively immature. Regulators managing other environmental markets, such as the carbon market, are also grappling with the challenge of stimulating supply.

Despite these challenges, it is my view that impacts to biodiversity caused by development should be subject to strict offsetting requirements. Provided the offsets scheme is made more robust, it can positively contribute to improved biodiversity outcomes in three ways: one, should credit prices rise, the scheme will provide a strong disincentive against further land clearing; two, the scheme forces developers to compensate the public should they try and clear habitat for threatened species; and three, the Biodiversity Conservation Trust [BCT] is potentially well positioned to support the rollout of a strategic portfolio of conservation reserves on private land. Thank you, Chair. I look forward to your questions.

The CHAIR: Thank you, Mr Cox. Mr Maslen, do you have a short opening statement for the Committee?

Mr MASLEN: Yes, not up to the standard of Mr Cox's, though. Good morning. Thank you for the opportunity to address the inquiry. I now sit on the land of the Yaegl community here in the lower Clarence Valley. Having spent all my adult life in campaigns to protect Australia's natural heritage, I had high hopes that biodiversity offset schemes would assist in ensuring that we would not lose our heritage. Sadly, none of the schemes that I have witnessed in Queensland, New South Wales or federally have achieved any real offset for the loss of vegetation and hence biodiversity. As far as I have observed, all have resulted in a net loss of habitat and commonly no protection or offset of habitat locally or regionally. The greatest flaw in all the schemes is that none of them offset losses and—while repeating myself—all result in a net loss of habitat by not ensuring that any offset results in no net loss and, preferably, a net gain in habitat that have occurred over the last couple of hundred years. Your attention is drawn to the International Union for Conservation of Nature definition of "biodiversity offsets" in my submission. Justify in your own minds that the current scheme meets this criterion.

Coupled with a decline in protection of native vegetation in recent years caused by a reduction in protection due to changes in legislation, I believe if an accurate audit of the status of the State's biodiversity should be taken, one would find that a decrease has occurred over the last decade. It is a common failure of legislation that effective action by government does not occur until after a species has reached the endangered or critically endangered status. If an effective biodiversity offset scheme was in effect, then this accelerated rate of biodiversity decline would not be occurring.

The classic example of this failure is the rapid decline in New South Wales of koala populations, which reported a 41 per cent decline in four years, ensuring its Vulnerable conservation status. While you may consider this is due to the bushfires of this period, it is not the sole cause. This overused iconic species typifies the situation of many species in New South Wales. A biodiversity offset scheme which ensured that natural habitats would not decrease and the biodiversity of all species both locally and genetically was maintained would prevent this constant attempt to catch up on weak and poorly administered environment protection legislation and management, both from government and at private levels.

I have been involved at local government officer level in offset schemes which achieved a net gain in habitat. Regrettably, with the political change in the make-up of that particular council, the ability of the council officers to achieve this was removed, with a revised planning scheme to benefit the developers and a dramatic decline in the koala habitat, resulting in a corresponding 60 per cent decline in koala populations over the decade. Prior to this occurring, koala populations were stable. My conclusion from this experience is that a properly set-up offset scheme can work. As the scheme does not address the constant small habitat losses approved by local governments and State governments, which accumulate to create a significant loss of habitat and hence biodiversity, the scheme fails to preserve the biodiversity of the local environment and the State's overall biodiversity asset.

There is limited recognition of the value of habitat on private lands. Hence, the ease of clearing of habitat does not get addressed properly by the scheme. The inability for the community to assess the results of an offset action is demonstrated as detailed in my submission, by the reported offsets for the Pacific Highway upgrade between Woolgoolga and Ballina. The community has no idea where these offsets have occurred and if the local ecosystems have been protected in a location near to where the losses have occurred. I hope your Committee will recognise the inability of the current scheme to ensure the maintenance of the State's biodiversity and recommend changes so that this can occur. Thank you.

The CHAIR: Thank you very much, both of you, for those statements and for your very good submissions. Of course, Mr Cox, you also wrote your thesis on this very issue, the New South Wales Biodiversity Offsets Scheme. Thank you for doing that extensive work, which can be used as a resource, as we see, for the Committee. I will go to you first, Mr Cox. Could you explain a little further. Your submission states:

... much of the calculated biodiversity 'gain' of managed offset sites is derived by 'averting loss' and is based on the assumption that in the absence of a Biodiversity Stewardship Agreement ('BSA'), that biodiversity values would continuously decline in the future.

You stress that this is quite an important point to get our heads around. Could you just explain that a bit further for the Committee, firstly, why that is a problem, that it is based on that?

Mr COX: Yes, certainly. Credits at offset sites or stewardship sites are generated in three ways: firstly, on the basis of averted loss; secondly, on additional management actions, such as planting trees or securing area from invasive species; and, lastly, for some offset sites that are of particularly high value, they are awarded a sort of security bonus, which gives them additional credits. But I think it is fair to say that the balance of credits at most stewardship sites are awarded on this first principle of averted loss.

The way the calculator works is an assessor will come into a proposed stewardship site, work out the value of that site in credits in the present day. Then the calculator will assume an ongoing rate of decline 20 years into the future, which is the life of the stewardship site. So if a particular stewardship site had a value of, say, 1,000 credits today but in 20 years was presumed to have a value of, say, 100 credits, that 900-credit difference is credited to the stewardship site as basically having averted that presumed loss. This is problematic for two reasons. Firstly, it assumes basically unilaterally that in the absence of creating an offset site, the biodiversity values of that area would decline indefinitely into the future. That is obviously an assumption that can be questioned for many sites. Secondly, what it implies is that from a whole-of-landscape perspective, there is very little additionality under the scheme. Land clearing is happening now. But the harm of that land clearing is being offset with basically vegetation communities that are already in existence. That implies from a whole State point of view that we are still seeing a net decline in habitat availability.

The CHAIR: Thank you. There are also offsets that can be created, of course, which are all about rehabilitation and planting trees and creating certain types of ecosystems on degraded land. What is your view on that being used as well?

Mr COX: That is recognised by the scheme. My understanding is currently deliberate sort of revegetation attracts very little credits at the moment. The reason for that is, I think, the developers of the assessment method wisely appreciate that there is a lot of risk involved in that. Simply because someone undertakes to restore an area of degraded land does not at all guarantee that in 20 years you are going to actually have something that resembles what might have been there prior to clearing.

The CHAIR: Fair enough. Just one more question for you at this stage. You state in your submission, which is interesting, basically that the high costs of offsetting the impact of developments on biodiversity has given ecologists quite a lot of power in the planning process. I understand, particularly with the changes to the new biodiversity offset scheme and the markets and everything, that the role of ecologists has probably changed quite substantially then in the last 10, 20 years. You said that most of the assessors you spoke to—you interviewed quite a few for your thesis—reported playing an active role in the iterative project planning and design because of the complexity of the biodiversity assessment methodology. Is it a problem that ecologists now have such a lot of power or influence in the planning process?

Mr COX: [Inaudible] that is, on its face, a very beneficial outcome. Certainly, a lot of the ecologists I interviewed indicated that their clients were sufficiently incentivised to, where possible, reduce the biodiversity impacts of their proposed developments, be they sort of housing construction or even large projects. I think that is a good outcome of the scheme.

The CHAIR: Mr Maslen, in terms of your experiences as well, I am particularly interested in drawing out the influence that ecologists can also be under now, because they have the potential to cost developers, obviously, a hell of a lot of money but also make other people a lot of money in terms of what they recommend as the offsets that are needed. Hence the influence that can potentially be there. Mr Maslen, do you have a view on that?

Mr MASLEN: Yes, from two perspectives. I worked as a council officer, heading up their environmental assessment team within local government in their development application [DA] section for 12 years. I found, working from an ecology point of view, even as a council officer, you could actually change developments quite dramatically. Working with the ecologists in those situations, you could actually improve the way in which initial developments were actually proceeded with. That goes from where there were mining sites, which I had involvement with, or subdivisions and so on. Working with what I call responsible applicants, you could actually get some quite improved outcomes.

From a pure ecology assessment time—I have worked in that sort of a field for a similar 10 or 12 years as a consultant, more from a combination of ecology and environmental engineering, which is really where my strength was—once again, you could work with your clients to actually change the way in which developments actually proceeded and the way applications were put in to actually achieve a better outcome. Many developers would take heed on that. There were others which I would rather not talk about. It can work both ways.

The CHAIR: Thank you. Mr Cox, before I throw to a Government member, do you have any comment on that?

Mr COX: Generally, the assessors I interviewed indicated that the pricing incentive within the scheme was really what was driving developers to attempt to minimise the footprint of their projects where possible. I think that pricing incentive is potentially quite powerful.

The CHAIR: Thank you. I will just go to Mr Franklin now, from the Government.

The Hon. BEN FRANKLIN: Thank you very much, Chair. Thanks to you both for being here. Mr Cox, just one question to you if I may. I am interested in your recommendation in your submission, recommendation 4:

The BCT should list additional information on its public register to show both the compliance status of active BSAs and to show the number and type of outstanding credit obligations within the BOP.

As someone who has obviously spent a lot of time focusing on this field, why would that not be happening now? To me this seems like a no-brainer. But I may not understand why that should not be happening. Can you enlighten me?

Mr COX: Sure. Thank you. Obviously, at the present moment the conversation trust maintains a searchable online register of existing stewardship sites. But available information on that register is pretty limited. It basically lists the stewardship site, ID number, I think, the local government area [LGA] and sort of broad ecosystem type. It does not really give information on the number or type of credits held at each stewardship site, which, I think, is a pretty serious omission. Also, as I indicated in my submission, it does not give the public much of an idea on the compliance status of individual stewardship sites. Obviously, I think it would be inappropriate to publish the names of landowners, that sort of thing. But in the interest of public disclosure, it is probably in the public's interest to be able to say at a glance there are 10,000 koala credits under management, of which 95 per cent are compliant, 5 per cent are not going forward, things like that.

The Hon. BEN FRANKLIN: Thank you. That might be something we will take up with the BCT. That is an excellent suggestion. Thank you very much.

The Hon. PENNY SHARPE: Thank you very much for your submissions. They are both extremely helpful. This is a very complex area. Mr Cox, you managed to make it actually sound comprehensible. I really appreciate that. I actually wanted to ask you about your recommendation about the BCT being empowered to set the price of the biodiversity credits. Can you just unpack that for us and how you see that would work? What are the barriers to that happening? As we have said, there is a lot of money slushing around in all of this. So I am just keen to work out how you can actually establish a framework to do that.

Mr COX: Developers who pay into the trust pay a rate set by the biodiversity offset price calculator, which was formerly under the control of the Department of Planning, Industry and Environment [DPIE]. That was a sort of econometric model that purported to look at past trades—add a security risk amount as a sort of

premium. The idea behind that is it would be fair to developers and that they would not be disadvantaged by paying something too different from the market rate but also give the trust some confidence to secure offset sites. Obviously, with the really limited amount of trading that has taken place, that price calculator is not exactly giving reliable price signals.

Usually in a market, people who want to buy credits—in this case developers—would have to basically outbid each other to purchase the available credits that are supplied. Given there is such limited supply of a lot of different types of credits, that offset price calculator is basically acting like a price ceiling. That is not what it was intended to do. I think at this point something like \$40 million has been paid into the fund. So the trust now owns that offsetting obligation. But it is not clear that the prices which developers have been paying over the last few years are actually sufficient for the trust to then approach landowners and actually meet those offsetting requirements. That is the big risk going forward. If the trust had much more control over that pricing mechanism, they would at least have the confidence with any obligations paid or shifted to them that they would be sufficiently resourced to actually meet them in the future. But I understand that is a model that is being developed now by the BCT and the Department of Planning, Industry and Environment [DPIE], I think to be released early next year.

The Hon. PENNY SHARPE: Thank you. That is very helpful. Maybe it is one for Mr Maslen as well. I understand we basically have these species-based markets. Are there other models elsewhere? Or is there a different approach where we can try and simplify that? As someone who is not across the detail about how this all works, I do find it odd when there is a greater glider offset versus, say, an orchid offset that is in the same area and how that works. Is a landscape approach better? Are there other models that we can look at? Or is the scheme designed so you have to do it this way?

The CHAIR: Who wants to answer that one? Mr Maslen?

Mr MASLEN: I doubt if I could make much comment on that, I am sorry. I have the same dilemma. From Mr Cox's submission, I think he is probably much better positioned to make a comment than I am.

Mr COX: There is a huge number of credits that are recognised by the scheme. I think there are approximately 1,400. That is, I think, about 980 individual species credit types and then about 350 vegetation trading groups, which consist of multiple vegetation types that are treated as equivalent. So it is obviously quite complex. Any individual offset site though can host a whole range of credits. Obviously, vegetation assessment is at the core of the biodiversity assessment method [BAM]. But threatened species which are verified to also live in an offset site, that offset site will generate credits for them as well. So offset sites and development sites do stack multiple types of credits. Does that answer your question?

The Hon. PENNY SHARPE: It does, but it just seems like a very complex way to do it. I am just wondering if anyone has been able to nut out a slightly more streamlined version. Maybe it is just the case that that is not possible. When I think about the work that assessors are doing and the way that it is with many different types and how that all comes together, it just seems extremely complicated, that is all.

Mr COX: It is definitely a complex policy, but I suppose that is a reflection of—it is also quite an ambitious policy in the sense that with the BAM they are trying to create, and have basically succeeded in creating, a one-stop shop assessment methodology that can be used to measure impacts and gains at every ecosystem in New South Wales. It is obviously such an ambitious project that complexity seems to be an inevitable by-product of that.

The CHAIR: Nature is a very complex system, isn't it? You are basically trying to offset very complex, beautiful ecosystems. We will go to Mr Justin Field now.

Mr JUSTIN FIELD: Thank you, Chair, and thank you both for your attendance today and your submissions. Mr Cox, this continues on from Ms Faehrmann's previous question and your response. The BCT is trying to work out how to take on the calculator to make more accurate assessments of likely costs. My understanding is that the BCT reassessed its offset obligation holdings and is about \$11 million short in what money it has taken in versus what it expects to have to pay out to acquit those obligations. That suggests to me that the price of credits is actually going to have to go up in order to allow the BCT to acquit those. But, of course, we have seen a push from developers and some within government to try to make the costs of offset go down. How does this work? Am I right in assuming that inevitably to offset those impacts the cost of credits will have to go up?

Mr COX: That is certainly my view. I think the cost of having a stewardship site or offset site appraised by an assessor, a 20-year management plan developed for the landowner, and to actually implement that—the costs of that process are probably higher than what was first anticipated and that certainly implies that credit prices should go up. It is obviously in the interest of developers to have a surplus of credits on the market that can be cheaply purchased, but I think the truth is that at this point in the market there is significant demand on the part

of developers for credits because they are required by law to offset the impacts that they cause. The real bottleneck is supply. I guess the scheme is a market at its core. When you have high demand and limited supply at least to me that implies that credit prices should rise.

Mr JUSTIN FIELD: That would seem to make sense. I am not sure what proportion of the offset scheme is actually done through the BCT at the moment. There is a lot of focus on that but I think it is a minority portion of offset requirements that are acquitted through BCT. It has only acquitted about 20 per cent of its currently held obligations and it tries to net it out over five years. Do you think that is suitable or should the BCT be trying to acquit its credits more quickly than it is?

Mr COX: On that first point, my understanding is that it is actually opposite. My understanding is the balance of developers are paying into the fund and are not securing their own stewardship sites because that can be quite costly, it is not their core business and it takes quite a while. So they opt to pay into the fund if they cannot find the credits available for sale. On that point about the five year lag, it is hard to say. I think some lag is probably inevitable. I think it makes sense if the BCT to some extent pools resources from multiple developers and then pursues a more strategic offsetting approach. But certainly what we see now is the risk that there is this growing offset gap where they have got \$30 million or \$40 million in the fund and, as you say, significant balance of the offset obligations on the books have not been met yet.

Mr JUSTIN FIELD: Thank you for that. If we have time I do want to come back to you later, Mr Cox. Mr Maslen, I am particularly interested in your submission where you highlight concerns around transparency, particularly with major government projects. You cited the Pacific Highway upgrades on the North Coast. I would be interested to put those specific questions to the Government on notice on your behalf when we have them before the inquiry. Just on the transparency question, can you expand on your submission? Is it your understanding that there is no specific information available about how the offset requirements for the Pacific Highway upgrade were actually offset?

Mr MASLEN: Basically, there was a report given which the public had access to and I summarised that in my submission. The difficulty is—and many of us here in the Lower Clarence, anyhow, have tried to find out just what particular offsets were given. I am afraid I have learnt a lot in reviewing Mr Cox's report and then reading a little bit more. You have educated me quite well, thank you, and I am passing that on to some of my associates. But just trying to find out what happened—and I realise there is a privacy issue with regards to landowners. They really do not want people to know what they are doing with their private properties and that is part of the dilemma. People really do not know how a particular ecosystem has been offset somewhere nearby. They say it is within 50 kilometres of where the original clearing was, but you really do not have any more information.

I am afraid the general mistrust that the community has in these sorts of issues really highlights a problem. I do not know how to resolve it. It is an issue that somehow or other we need to give the confidence to the community that these offsets are actually occurring in a manner that they should, so we actually achieve the offsets for a particular ecosystem that is lost. It is frustrating. I do not have an answer, I am sorry. We have discussed it amongst my associates here and the environment movements in the Lower Clarence and we have not come up with a solution that we can actually propose. So we ask the question but really say, "Help." How do we convince the community that these offsets are actually occurring in a manner that they should to offset the particular losses?

Mr JUSTIN FIELD: Mr Cox—quickly, if I could, Chair—do you have any additional information to add about how we might be able to address those transparency issues? They seem to be more pronounced where they are major State projects.

Mr COX: I made some recommendations in my submission, I recall. I think with the trust to create a register of developers and developments that have opted to pay into the fund, that could be one step. For major projects it is a little bit harder because they tend to be resourced enough in terms of money and staff to actually pursue their own offset ventures. Unless there was a register—if the public register of stewardship sites was improved to include more details of the different stewardship sites under management, that could be one way of doing it if you saw, for example, this or that major project establishing stewardship sites and had information about that.

The CHAIR: I will go to the Hon. Mark Pearson now, who I understand has a question or two.

The Hon. MARK PEARSON: Thanks very much. My question was answered in part by your answer to Mr Field's question. Just listening to this and after having a meeting with the actual Biodiversity Conservation Trust, do you think this whole offsetting [inaudible] question? The reason I ask that question is because maybe it worked and it fitted with the community's concern about protecting species, both flora and fauna, but now there is a concern about protecting species in situ, where they are. When you look at the legislation—the Environment Protection and Biodiversity Conservation [EPBC] Act—it is about not harming animals and flora unnecessarily,

unjustifiably and unreasonably. Do you think this offset scheme as it is at the moment is no longer reflecting the concerns about species, both flora and fauna, in situ, where they are?

Mr COX: I am sorry, Mr Pearson, was that directed at me?

The Hon. MARK PEARSON: Yes, if you think you can answer the question, that would be great.

The CHAIR: Mr Maslen will then jump in as well.

Mr COX: The offsetting is intended to be used as a last resort. It is always preferable to either avoid impacts in the first place and then, insofar as it is practical, reduce the extent of the impact. That is always—even in this policy—the established way of doing things. I think there are concerns that that mitigation hierarchy is not being rigorously followed and that offsetting is at times used to facilitate development that does undertake unnecessary land clearing. I think that is a valid concern.

Mr MASLEN: I would agree with that comment. One of the problems you have in many situations is not so much with the larger proposals and projects but with the smaller ones. In many local government situations, and especially in rural councils like ours, they do not have the resources to actually follow through from the government perspective to actually ensure that these sorts of processes are undertaken. They tend to just accept what the developer has put in his application. Things do not get changed terribly much, although thankfully in my local government area that is slowly changing. With the pressure of various members of the community, we have actually managed to make things be addressed a little bit better. But the end result is that things do not get offset and they tend to actually lose those on-site situations.

It has always been my attempt, both professionally and privately, to actually achieve that very outcome: to protect what is there and to minimise the impacts by changing the way in which that particular project is undertaken. That has been successfully achieved in many situations. Sadly, depending on the actual strength and resources of a particular government area, it does not always happen. That tends to happen more, I think, in rural council areas because they do not have the resources. We have a very big council area with a relatively small population. They do not have the resources to thoroughly address those sorts of issues. So it is a real problem but I do not know what the resolution is when you do not have the resources to actually do the job as thoroughly as you could.

The CHAIR: Thank you. I just want to explore a little. Mr Cox, you have gone into a lot of detail in your thesis around the biodiversity assessment methodology and the way in which species credits are calculated. I will read something that you wrote in your thesis that I just wanted you to explain further so we can get our head around it. On page 33 you wrote that "most threatened species identified were classed as ecosystem credit species under the biodiversity assessment methodology and so impacts to them were simply aggregated into their ecosystem credit calculations for different PCT," which is plant community types. "Despite the wide variety of fauna identified, case studies therefore only generated actual species credits for between one and four individual threatened species." You were trying to use that to identify a problem. The floor is yours to talk about the issues there in terms of any recommendations you would make and why this is such a problem around a lot of species being identified but then classified differently in the BAM.

Mr COX: That is right. In my thesis I obviously looked at a selection of case studies drawn from large projects that had very involved assessments, and it was quite common for assessors to identify many hundreds of species at a given project site. But, as you say, species credits generally are only awarded to a relatively small selection of the species that have been demonstrated to be present. I found that process was heavily dependent on the judgement of assessors. That judgement was not completely arbitrary. They had to justify in the assessment reports why they were including or excluding different species. That could be because of habitat quality or the like.

The number of species credits are—on one hand, there are 980, so there is already quite a large number. But the majority of threatened fauna species, as you say, are grouped in. They are assumed to be present in given plant community types, so impacts to them are not assessed individually in terms of credits for those species, which from a scientific point of view is obviously questionable. Although I appreciate that on one hand the BAM as an assessment methodology is trying to facilitate rigorous ecological surveys but on the other hand the market is already suffering from the high transaction costs of the assessment method itself. I think the BAM in some ways is trying to find a balance between the thoroughness of the ecosystem assessment and the need to generate credits for threatened species that are present at a development site.

The CHAIR: I will go to you as well, Mr Maslen, if you have any comment on that. You said that the assessors in some ways really have to use their own judgement in terms of how they then interpret what they find to plug into the BAM, how they will categorise what they have found, and there is a lot of subjectivity to that. Does that mean there needs to also be some kind of an independent oversight body, accreditation or somebody

else peer reviewing what goes on as well with this? It comes down to that question around the amount of power, if you like, that assessors now have. Mr Cox, I will go to you and then, Mr Maslen, there is this question and the previous one for you to answer as well.

Mr COX: Certainly the process of assessment is dependent on assessor judgement. I found in some of the examples I looked at that assessors made reference to available scientific literature on the distribution of threatened species, but part of the problem here is that for many threatened species so little is known about their distribution. That is particularly the case when it comes down to individual populations. Assessors tried to make use of what was there, but they are operating to some extent in a knowledge vacuum. When it comes to the accreditation of assessors, the assessors I interviewed indicated that the accreditation process was quite rigorous. My understanding is that there are only about 400 accredited assessors in New South Wales at the moment and I think one-third of them work for local and State Government.

The feedback I got was that realistically you would need to be a field ecologist with at least five to 10 years of field experience. There were a lot of ecologists who are quite experienced but who do not have the vegetation identification skills needed to actually reach accreditation. On the question of accreditation, I think that is already quite a rigorous process. When it comes to peer review, most of the assessors I interviewed indicated that even when accredited—obviously they work in firms and they do consult each other within the firm—a lot of these assessment reports are co-produced by a number of people, and stewardship site proposals are reviewed by the BCT and development proposals are reviewed by the consent authority, whether that is State or local government.

The CHAIR: Yes, the review within the firm is often because the company is contracted by the proposed developer—the proponent. That is probably not the independent thing that I was asking, if you get my drift, in terms of that potential conflict. Mr Maslen, I asked the species credit question earlier, if you have any comment on the BAM itself, and then I asked about the way in which assessors undertake the work.

Mr MASLEN: I do not have any real personal experience with actual assessments for the BAM. But as far as assessments in general, I speak of this in three counts—one as a council officer assessing such reports; secondly, as someone who ran a company or a division in a company who did those sorts of reports; and, thirdly, as a private citizen. You see reports come in where they go to a site and they effectively do a site inspection. On many occasions they send one officer. These are from quite well-respected consulting companies. They spend one day on site and then they do a desktop review and write their reports. It is generally totally inadequate. In many cases you need to get seasonal reports, too. Sometimes you have got to do those reports over a long period of time, especially with things like migratory birds and the like. You go there in the middle of winter here in, say, the Clarence and you will not find half the species that potentially are there, say, in spring or early summer. So those reports are quite inadequate. Consequently you end up with reports that really do not reflect the true situation. If those reports are accepted, it really gives you a false impression of what that site is.

When it comes to local governments again, quite often they do not have the expertise within that local government area to really fully assess those reports because they just do not have the broad range of staff to be able to do that. As a consultant, if you are doing a job properly you send teams of people in depending on the size of the project. The smaller the project, the more senior personnel you have got to send in there to actually do those assessments because they generally have a broader range. But they come back to the problem that Mr Cox said, that, especially when it comes to assessing plant species, there is a real expertise in that. Theoretically, I had that expertise once upon a time but, because I moved up in the hierarchy of management, I lost that expertise because I was not out in the field often enough. You have got a real problem with getting proper assessments done and the costs involved with doing that—and it can be quite expensive. Many developers do not want to actually do that work.

Government projects like the Pacific Highway do a much more thorough assessment because the project is big and it can afford to do that. I have been involved in big projects assessing dams and things like that, where we were able to actually cost those sorts of things in to do the job properly. But the smaller the job, the less thorough assessment is done, and potentially you get this death by a thousand cuts where you get a dozen small developments side by side. If you assessed it as one block, you get a very different answer. You have a real problem in trying to get proper assessments of different jobs. The smaller the job, the bigger the problem.

The CHAIR: Thank you. I will just check in with Government members. Ms Cusack, do you have a question? Your video is not on.

The Hon. CATHERINE CUSACK: [Inaudible].

The CHAIR: No?

The Hon. CATHERINE CUSACK: I have a question, Chair. My apologies. Sorry, I struggled a bit there. I just wanted to ask Mr Maslen what the solution to that was, particularly in relation to his comments about some councils having more capacity than other councils. Does that reflect on rural and regional areas, which tend to have smaller councils but probably have more habitat and biodiversity issues?

Mr MASLEN: Yes. That is a real problem. For example, I worked in Redland City Council, which had an area that was probably about 25 per cent of Clarence Valley Council, where I now live. I had a team of four people plus myself to do those assessments just on a development application [DA], in a population that was probably four times the size of Clarence Valley. Clarence Valley is a big area and exactly as you described where they have much more habitat and multiple different types of habitat and they just do not have the resources to fully assess those sorts of problems. It is a real issue in rural communities where you have large areas and small resources for a council and very small environment sections to do those sorts of assessments. They struggle. I know a lot of those people here in Clarence Valley, for example, and they get very frustrated with their ability to do that and then be able to feed that information back up through the DA process.

I do not know how we solve that problem because it comes back to sheer financial resources and, if you like, the rate base of a particular council. We end up losing areas on a progressive basis because of those sorts of problems. I do not know how we resource assessing authorities like a local government to be able to do the job thoroughly to really get the result that we are all aiming to do through this process. I do not know whether there is an easy solution without extra funding from some unknown source, and there are never enough resources around to do the job properly.

The Hon. CATHERINE CUSACK: I do need to press you on this because obviously this is a very important problem to solve. Are you basically saying it would require additional resources? If there were additional resources, what would we be doing with those resources?

Mr MASLEN: There are two problems. One is that the actual assessment is done properly in the first place, and some of those are directly proportional to what a developer is prepared to spend. We had a subdivision here, for example, in the Clarence Valley in the lower areas where there are large wetland areas. It was a one-day assessment at the wrong time of the year to assess those migratory birds. Basically, the assessment was quite superficial. The comments from the community had a lot more information than the people doing the actual ecological assessments. Surveys had been done by quite expert ornithologists over a period of 20-odd years and none of that was taken into account. Basically, the development went through and it was approved with no real assessment of those migratory bird impacts. That is just one example.

The local officers did not have any expertise in that area. They made comments that they thought it was inadequate and that was the end of the discussion. It was a very flawed approval, in my view, for those particular reasons. The actual bird populations of that particular site were never assessed thoroughly. How do we stop that sort of thing? As far as I am concerned, if the actual local government had a bit more information available to them in a proper scientific way, they could make a stronger case to assess that project properly. As I said, in most situations when I was working for local government, I had a good team of people. We had multiple skills within the team. We were able to do very thorough assessments because of the expertise we had in that team. They had much more resources. How does a council that is a relatively small population base actually resource that sort of facility? They do not have the resources to do it.

The Hon. CATHERINE CUSACK: Can I also ask, is the developer needing to resort to outside expertise to get these reports done? For example, in a case like the Clarence Valley, the cost of bringing somebody in would be putting pressure on the developer's project costs as well.

Mr MASLEN: Directly. There is not necessarily anybody that is in close proximity here in the Lower Clarence, for example, to actually do those sorts of assessments. I think in this particular case they brought somebody in from Brisbane, which is a three-hour drive away. It was a relatively small four-lot subdivision in a rural area. The end result was that the assessment was not done thoroughly. They could only afford it on a small project like that, which had a big impact on these wetlands. I do not know what the solution is because the developer for such a small project cannot really afford \$50,000 to do a proper assessment over a number of seasons to actually get the right result. It is a real catch 22. Unless the local government have a lot more databases to do those sorts of assessments and have that data at their fingertips so they can review the reports in a thorough way, we go around the circle again.

The Hon. CATHERINE CUSACK: Are you talking about more habitat mapping—sorry, Chair, if I am going over time.

The CHAIR: We are just at time. Please proceed quickly, Ms Cusack.

The Hon. CATHERINE CUSACK: You are talking about empowering or resourcing councils to do more habitat mapping, particularly in areas identified as critical. Would that be—

Mr MASLEN: That would help. I think those sorts of resources would be better done from a State basis. If we had environment departments do those more thorough things on a broad basis across the State, and then have that material accessed, it would be a far better outcome than having each individual council doing their own assessments. Because the State has much better resources and the expertise to be able to do that sort of thing. If we had much better mapping available across the board there would be multiple benefits from that. The community could have access to that so they can do their own assessments and have confidence that things have been done properly, the local government would have access to that with the few resources that they have there, and the whole process would work in an improved manner.

The Hon. CATHERINE CUSACK: There might be more certainty for the developer, as well.

Mr MASLEN: That as well. They have got access to it because they can employ their consultants. There are some good local consultants that could work on that basis if they had the data available. I think that would be a real positive.

The CHAIR: Thank you very much. I am sorry to butt in, but we are at time, unfortunately. Again, that was an incredibly useful session. Thank you both very much for your expertise and answering our questions as we get our head around this very complex issue.

(The witnesses withdrew.)

(Short adjournment)

SAUL DEANE, Urban Sustainability Campaigner, Total Environment Centre, affirmed and examined

BARRY DURMAN, Member, Save Sydney's Koalas, sworn and examined

BRIAN WILLIAMS, President, Wilton Action Group, sworn and examined

The CHAIR: I welcome our next set of witnesses. Is there anything you wish to add about the capacity in which you appear?

Mr DURMAN: I am also the co-author of Campbelltown Koala Research and Database and also President of the National Parks Association Macarthur Branch.

The CHAIR: Do any of you have opening statements for the Committee?

Mr DEANE: I would like to thank the councillors for inviting me to appear at this inquiry. My name is Saul Deane from the Total Environment Centre, as I just mentioned. I am here because of the uniqueness of the south-west Sydney koala population. In a very bleak landscape for koalas, it is the one very bright and largest group that is thriving. Lendlease Gilead stage one biodiversity certification is a case study in the collapse of bio-certification, and I am going to talk mainly to that. Before I go on to that, I would also like to highlight that the Walker and Landcom developments that are also happening out and around Macarthur and Wilton are being fast-tracked and that has meant that they have been able to bypass any koala protections at all, including bio-certification. While bio-certification has process, at least there is some compensation for habitat removed, which is not what we are seeing with Walker and Landcom projects.

Gilead and Lendlease is important as it highlights the breakdown in bio-certification. Gilead is this precious colony and what is so important about it is that we know how vital it is for the koalas' survival. We also know that it is actually been incredibly well studied. It is probably one of the most well-studied corridors perhaps in New South Wales if not Australia. Lots of people know Noorumba and Menangle Creek, which is out in the middle of nowhere. We have had the chief scientist's report. We have even very early on had the draft koala plan of management that looked at the importance of this corridor.

The only time that we started to get any inkling that there was a denial that this corridor was important was first when we had Lendlease and RMS, in an aside in a paragraph, say when they were talking about the upgrade of Appin Road that they did not think east-west corridors were important for koalas. That was not inside the brief. Then, really surprisingly and concerningly, that report or that idea then turns up in the *Conserving Koalas in the Wollondilly and Campbelltown Local Government Areas* report. Why that is really important is because that becomes the go-to report for the biodiversity certification process for Gilead.

I would like to tender, if I can, the biodiversity certification recommendation report, dated 28 June 2019 and signed by Anthony Lean, that references the process they went through for bio-certification if that is okay. Concerning the Conserving Koalas report, even though the two reviewers of this report that was written by OEH, in-house, un-authored, refuted its conclusions, the only important part of the report is the conclusion, which basically says that koalas and people cannot coexist and, therefore, koalas will have to be removed from the landscape west of Appin Road. It calls for exclusion fencing running all the way down Appin Road, and from that purpose it has sometimes been characterised as a localised extinction plan. Its aim was to stop koalas going into the future developable land west of Appin Road.

There are wider implications for this report too. It has basically written the New South Wales koala policy for the Macarthur area and so there is a bio-certification process that is going on with the Cumberland Plain Conservation Plan. This report is pretty much underneath the report that is informing those discussions, even though we now have other reports that have completely rejected it, which are obviously the chief scientist's and the most recent Campbelltown Koala Plan of Management as well. But the real bizarreness comes with the perverse outcomes that this Gilead bio-certification process created. That is that in the same report and at the same time they are approving koala biobanks going through this BAM process they were also arguing simultaneously in that recommendation that koalas should not be able to reach these koala biobanks. So they have negated the whole point of the koala biobanks in this completely schizophrenic report.

The other issue is the bio-cert is now being read that no other koala protections are necessary across the Macarthur area. What we are seeing now is that Lendlease out at Gilead is putting in new planning proposals. They are completely up-zoning Gilead. We are now seeing the idea of 10-storey developments going up there. They are increasing their density and they are also removing internal bio-banks, and all this stuff is being cut as well because those bio-banks were not part of the bio-certification process. It was essentially a land of—this is a certain amount of land; it was a non-spatial, non-contiguity type of report.

This obvious absurdity breaks down as soon as it is lifted out of this Planning/Lendlease nexus, which we would expect. We can see that in the Campbelltown local planning panel, to their credit, when they looked at the Gilead earthworks development application [DA], imposed a 250-metre koala corridor south of Menangle Creek. The Federal Government too, when they looked over the original bio-certification process from NSW Planning, rejected the Noorumba Reserve part of the precinct, because you cannot get there—you are not meant to as part of that bio-certification process—and also because there was no sense of additionality to it. We now await stage two of this bio-certification process. But if we want koalas to survive, we need to increase koala protections and we certainly need to make bio-certification a stronger process.

My recommendations are really that we acknowledge this obligation to land, not only for farmers but also developers, and that we reward those that do the right thing. I think a way to do this is by explicit setbacks that follow all creeks and rivers, especially when we are dealing with really important biodiversity corridors, and that we certainly need to keep an overarching body that is overlooking New South Wales planning and bio-certification processes as well. Thank you.

The CHAIR: Mr Durman, do you also have an opening statement for the Committee?

Mr DURMAN: Yes, please, in the time that we have left. I have been interested in conservation for some 35 years. In that time we have seen many changes in the laws governing our local landscape. The inquiry into the integrity of the New South Wales biodiversity scheme is welcome. The scheme is meant to be leading to an overall gain in biodiversity, but it is accomplishing the opposite: a net loss. The biodiversity assessment methodology does not give enough consideration to the importance of protecting wildlife corridors. It only requires proponents to measure the impact on vegetation, not the cleared area around it. It also ignores the fact that threatened animals, like the koala, are quite solitary animals that leave their mothers to disperse and find their own home ranges.

Professor Robert Close, who discovered the Campbelltown koalas in 1986, found that the average home range for a female koala is 26 hectares. By way of an example, Francesca, tracked for 11.4 years, used an area of some 590 metres by 842 metres, which covers 24 hectares. But Charlotte requires 70 hectares. Home ranges of koalas do not necessarily overlap, but the ability to disperse is of utmost importance. Over the years this recovering koala population has branched out throughout this catchment. Any development, even on cleared land, in areas identified as koala habitat should be calculated for biodiversity offset purposes, and probably development should not be approved on areas identified as koala habitat or corridors.

In our submission I also highlighted that when the land is granted biodiversity certification, planning authorities are not required to consider the environmental impacts on future DAs on the land. This can lead to poor biodiversity outcomes if circumstances significantly change or new information comes to light. Since Lendlease received bio-certification for its Mount Gilead stage one development, the critical importance of the east-west corridor of the property has been confirmed by government-sponsored reports. The Chief Scientist and Dr Phillips confirmed that the koalas need multiple east-west corridors. Corridors on Mount Gilead provide the shortest distance between the Georges and the Nepean rivers. The removal of trees, whether they are paddock or bushland, impacts the functioning of these corridors. Nevertheless, Lendlease was allowed to offset them with monetary contributions to enhance existing habitat or by purchasing only marginal-quality habitat in west Appin.

This is as far, far away as you can get from like for like, and it compromises the chances of survival of the local population in an area that is now earmarked for 55,000 homes. One thing that you may not be aware of is that this koala population—obviously everybody knows it is chlamydia free and expanding. In the last proposal for submissions from the State, it also stated that it is the only one. There are only two populations, this one and Gundungurra, which are expanding. The one at Gundungurra is now in decline. So that makes this population very, very critical in making sure that it is done right. Thank you.

The CHAIR: I think Mr Brian Williams may have joined us by telephone. Can you hear me, Mr Williams?

Mr WILLIAMS: Yes, I can, Madam Chair. Thank you. I am sorry about this. I am not sure what has happened but I will have to do it by phone.

The CHAIR: That is okay. It is your words that matter. Thank you for your submission to the inquiry. Do you have a short opening statement to make?

Mr WILLIAMS: Yes, I do. I would like to thank the Committee for the invitation to address this critical inquiry into the integrity of the Biodiversity Offsets Scheme. This inquiry takes on a real urgency in view of the biodiversity destruction we have seen in Australia from the recent Black Summer bushfires. The fires had a major impact on our Wollondilly shire from the Green Wattle Creek fire, which was of unprecedented ferocity, and now

recognised as driven by climate change. The immense damage done to species now makes preservation of species in unburnt areas a top priority.

Wilton Action Group [WAG] was formed in early 2018 by professionals to advocate for a far more environmentally and ecologically responsible development in the State-led Wilton Growth Area, a proposed city of 50,000 people and 15,000 homes. This new Wilton city sits above the critical and pristine upper reaches and headwaters of the upper Nepean River, which enters the Sydney Basin and has a great number of threatened and endangered flora, fauna and aquatic species around it. The development still has unanswered questions on how yet to be designed water supply and waste water systems will impact on the entire Hawkesbury-Nepean river system—so much so that Wollondilly Shire Council has just voted on 22 September unanimously as the consent authority under the Sydney Region Growth Centres State Environmental Planning Policy [SEPP] that it is not satisfied with Sydney Water's infrastructure servicing at this time, following detailed input from WAG.

Our work with organisations like the Total Environment Centre [TEC] and the Environmental Defender's Office [EDO] NSW to protect the local Wilton koala population has had limited success: limited because of deliberate avoidance of any bio-certification, real koala protection or biobanking by developers before or after the rezoning of South East Wilton and North Wilton—a process that has also taken place in the adjoining village of Appin. Any biodiversity offsetting responsibility for Wilton is now transferred to the Cumberland Plain Conservation Plan, still to be released. We will explore the implications of how that has occurred in relation to the Committee's terms of reference on what is essentially a scheme which has increasingly not been able to and cannot deliver required offsets. We will also explore how much greater transparency is needed for public confidence in the scheme to be restored. Thank you.

The CHAIR: Mr Deane, your submission states on page 12:

The privatisation of the environmental regulatory framework used in Biobanking (and rezonings and DA applications) has created a systemic conflict of interest in regulatory oversight, and an incestuous relationship between; consultant - client - authority. In the Macarthur area the major players are: Ecological Australia – Walker, Lendlease – NSW Planning.

"Incestuous relationship" are pretty strong words. Do you want to expand on that a little bit and why you wanted to highlight for the Committee in particular?

Mr DEANE: [Inaudible].

The CHAIR: Start again, Mr Deane; you are on mute.

Mr DEANE: It is the saying of the year, is it not? Just letting you know, in terms of when we have been engaged with projects—so you say NSW Planning, say there is a koala roundtable, or we are doing something with the Cumberland Plain Conservation Plan. We are often being shown around and being told something, and then you will find that person—they are part of the NSW Planning maybe, yet they used to work for Eco Logical Australia. They sometimes have worked on the things that you are looking at in that role. I do not think it is actually natural—it is just an issue here. It is like that issue that comes up whenever you are having people move between or in very specialised areas, that they become—it is not necessarily always nefarious or anything; it can just be that they are very specialised, so they know stuff, so you want to talk about this. Their skill set is very well—can be shopped around in a very restricted area. What it does mean is that when you are looking at something, you are not always sure that the opinion is completely free and fearless, so to speak, in what is being talked about. You do not know the whole background of where these opinions have come from and where they have been generated previously. They can become issues and often you do not find out about it until much later because that is the process. There is an inherent conflict with this.

The CHAIR: I am looking at your submission again. The New South Wales Minister for Energy and Environment made a commitment, or promise, or statement that he wants to double koala numbers by 2050. Of course, he is now the Treasurer as well. But you have just said in your submission and your opening statement that NSW Planning has basically fast-tracked the residential development for Walker in Appin in koala habitat—so smack bang in koala habitat. Then Planning has removed the need for koala protections to be followed, such as the biodiversity certification and offsets to cover the losses of koala habitat. To be clear on this, NSW Planning has enabled the company, Walker, to develop in koala habitat and has said it does not have to worry about offsetting that koala habitat. Is that right?

Mr DEANE: As far as I can see—and I am welcome to be corrected. First of all, the one that went out for Macquariedale, that project, which has now been expanded into that area—the original proposal that went before the Wollondilly Council was rejected. But in that rejection there was a bio-bank offset for it. So at least they were saying, "Well, we are going to remove some koala habitat here, and you will have to get it over there." And that proposal was rejected because, again, they are thinking about the contiguity in the corridors, so there is something else rather than just habitat, which is often the problem with bio-certification. But in the most recent one I have seen, there is nothing in the reports that I have read that they have to offset that amount. There is no

bio-bank offset for what they are removing. Basically, they are just removing koala habitat and area. Then, on the other side, they are just saying, "It's okay for koalas, because we are not going to remove this bit. So everyone should be happy." There is no give. The whole point of bio-certification in that point—at least there was a semblance of like for like, and that seems to have been removed. Yes.

The CHAIR: I wonder, Mr Williams, whether you wanted to comment? I will go to you as well, Mr Durman, on this. This is quite extraordinary. We know that we cannot lose any more koala habitat and there is a requirement, even if some of us do not agree with it, if you clear koala habitat, to at least offset it. But the bigger developers, like Walker and Lendlease—is it true that in south-west Sydney, where we have our best koala population, that koala habitat is being removed and the Government has allowed these developers to remove koala habitat without necessarily offsetting it? Mr Williams?

Mr WILLIAMS: Yes, this is correct. In our understanding, Eco Logical Australia, who was mentioned in *The Guardian* reports, did an original assessment for the Department of Planning and Environment [DPE] called the Greater Macarthur Biodiversity Assessment. On page 17—and I forwarded that to the secretariat this morning—it showed significant red flag areas for flora and fauna conservation right down through the Wilton Growth Area as well as the greater Macarthur. However, in 2017 the DPE commissioned Eco Logical Australia to deliver a new biodiversity study for the purpose of informing, then, the Wilton Land Use and Infrastructure Implementation Plan—it is very wordy. Both reports show a large area of Walker Corporation's land being constrained by the land area of the priority conservation land. But in the report's conclusion on page 30—if you have it in front of you—it confirms the proposed conservation network includes all land identified in the bio-conservation lands, except for an area in the southern extent of the Wilton Priority Growth Area [PGA] where there is no vegetation. And that is where the finger of land in South East Wilton, including koala habitat, was located.

Its vegetation was dry native grass—core koala habitat. And by this discrete action in that study, it was enough for the Department of Planning to strike out this conservation area and redefine it as urban-capable land in their Land Use and Infrastructure Implementation Plan [LUIIP]. It was a big, no-cost win to Walker Corporation. We also note that the reviewer for the 2015 study was Steven House, who was mentioned in *The Guardian* articles and quoted in our submission. Definitely, this was configured to be enabling of the developer not to have the constraints and offsets arranged. So, that is what has occurred. Mr Saul Deane is correct.

The CHAIR: Who did what there, do you think, Mr Williams? You have explained what happened in the facts. Who did what for whom, if you know what I mean? You are suggesting that the report was changed to facilitate development, right?

Mr WILLIAMS: Yes. That is what it appears to be. I always use that qualitative thing. I would say that basically the Office of Environment and Heritage [OEH] took the lead in trying to make sure that the critically endangered and threatened species across the south-east area, which were defined as such under the Threatened Species Conservation Act and the Commonwealth Environment Protection and Biodiversity Conservation Act—and the fact that there was a very limited, about 1 per cent of the entire forest there, which is shale, sandstone transition forest—all of this was a critically endangered ecological community, which would be most impacted by the development, and it was not abundant in the region. The Office of Environment and Heritage had a meeting on site, which I sent you the details of, of who was there in the onsite GIPAA document from DPE. That was discussed but Walker Corporation therefore came to the conclusion and presented the conclusion that it was not viable for Wilton South East to proceed without this particular finger of land being included in the urban capable definition, which Eco Logical Australia had delivered in the 2017 report.

They had that powerful submission coming then. Following that meeting on site in March 2017, the Office of Environment and Heritage did a submission to the DPE for the need for a bio-certification on Wilton in the priority growth area, as it would deliver better environmental outcomes and all this sort of avoiding impact on environmental values, including biodiversity, was the fundamental planning principle. But they also warned what would happen if this was not done. You would need a comprehensive ground truthing consideration of threatened flora and fauna for the impacts to be considered. Then subsequently the OEH recommended against rezoning Wilton South East because of the 373 hectares of shale transition forest there, and also because of the very adverse impact on koalas. However, South East Wilton was rezoned subsequently on 13 April 2018.

A lot of this issue about how it was done and the meetings with Daryl Maguire, Walker Corporation, the Chinese developer with then Anthony Roberts, the Planning Minister, were laid out in a speech by Mr David Shoebridge on 26 September 2018. He concluded that from what he presented there was something rotten in Wilton and south-west Sydney. This has meant that the result of rezoning priority conservation land as "urban capable" has meant that Walker Corporation do not have to fund bio-certification and biodiversity offsets, and that it now falls in Wilton to the draft Cumberland Plain Conservation Plan to be the instrument for Wilton to

achieve some sort of bio-certification by the growth centre SEPP, the development control plan [DCP] announcing in 2019 that the Cumberland Plain would now carry forward any bio-certification for offsetting potential for that.

The extraordinary thing in all of this, of course, is that, given the detailed assessments by OEH and Wollondilly Council and other experts, this is just a failure of the planning process in an area of really high conservation value and biodiversity in a greenfield site with huge potential impacts on cities water and air quality, because the Cumberland Plain forests here are vital lungs for Sydney outside the metropolitan area. We say why could Wilton not be declared an area of outstanding biodiversity value by the Minister under the Biodiversity Conservation Act?

The CHAIR: I am conscious that other members will have questions as well. Mr Durman, do you have anything to add? Ms Sharpe, do you have questions for these witnesses?

The Hon. PENNY SHARPE: Yes, I do, not a lot. Thank you very much for your submissions and your ongoing efforts in trying to save this important koala population that is at the pointy end of land-use conflict in the State. It is a big issue. Thank you, Mr Williams, for taking us through a potted history of the decision-making in relation to these matters. I have a broad question that may be for Mr Deane: How is it possible that OEH—it no longer exists; it exists in a certain way within the broader Department of Planning, Industry and Environment [DPIE]—can be finding all of these issues but they are not being considered, or they seem to be being ignored in the planning process? I am happy for all of you to have a go at this one. I know it sounds like quite a naïve question, but the public generally think, if they listen to the Minister, that we are trying to protect koalas. I think they would be extremely shocked to know that no offsetting has been able to happen and there is a kind of constant change. That is a very long question. My real issue is: Where is the failure in our environmental agencies within DPIE being able to have influence on the planning process?

Mr WILLIAMS: Could I have a go at that?

The CHAIR: Yes, please.

Mr WILLIAMS: Mr Deane, you can weigh in if you want to. I would just like to say that the whole conceptual model of this is after the fact. It is like it has kicked the can down the road, seems to be the philosophy of the Government on this. It is described by one former member of the Government as a handbrake on investment. But in fact—I will not go into detail of this—we cite in our submission the millennium assessment, which was a global thing, a very important assessment for biodiversity that was done quite a few years ago. That essentially says that you have to integrate biodiversity planning into business strategies at the very outset. And that is not what we see here. In spite of the attempts by the OEH to put the key issues that need to be resolved before you do any rezoning, they are not listened to because that would incur higher costs and it would include offsetting in a very high level of biodiversity conservation value area like Wilton. This is where it falls down, I believe. The inability of people within the Government who have the role of defending the environment in a sensible way and balancing it with economic growth are not being listened to in spite of the strengthened validity of their case.

Mr DEANE: The overall issue I think has become that in essence NSW Planning has become the ministry for residential development. By becoming that residential development and seeing that as the primary goal of planning, it seems to have moved aside other really important considerations or devalued them or seconded them. Certainly around Campbelltown, the koalas arriving in that area is like an economic godsend in a way. It has the potential to turn around Campbelltown's economy, provide sustainable long-term jobs, connection with their heritage or something. The only tool or prism through which everything gets seen, even in that area, when something like the golden goose arrives, is how does that fit with housing, how does that work with residential where you have got an economic driver here, which is residential development. Other ideas have a much harder way of permeating through that mindset. You do seem to get OEH lorded over in that sense by, I guess, planning. Hopefully that has changed a little bit I think more recently. But that has certainly been the case pre-COVID.

The Hon. PENNY SHARPE: I have one more question. I know during the koala inquiry there was some discussion of this within the biodiversity offset issue. Something that concerns me greatly is the double dipping in relation to offsets, where things that are already set aside for preservation are now being used again as a secondary offset. I know there are some specific examples around Wilton, but also more broadly across the Campbelltown area. Could you take the Committee through what is happening with those?

Mr WILLIAMS: I have an answer. Really briefly, Madam Chair, the problem is the lack of data at each site and the investment to regularly map the changes in the areas of vegetation, which leads to double dipping. The current Biodiversity Conservation Trust [BCT] databank does not contain anything like the detail as the former biodiversity register. But you need data which is detailed to show how conditions imposed on developers are actually implemented on the ground. It was a requirement of the biobanking scheme framework that the Government develop a publicly accessible spatial viewer of biodiversity conservation commitments to avoid

offset double dipping. Development began on this vital tool but has lapsed, and as a key offset integrity measure we say the proposed biodiversity investment spatial viewer should be urgently introduced now, because restoring the greatest possible degree of public visibility on all operations of the scheme is the only way that any misconduct, malpractice, or indeed corruption, will be effectively contained. A scheme of this very nature is intrinsically vulnerable to interference from higher levels, we submit.

Mr DEANE: I think Gilead, as always, is a great example of how bizarre this gets. First of all, Noorumba Reserve was the big one; I think 150, 151 koala credits were put aside for that. Noorumba Reserve had been a bushland reserve for 20 to 30 years before it applied to be a bio-bank. It already had koalas in there. Koalas gained not a single tree from that bio-bank experience. The only people that gained from that, I think, was about \$5 million for Campbelltown Council. Hopefully, if that was meant to be that they bought that to acquire land somewhere else, there might have been a benefit for koalas more broadly, but certainly not for that area and not for those koalas, which is when we are talking about the corridors that are so important.

The other thing where it gets really bizarre, is on Gilead you could effectively remove half the habitat and then apply for biobanking for the other half to compensate for the ones you have just removed. It would look like you are actually improving the bio-bank and protecting all this koala habitat, but it would just remove half of it. You apply half of that to the biobanking on site. And that is what is happening in Gilead at the moment. They are biobanking in the red flagged areas as well to compensate for other koala habitat that they are removing on site. So bizarre.

Mr DURMAN: One of the other things that I find troublesome is in Gilead it is going to be like a gated suburb. That is, there will be koala fencing all the way around to stop the koalas going in, which is the new way of doing it. But inside that area are a few bio-bank areas. There is one area that has got koala credits. Now, I find it rather alarming that you can actually have koala credits on a bio-bank site that will not be used by what the credits are for, which is koalas. I find that rather strange.

The CHAIR: You will have koalas on the other side of the fence looking longingly at their favourite koala feed trees, unable to get there, Mr Durman?

Mr DURMAN: Yes, precisely. What we really need, and I have been trying to promote this, is if you are looking for koala corridors you have to look outside of the fence. You need to not look inside what is being discussed as open space and a nice corridor for birds, which is good, but you have to look outside the fence and see what is going to be left for a koala corridor. At the moment it is now less than what it was in the beginning.

The CHAIR: I will go to Mr Justin Field, who has questions as well.

Mr JUSTIN FIELD: Thank you all for your submissions and evidence today. This question is probably for Mr Williams in the first instance. Obviously, the rezoning in the Wilton Growth Area, you have outlined in some detail how the biodiversity certification process that has been applied here has been co-opted and massaged to suit. It was never the intention for these biodiversity certification processes to happen after rezonings; it was supposed to be a process that happened upfront. At the moment do you have any certainty at all what biodiversity offsets will accrue for the rezoning that has been approved at Wilton?

Mr WILLIAMS: No, the only thing I can say is that the Wilton DCP has mention of the Cumberland Plain Conservation Plan. It actually mentions this, about what can be done. The language that was used in that was really about, this will be the instrument for the future land development—this is 2019—which is happening now. The main objectives were to address costs of offsetting on development viability, identifying conservation areas and providing certainty for the development industry. Any future land development in the Wilton Growth Area and infrastructure will need to avoid areas of high biodiversity values where possible, and then implement strategies to mitigate avoidable impacts. Clearly, this goes back to what the OEH was on about with Wilton in terms of the total package of biodiversity value and the need to do bio-certification. But I am not aware of any announcements about that and we are waiting to see what the Cumberland Plain Conservation Plan final version actually delivers in respect of this.

Mr JUSTIN FIELD: What ability do you have to engage in that process? This has been some time coming, it has been delayed, obviously a lot of the growth and development that is planned is going to be managed or mitigated through this strategic biodiversity certification for the Cumberland Plain. How engaged are you in that process? What opportunities have you got to engage in that process? What if it comes out and it just entirely fails to provide for your region? What recourse is available, given this is supposed to happen upfront?

Mr WILLIAMS: I think it is in the court of the public at that point for people to understand the impact of what that will mean. I pointed out about the lungs of Sydney in relation to the Cumberland Plain transition from shale, sandstone transition forest, et cetera, here, the destruction of koala habitat. We will have a very strong advocacy in response because we have already set up and understand that this now being the default for

bio-certification we have to keep engaged with it. We have tried that with Mr Deane and the TEC and the EDO on the koala front when Walkers claimed commercial in-confidence for their koala plan of management. There is still none, a koala plan of management. There is a shire-wide thing that was supposed to have been announced by the council, but I think it is held up with koala SEPP issues that have not been resolved and probably we may see all this in the Cumberland Plain Conservation Plan.

I would put a plug in for something else. There is a town in Wilton in the United Kingdom, which has a very different approach to community engagement, in which the submission is just the starting point for the community, where the local council works with the community right through to the final decision, which is then put back to a referendum. I would suggest we need something that really does encourage local decision-making like that, but we have not got it. Thank you.

Mr JUSTIN FIELD: This is probably for all of you: Do you support the biodiversity certification process? It has been used in a very limited way so far. This is the only strategic one. There are only a handful of other biodiversity certifications, but I am seeing that more and more being used by developers where they hold a parcel of forested land and say, "I want to develop this section." They put up to the Government, "We will protect that other section that we have." So we still see that net loss. Do you support biodiversity certification as part of the offset scheme?

The CHAIR: We will go to Mr Deane first.

Mr DEANE: I think this is complicated. The problem with the biodiversity certification scheme is that it is non-spatial. So it is a bit like it assesses confetti across the landscape. As we move into a situation where fragmentation is becoming much more of an issue, if we are not putting down some sort of sense of corridors and connections right at the beginning, then these things are just being slowly taken and you have this problem of chasing diminishing returns. You are removing this. Where are you going to try to find that? Those are the ones being developed, so you have to try to put it over there. Then that gets developed. It keeps them getting chased and you are trying to find where the next one is, in a like-for-like situation. That is why I can see the conditions applied to biodiversity certification rapidly getting weaker and weaker. We have already seen this. First, there was no double dipping, then they were not allowed to use existing government land, and so on. But all those ones have slowly fallen away as they have found the problem of trying to find it.

Where it would work is if you were to say in combination with a little bit of rehabilitation. I am very careful about using that because removing established, mature trees and then replacing them with future trees is problematic. But if you have setbacks or vegetative riparian setbacks and so on and you know there is a corridor going through there, if there was a reduced rate at which bio-banks could be offset into that area, then at least you know you are growing the open space. That is what is really important—that we need to grow the open space. At the moment it is just declining all the time, so I have reservations. The thing about it is that previously you could remove habitat foliage and there would be no recompense—you would either agree to it or not. I guess the idea of some sense of funding for something that we have inevitably lost is not necessarily a bad idea but its application becomes so important and that is where it needs to be very rigorous and transparent. There is always a problem when you create a government market about who has the knowledge, who has the insights and who has those connections in order to sell onto that market.

The CHAIR: Thank you. Do Mr Williams or Mr Durman have anything to add?

Mr DURMAN: When things come up for biodiversity certification I think a lot of the public do not understand what it means when it comes down to basics. I know a lot of people in our group do not understand it. Here we are trying to save one area but we destroy another one. To me, basically 50 per cent of what you are trying to save will be gone because you cannot protect one area and then say, "We will destroy that area and we will protect that one over there", because then you are 50 per cent down. That is the way I feel about it. Bio-certification by its name should be something that we look at. We need to look at the overall picture. At the moment there is a good chance to put in a proper corridor between the Georges River and the Blue Mountains but it has not been looked at because once it all gets bio-certified and all that swathe of land goes, there is no chance.

What we are doing is always on the catch-up—that was done 10 years ago or that was gazetted five years ago. It always comes back to old documentation that was put in place years ago when people did not really know what was there. Now we know what is there or could be there. There is a development called Kellerman Drive that never had any koalas on it but it was koala habitat. It went to the Land and Environment Court. The judge decided with Robert Close that maybe koalas will be there in a few years and in a few years' time, there was. There was a female with a joey on that site. So although places do not have the animals living there that would certify that area, if they are linked, they should come there. We do not know what was there 50 or 100 years ago because it was all wiped out. So now they are expanding they are only going back to where they were. That is the problem. We do not know what was there, and they are expanding. With the Blue Mountains we have coming,

we do not know. So those are the variables but developers want an answer now and they say, "We want it done here."

The CHAIR: Thank you, Mr Durman. We are out of time. Mr Williams, did you want a very quick word?

Mr WILLIAMS: I just want to reinforce what I said about the data and the transparency that the NSW Chief Scientist has advocated in the recommendations for integrity of water data. The same thing should apply with biodiversity offsetting. What Mr Durman and others have talked about is showing that biodiversity offsetting is encouraging clearing in more fragmented landscapes and offsetting in more intact landscapes. That increases the loss of already heavily impacted ecosystems if the policy does not restrict offsets to the same ecosystem types of those impacted. That does not include revegetation, which has been shown to be ecologically unsound.

The CHAIR: Thank you very much. Unfortunately, we are out of time. Thank you all for your submissions and appearing before this important inquiry and for the work you do, particularly for south-west Sydney's koalas. The Committee will now break for lunch.

(The witnesses withdrew.)

(Luncheon adjournment)

JEFFREY BULFIN, Managing Director, Deep River Group, affirmed and examined

JACK JEFFREY BULFIN, Director of Operations, Deep River Group, affirmed and examined

BRYAN JENKINS, President, Environment Institute of Australia and New Zealand, affirmed and examined

The CHAIR: We will commence with opening statements. Do either of the witnesses for the Deep River Group have a short opening statement for the Committee?

Mr JACK BULFIN: We do. Good afternoon, we represent the Deep River Group. Our company provides holistic real estate development services and we have extensive experience in development projects involving bio-credits. Earlier this year we wrote to landholders and developers who use the Biodiversity Offsets Scheme and requested that they complete a survey and contact us about their experience. We collated the responses and prepared our own analysis, which formed our submission to this Committee. The Deep River Group is proud to support the New South Wales Biodiversity Offsets Scheme and we believe that promoting and protecting biodiversity values is of paramount importance. Our submission concludes that the digitisation of the Biodiversity Offsets Scheme marketplace will improve participation in the scheme by investors and landholders, stimulate investment in the scheme, simplify the transaction process, facilitate faster and more efficient transactions and promote transparency and accountability.

Ultimately, it is our position that modernising the scheme will trigger a paradigm shift. Such a shift will yield significant benefits for landholders, developers, investors and, most importantly, biodiversity outcomes. We believe that the credits should be attractive to buy and hold—not purely for developers and the Government to purchase and retire. Our company has built marketplace software utilising blockchain technology for which we believe the Biodiversity Offsets Scheme would benefit enormously. However, we are advocating for the change irrespective of who the Government may partner with to move forward. In summary, our submission advocates for the Biodiversity Offsets Scheme to remain; however, we support the modernisation of the scheme to improve participation, increase efficiency and build trust, transparency and accountability.

The CHAIR: Thank you. Mr Jenkins, do you have an opening statement as well?

Mr JENKINS: Yes, I do. The Environment Institute of Australia and New South Wales Zealand [EIANZ] submission indicates, firstly, support for the Biodiversity Offsets Scheme; secondly, suggests some adjustments to improve the operation of the scheme; and, thirdly, indicates the need for changes in the regulations to improve the management of potential conflicts of interest for environmental practitioners operating within the scheme. While our submission includes contributions from many senior New South Wales accredited assessors who are knowledgeable in the operation of the scheme, none of them were available to be present today. Spring is the busiest time of year for ecological work, and that, combined with the easing of lockdown restrictions and backlog from the lockdown period, has meant substantially increased demands on their time to fulfil their consulting requirements.

I am very familiar with biodiversity offsets, having introduced a mitigation banking scheme for the Main Roads department in Western Australia when I was chief executive of the Department of Environmental Protection. However, I am not an expert in the operation of the New South Wales scheme and will likely need to take questions relating to the technical aspects of the scheme operation on notice. EIANZ supports the mitigation hierarchy in the Biodiversity Offsets Scheme of avoidance of impacts wherever possible, mitigation of impacts and compensation of remaining unavoidable impacts through offsets. The Biodiversity Offsets Scheme [BOS] provides an incentive to avoid and reduce impacts, provides biodiversity management in perpetuity and is scientifically robust. There are, however, adjustments that would improve the operation of the scheme.

We have a concern about its increasing complexity. For example, there is variation in the entry requirements into the scheme, and simpler and consistent triggers for the BOS across all types of approvals would be desirable. There have been significant issues with the Biodiversity Offset Payment Calculator, which provides a costing for the proponents to meet a biodiversity credit obligation via payment to the Biodiversity Conservation Fund. We note that the Biodiversity Conservation Trust [BCT] is working on changes to those costings. We support that, subject to robust governance processes being put in place to avoid potential conflicts of interest being developed prior to the BCT taking on that role. There is not clear advice on the capital gains tax implications of stewardship sites. In particular, tax liabilities can be incurring years in advance of the sale of credits, which can be a disincentive for participation.

In some instances, we see that it would be desirable to provide flexibility in the scheme to facilitate better threatened species management, such as broadscale pest control rather than just management of a specific site. We also feel that it would be preferable for biodiversity certification approvals to have a clearly defined and transparent process for minor amendments to development or conservation boundaries, particularly where

information becomes available after the initial decision on the biodiversity certification. While the regulations define a fit and proper person, they do not provide an adequate basis for managing potential conflicts of interest in the biobanking process for environmental practitioners. The process needs to ensure that the professional integrity of practitioners can be demonstrated in relation to commercial transactions in the process. That is needed to protect practitioners, government and the public interest. We are interested in discussing with the New South Wales Government the development of rules and guidelines to provide clarity to situations considered to be potential conflicts of interest and appropriate mechanisms to deal with such situations.

The CHAIR: Thank you. I will kick off with a couple of questions. My first question is to the Deep River Group witnesses. Thank you for your submission. It is good to get a submission from those of you who are operating within the market and the detail that you provided is very useful to us. Thank you for undertaking the survey and participating in this inquiry. One of the recommendations that you have made is that the Office of Environment and Heritage consider implementing solutions that would increase market insights and transparency in the transactions of the Biodiversity Offsets Scheme marketplace. Could you expand a bit upon that? Why is that needed and from your perspective how does the marketplace operate?

Mr JACK BULFIN: Certainly. To start with, the transaction register, which is publicly available, does provide some analytic insight into the market. However, it is not sufficient for the bio-credits to be useful as an investment tool. Beyond that, the pricing calculator and the systems that allow a developer to analyse what the price may be for a credit are significantly under-resourced; the frequency at which those prices update is insufficient; and, beyond that, the capabilities that are necessary to understand where a price should be are not enabled. For example, if an entity transfers credit for an unusually low amount of money—and that might be because they are moving it from one entity to another—those low transactions are all recorded in the pricing scheme because it does not filter out those transactions, which means the price that is displayed to a user is quite significantly incorrect.

Beyond that, the transaction register provides a single Excel sheet that you can export to search the transactions and trends. In the case where there might only be one transaction for a credit, you do not have any insight into the market sentiment for those credits—where the market truly believes the price to be. Our recommendation is about increasing the update frequency so that prices are updated either in real time or near real time and providing more versatile and robust information for people who want to use the scheme. That might include more information about the parties and their previous transactions, the terms of the actual credits and the volatility of the marketplace for those credits—previous highs and lows—in a more robust and useful manner.

The CHAIR: Thank you. We are hearing that basically because of that the market is undervalued because the Biodiversity Conservation Trust has these credits for landholders but there is not enough incentive for landholders with native vegetation and certain ecosystems on their land to conserve that land with those credits. What you are suggesting will increase the cost. Is that correct? If the calculator was operating in the correct way, those credits would be a lot higher because there would be a market that would be in some ways incentivising more trade, so most credits should actually be higher than what they are. Is that your interpretation of this? If what you recommend happens, would those credits increase in value?

Mr JACK BULFIN: I cannot speak to whether most credits are undervalued or overvalued, but we do believe that with greater market participation and greater activity in the marketplace—we think a system like that would increase the likelihood someone would engage and the credits would definitely have more value. If not in a dollar-for-dollar way, they would have more value because they are more of a liquid asset that a landowner can sell.

The CHAIR: Is it your experience that there are people out there owning properties who are keen to participate in this market but they are not getting the value that they want and there is a kind of missed opportunity? Because we heard that earlier this morning. Is that your experience?

Mr JACK BULFIN: My experience would be that the complexity of registering a site is so complex that the average person could not participate without significant guidance from lawyers, ecologists and, in my opinion, financial advisers. As you say, the cost to a landowner is far higher than just the cost of what they are not able to do on that site if they agreed to protect the vegetation. The cost is in the trust deposit and, as Mr Jenkins said before, it is in the taxation of it as well. There is a very high cost and with stimulated market activity there would be a way to provide some kind of comfort to those costs so that more landowners would get involved.

Mr JUSTIN FIELD: Thank you all for your attendance today. I have a couple of questions, which sort of fall out of some of the information we heard this morning—just by way of background. There is a transition going on of the calculator to the BCT that I think was referred to by the Deep River Group. We know that has been delayed, but some of the offset payments that have been made to the BCT in the past have recently been revalued. They have to revalue their liabilities regularly and there is a substantial shortfall now between what has

been paid and what they expect to be the cost of acquitting those offset obligations. That would suggest to me that this transition would probably see the cost of credits going up. Is that your understanding of what is likely to happen as a result of this transition and, if not, how would we see those costs being maintained at the level they are at the moment?

Mr JACK BULFIN: I think the value of credits over time will increase as with any market. But the bio-credit market is very much subject to the same forces of supply and demand as any market. With a more efficient process and more people able to participate in the scheme, the supply can increase as well. With that occurring you see a price stabilisation that will revert to the market's growth that would have occurred irrespective of a change to the system, so that you are balancing the supply of increased participation of landholders with the demand from an increased participation from investors and developers.

Mr JUSTIN FIELD: That increase in supply, which is ultimately going to stabilise the market, would have to be stimulated by making the process of assessing easier and would be limiting the technical expertise that would be required. But that would challenge the integrity of the system, would it not? How would you possibly make that easier? Even if there was demand in the system, being able to reduce the cost of establishing the credit value of particular land is a technical process, right?

Mr JACK BULFIN: Yes, the process for assessing is technical and I cannot comment on whether that methodology should be changed. That is probably a question better suited to Mr Jenkins. In terms of maintaining the integrity, there is a lot of bureaucracy and processes that are inefficient that are not part of the assessment part—it is part of the administrative work of the registration and the sale. The number of parties within the department and the government involved in the administrative side creates a significant slowdown and inefficiency in the market, so optimising that does not come at the cost of challenging the integrity of the market.

Mr JUSTIN FIELD: Mr Jenkins, do you have anything to add to that?

Mr JENKINS: Certainly the advice from our accredited assessors who contributed to the submission would agree with the concern that the complexity and the taxation treatment are disincentives. If we want to expand the supply then reducing the complexity, having consistency of triggers and making certain that it is much easier for people to participate in the scheme would be highly desirable if you want a greater supply and a greater willingness of people to invest in land for biodiversity purposes.

Mr JUSTIN FIELD: We have received submissions that recommended that the BCT option for acquitting offsets be reserved for smaller developers where the costs of producing their own credits are prohibitive with stewardship site production and market credit purchases enforced for larger developers. How do you feel about that recommendation?

Mr JACK BULFIN: I think that recommendation would present a number of challenges. I think that, where possible, market transactions are preferable for the scheme because you get the best biodiversity outcomes and the best economic outcomes where market transactions are utilised. The BCT offering a ceiling price plays an important role in controlling the overall market. I think that you would be more likely to see the prices have issues if the BCT option were only available to smaller developers.

Mr JEFFREY BULFIN: Our view is that the BCT's involvement should be there as a backstop in the event that the credits that somebody is after to purchase are not available in the free market, rather than divide it up and try to find some dividing line between what is a big developer purchase what is a small developer. If the credits that a developer requires are available in the marketplace, our view is that they should be forced to work in the marketplace and look in the marketplace and be active there rather than just simply default to the BCT. The BCT should really only be there in the event that the credits are not available and their lack of availability would otherwise prevent their development from proceeding.

The Hon. CATHERINE CUSACK: I come back to some remarks Mr Jack Bulfin made about the pricing and the fact that it is distorted by some transactions such as an internal transfer of an entity transferring credits to another site. Were you referring to that information going into the calculator deflating the price? Have I understood that correctly?

Mr JACK BULFIN: Yes, that is correct. Essentially, there is a number of transactions that occur and there can be a whole range of reasons why.

The Hon. CATHERINE CUSACK: I wanted to ask why someone would do that. That was essentially my question.

Mr JACK BULFIN: Essentially, it could be that there is some kind of arrangement between the landowner and developer. The developer might also be the credit holder. With those reasons, it is not necessarily that the transaction is undervalued, it is just not an arms-length transaction. At the moment there is no way to filter

out the non-arms-length transactions from the register. It is particularly complex when the entities shown on the register have no indication that they are related to one another other than for someone experienced in the system to isolate the price and say that it is not likely to have been an arms-length transaction.

The Hon. CATHERINE CUSACK: When you say "arms-length", do you mean competitive?

Mr JACK BULFIN: Yes.

The Hon. CATHERINE CUSACK: So they need to filter out the non-competitive transactions in order to know what the actual competitive market price is.

Mr JACK BULFIN: Yes.

The Hon. CATHERINE CUSACK: Would underpricing in an internal transfer be for a tax benefit?

Mr JACK BULFIN: It would purely be for a cost benefit. The transfer has to have some kind of consideration for it, so it might be a \$1 transaction for \$1 million worth of credits.

The Hon. CATHERINE CUSACK: Yes. Why are they doing that? What is the benefit to them of doing that? Does that not alter the price of both properties—the one the credits are coming from and the one they are going to?

Mr JACK BULFIN: Yes, when it is a situation where it is a developer, their development consent will require them to retire a certain number of credits. Assuming they own the site, they may choose to transfer those credits to the entity that is doing the development and then retire those credits in the development entity. In that circumstance, the retirement is registered on the register and the transfer is registered, and there are a whole host of reasons—as you say, it might be tax, it might be a liability that they want to isolate risks between a long-term asset holding and a short-term investment. But those transfers are on the register and they are noise to what the real market prices is.

The Hon. CATHERINE CUSACK: How would you modify the register to screen those out?

Mr JACK BULFIN: In my opinion there should be a way to indicate on form for the transfer of credits that the transfer is to a related party and have two registers. It is important to know where those credits are going for transparency and accountability for all transactions, but it is also important to have an honest, fair terms pricing—so if you have another separate register item that is for the competitive market.

The Hon. CATHERINE CUSACK: I come back to your response to Mr Field's questions that ideally these offsets should be used as a last resort when the developer has tried but not been able to source offsets outside that fund. I am trying to understand the impact of what the price calculator tells you is the market price for offsets, which we have just agreed is a bit distorted. How is that impacting the price of offsets outside the biodiversity scheme?

Mr JACK BULFIN: Outside of the scheme entirely?

The Hon. CATHERINE CUSACK: Yes. It seems like developers are finding that going straight to the scheme is more financially attractive because the price has been deflated in the scheme. Is the price of offsets within the scheme affecting the market outside the scheme? Is there a relationship between the price of offsets inside the scheme and the price of offsets outside scheme? I am guessing there would be.

Mr JACK BULFIN: I would not think the pricing calculator is lower; if anything, it is higher. A developer may go straight to the scheme because to facilitate transactions is very complex. For example, if you need 6 different types of credits then you might go to 30 different landowners to be able to fulfil that transaction and each one has its own contracts, its own terms and has to go through its own administrative process. To answer your question directly, I cannot provide an answer about whether that would impact it simply because to model that kind of an impact would be comparing apples and oranges with those different offsets and mitigation strategies. It would be a very complex study to measure the relationship.

The Hon. CATHERINE CUSACK: Just one final question—and I do not know if you can answer this—are Indigenous landowners participating in the scheme?

Mr JACK BULFIN: We have a case study in our submission from an Indigenous landowner. They are participating in the scheme and I am led to believe and understand that their involvement in the scheme extends to them assisting and aiding other Indigenous landowners to engage with the scheme.

The Hon. CATHERINE CUSACK: So if you were to exclude large landowners, then you could potentially be excluding Indigenous landowners from participating in the scheme because they are holding some very extensive land?

Mr JACK BULFIN: Absolutely.

The CHAIR: Mr Jenkins, in your submission on the closing page, you state:

... compared to the previous impact assessment processes without an offset protocol, the BOS results in superior biodiversity outcomes.

Could you explain to the Committee why that is your view? We are obviously getting a number of witnesses who are very alarmed at the biodiversity outcomes under the scheme.

Mr JENKINS: Yes. If you look at what happened prior to having the potential to purchase biodiversity offsets, you would get avoidance and mitigation but you would still get residual impacts on biodiversity. Then it was up to a government decision about whether to proceed. So it meant that prior to biodiversity offsets, you would have negative, adverse effects associated with project approvals. Now there is a requirement to offset residual impacts associated with the project. That ability to offset those residual impacts did not occur prior to having the offsets scheme. So you are actually getting a better biodiversity outcome—not only are you getting avoidance and mitigation that occurred previously, but where there are residual impacts you are getting compensation for those impacts through having the Biodiversity Offsets Scheme. In an overall sense you are getting a better outcome than what occurred prior to having an offsets scheme.

The CHAIR: Yes, but there is also the situation where a lot of clearing is taking place under the proviso that it is going to be offset and then it is increasingly unable to be offset now. I assume that is what you are also pointing out in the situation with the scheme in that it is increasingly difficult for those credits to be retired under the scheme at the moment.

Mr JENKINS: Your point is a very valid one. You need to have available biodiversity offsets if you are going to be able to compensate for the residual impacts. If you do not have the availability of credits then you do not have the environmental advantage of compensating for those residual impacts. Your point is extremely valid.

The CHAIR: I just wanted to get your views as well about whether the scheme could be tightened up in relation to the potential for people who are undertaking the ecological assessment of an area also being able to take advantage of owning land with the credits that need to be sold as a result of the land that they are assessing. That kind of conflict of interest—potentially insider trading, if you like—has been the allegation in the *Guardian*, I understand, that is being investigated. Firstly, is that an issue? Do you know if that is happening? What needs to be done to stop that? Mr Jenkins, I will go to you and then I will go to Deep River Group as well.

Mr JENKINS: Thank you, Madam Chair. We certainly believe that is a major concern. The *Guardian* article certainly highlighted the potential conflict between people as landowners and people associated with the ecological evaluation of the value of the land. Keeping those two separated is one of the key things that is a major concern for EIANZ. As we mentioned in the submission, there is a definition of what a right and proper person is but it does not include the issues around how you manage insider trading. This is not a new issue in other markets. It is one that has not been reflected, though, in the regulations for biodiversity offsets. We are very concerned about that. If you look at the measures being taken by the major consultancies involved in this, they have taken legal advice and they have set up very complicated processes because of this concern.

If there was a clearer definition of what is required, we certainly believe that there are ways of managing this potential conflict. One of the things that EIANZ has done—we have a committee that looks at ethics and professional conduct. They are in the process at the moment of trying to transfer some of the concepts from insider trading for other professional marketplace activities to what would be relevant for a biodiversity offset scheme. But we would rather see a much greater transparency of those processes so that the environmental practitioners who are involved can demonstrate consistency with the management of that potential conflict of interest. And it is certainly a major concern to our members and to the accredited assessors who are involved in the overall scheme. We would certainly like to see improved regulations around defining how you manage to avoid insider trading.

The CHAIR: You have obviously discussed this quite a bit with your colleagues and with your institute. What are some solutions then? Would it be that people who are working in the field in an ecological company, for example, should not own companies or in any way have land that they benefit from and sell to the BCT to gain credits that becomes a biodiversity stewardship site? Does it get down to that level of, "Well, if you are in this game you cannot do that"? What are some of the solutions that you are thinking of?

Mr JENKINS: Certainly that is one option, but that may be unnecessarily constraining. What I think is particularly important is having openness and transparency of people's association with the process. We have had people, both from government and also from the ecology industry, looking at the establishment of sites as being a worthwhile investment, not only from a financial point of view but also from a sustainability point of view. We would not wish to preclude that opportunity, but if that occurred you would need to make certain that the

disclosures were in place so that the whole process was adequately transparent. It is not at the moment. My colleagues at Deep River mentioned the need for greater transparency in the transaction process. I think that also applies to management of conflicts of interests as it does to market efficiency. I think there is a complementary aspect to those components when you are looking at potential changes to get a better biodiversity offset scheme.

The CHAIR: Mr Jack Bulfin, have you got something to say on that as well?

Mr JACK BULFIN: We agree with Mr Jenkins. We believe that generally people do the right thing in the system, but we do need to build the system to be more of a system of disclosure. Transparency is only able to be achieved when you are adequately disclosing people's financial interests and if they have a vested interest in certain sites. There are a number of industries that have been able to adopt the disclosures—even within New South Wales Parliament. Obviously there are the disclosures where there are interests that may conflict. We believe that that can be achieved very efficiently through some form of digital platform, but the scheme should reflect the disclosures that need to be made certainly in a way that is better than how it is currently being done.

Mr JUSTIN FIELD: This goes to the point that you were just talking about in answer to the Chair's questions. And it seems to have been—not exclusively but particularly—a case of conflict of interest for major government infrastructure developments. It seems to me there is a case to be made for better forecasting by State Government for likely future offset requirements well in advance and the BCT playing a proactive role in identifying areas and then engaging landholders and actually having some degree of guidance in identifying well in advance and taking advantage potentially of that identification to reduce the cost of these purchases if there is more forward thinking and planning. Do you have a view about the role that the BCT could play to do better forecasting and identification so we are getting better value, particularly for public money that is being directed towards offsetting public infrastructure?

Mr JENKINS: I think the point that you raise is incredibly valid. You can get a much better biodiversity outcome if you deal with these issues at the strategic level and if you deal with these issues at the landscape scale. Just focusing on individual parcels of land is a narrow component. One of the reasons why the scheme was introduced in Western Australia was for the Main Roads department. They had a 25-year plan for their infrastructure and they wanted to make certain that they had planned in advance for the mitigation banking that they would need. It was not on the market-based approach that exists in New South Wales. But because you have got road infrastructure, which has a degree of flexibility—certainly if it is going to connect to places it has got to have a complete coverage.

Working out well in advance the best way to get offsetting of those residual impacts we would strongly endorse. If you look at developing of biodiversity corridors, that can be achieved if you do it strategically and at the landscape scale rather than just looking at individual sites. So I would strongly agree with the view that you are putting forward. It would be highly advantageous to be planning ahead, and to be more strategic and looking at a broader role of biodiversity offsets and biodiversity management, rather than just site management—looking at it at a broader landscape scale. I think there is plenty of potential for doing that in advance of individual offsets.

Mr JUSTIN FIELD: Thank you, Mr Jenkins. Did either Jeffrey or Jack have any views on this?

Mr JACK BULFIN: We agree that better forecasting and better forward planning would certainly assist in a number of really excellent outcomes but particularly with using taxpayer money more efficiently. One of the questions I would ask is whether the BCT is the best way or the best mechanism to achieve that forward planning or whether there are other avenues that could be explored. I would suggest that one of the big challenges in forward forecasting is actually the available market information and, speaking specifically, that comes within this system. It is quite difficult to forecast when perhaps the last transaction of that particular credit was 10 years previous. I think that improving information and improving the analytics and insights and being able to model the market more comprehensively and more quickly would probably aid in future planning for credit purchases.

Mr JUSTIN FIELD: I know there have been biodiversity offsets schemes before that have related here. But largely this is still relatively new—five years into it or so. You obviously work with developers. You would have seen biodiversity offsets that were established to offset impacts from development over the past few years. I am interested to know whether or not there is sufficient management and auditing to ensure that those offsets are being maintained and whether the management that is expected to maintain the biodiversity value of those sites is being checked and is being maintained. Can you speak to your experiences of how you have seen those management and auditing obligations, which largely I think sit with the BCT? I will start with the Deep River witnesses.

Mr JACK BULFIN: The management of the biodiversity sites remains with the landholder that set up the site or whoever is currently managing the site, not the developer. In terms of how that relates to developers and to the BCT and management, I would not feel comfortable to give you an answer on how effective it is.

Mr JUSTIN FIELD: So you do not see many situations where the developers purchase the land and maintain the offsets themselves? Largely, that does not happen too often? It is largely with another private landowner? Mr Jenkins, I suspect you might have a view on this.

Mr JENKINS: I cannot respond directly to your question because I have not got the experience of New South Wales. But the team of people who have been contributing to the EIANZ's submission are the people that are doing a lot of that work. I would certainly be happy to take your question on notice and refer it to the people who are doing the day-to-day work in the field in New South Wales to give you a more comprehensive answer. I am certainly not in a position to give you an answer. They certainly would be able to give you their combined advice on whether that is being achieved effectively.

Mr JUSTIN FIELD: Thank you. I would appreciate that.

The CHAIR: Thank you, Mr Jenkins. That would be useful. We are almost out of time. The secretariat will be in touch with you regarding those questions that you have just requested to take on notice. Thank you once again for appearing and for your extensive submissions to this inquiry. We have a very short break until 1.55 p.m., when we will commence our next session.

(The witnesses withdrew.)

(Short adjournment)

GEORGINA WOODS, NSW Coordinator, Lock the Gate Alliance, affirmed and examined

ANNA CHRISTIE, Research Officer, Wando Conservation and Cultural Centre Inc., affirmed and examined

GARY DUNNETT, Executive Officer, National Parks Association of NSW, affirmed and examined

The CHAIR: I welcome our next witnesses. Ms Woods, do you have an opening statement?

Ms WOODS: I do not have anything really particular to say beyond our submission. My comments at the inquiry are going to be limited to how the Biodiversity Offsets Scheme applies to State-significant development and the mining industry in particular. I am happy to leave it there because I am basically going to be [inaudible] our submission.

The CHAIR: Ms Christie, do you have an opening statement?

Ms CHRISTIE: Yes, I do have a few comments to make in addition to our submission. I will not go in detail again into the long history of the court challenges of community activity trying to expose the fallacy of the Maules Creek mine offsets. What I would like to do though is to start at the point where the Wando Conservation and Cultural Centre obtained government information—public access documents—which revealed what was really going on in the background at the Biodiversity Conservation Trust. What we saw basically was—it was not until the Biodiversity Conservation Trust ecologists walked the land of the offsets that they confirmed what people had been saying for years, which was that the offsets were not appropriate for offsetting the Leard State Forest. They had not been mapped correctly. All of this is detailed in the document which is now on the Legislative Council's website.

So not only was the Biodiversity Conservation Trust left begging, apparently, for detailed maps, they had to repeatedly requested digital files in order to properly assess the offsets, that is, Shapefile files. We see these documents, these emails flying around—"We are desperate for the mapping." And we had a real sense from the Government Information (Public Access) Act [GIPAA] documents that the Biodiversity Conservation Trust was being bullied into approving the Maules Creek offsets nonetheless. So a couple of quick points. What we would like as an outcome from this inquiry—we would really appreciate it if the honourable members of the Committee can help to obtain a clear understanding of the transfer of value that is being undertaken in the course of these offsets in the course of destroying the mine and setting up these false offsets. Then we hear repeatedly about the prospect of the offsets being returned to the national parks estate. We keep hearing this but there is no understanding of the commercial nature of the arrangements that are going on.

The second point—and this relates to some supplementary documents that I have provided—is that, when the offsetting took place, they only counted the vegetation that was going to be bulldozed. But what we see now—and you can see in those maps—is that a very large proportion of the Leard State Forest has now become an exclusion zone for three mines that are operating there. That exclusion zone now is in place because the forest is now too dangerous for people to go there due to the mining operations taking place. So it is really questionable whether the actual calculation of even the amount of land that needed to be offset was correct. The second point is that when the offsetting was calculated, a waterhole that was for the use of all the animals in the forest—which was Lawlers Well, which was the only permanent water source in the Leard State Forest—was never offset. So that is really a big shortcoming in the offsetting system because it is not just the vegetation that the creatures rely on. They also needed that water source and now they have to travel—the nearest permanent water source is actually eight kilometres away. I have shown you some pictures there to illustrate. Thank you.

The CHAIR: Thank you for that, Ms Christie. Mr Dunnett, do you have a short opening statement as well for the Committee?

Mr DUNNETT: Yes, thanks. The primary focus of the National Parks Association [NPA] of NSW over the last six decades has been upon the permanent protection of the areas of exceptional natural and cultural significance. We believe the centrepiece of a healthy, diverse planet is a protected area network. That is our national parks, nature reserves, marine parks and other gazetted reserves. We regard the permanent protection of such areas for the protection of biodiversity as the international gold standard. While many protected areas need to be thousands or even millions of hectares to fully encapsulate the full range of biodiversity values, there are many examples of much smaller reserves, such as the extraordinarily diverse Shiprock Aquatic Reserve at barely half a hectare. Relatively small reserves are indeed important components of the protected area network, offering protection to habitats and species that are naturally occurring within restricted areas. It is that belief in the central importance of permanent protection of conservation lands that leads NPA to conclude that the current New South Wales biodiversity offset scheme is fundamentally flawed in concept and operation. It demonstrably fails to ensure no net loss of biodiversity values of the landscape by regional and State scale.

I will quickly touch on just three aspects of that conclusion. The first is that the current scheme and its predecessors embed the continuation of net loss of biodiversity in New South Wales. The scheme is based on the premise that an agreement to abstain from future development in one area of high biodiversity value could be used to mitigate the destruction of biodiversity values in another area of similar values. The stark reality is that each such transaction diminishes the remaining extent of threatened ecological communities and threatened species habitat in New South Wales generally by half. We are expected to accept that a notional commitment to retaining protected areas represents a net conservation gain, whereas the clear outcome is a reduction in the resilience and future viability of all of the impacted biodiversity values. This bizarre accounting process only makes sense if we accept that the purpose of the scheme is to protect development rights—a concept that we would dispute exists in New South Wales law.

In our view, the starting point for any biodiversity conservation scheme must be acknowledgement that the State has the obligation to protect all areas of biodiversity value and it is only in the most exceptional of circumstances that the destruction of threatened ecological communities or species should be countenanced. If the scheme is to remain in operation, we believe that it is imperative that better statutory mechanisms be developed to ensure that the agreed offsets are permanently managed for conservation purposes, not merely until offset credits expire or the land passes to a new owner. In the absence of stronger mechanisms, the current scheme offers nothing more than fleeting conservation benefits.

The most secure long-term arrangement would be the transfer of offset sites to public ownership and management. A legislative pathway to enable a justly compensated transfer of such lands should be provided along with ongoing conservation incentives for those landholders who choose to retain private ownership. Finally, NPA is extremely concerned about the application of the offsets scheme to the protected area network. There have now been several incidences where major developments have been approved in national parks subject to the payment of offsets. This reflects the fundamental misapprehension of the purpose of protected areas, reducing them to nothing more than the sum of the threatened species they contain and ignoring their primary purpose in protecting the integrity and function of ecosystems and natural landscapes.

Additionally, because there are no private lands containing equivalent habitat to those found in national parks such as Kosciuszko and the Greater Blue Mountains, there is no potential to secure land-based offsets. Accordingly, the approvals have defaulted to financial payments. The Snowy 2.0 and Warragamba Dam projects set an extremely dangerous precedent for the future of the protected area network in New South Wales. A strong signal against development in parks must be incorporated into the offset scheme. One option would be to place an escalation factor on offsets requirements applying to any development in a protected area. NPA would recommend a minimum escalation factor of tenfold to provide a strong market signal against such inappropriate development of our most precious conservation resources. Thank you.

The Hon. PENNY SHARPE: Thank you for coming and for your submissions, which are very good. I have a couple of questions to Ms Woods. Can you just take the Committee through the issue of mine rehabilitation being used as an offset and the way that actually works?

Ms WOODS: Yes, sure thing. This is a practice that we observed beginning probably about five or six years ago. Over those years it has been a bone of contention and the way that it has been applied has changed a fair bit. Initially there was a proposal that, yes, mining companies could be allowed to claim as part of their offset obligation the rehabilitation of the same area, the mine, later in the future when the mine closes, but their proportion of their offset obligation that they could meet doing that was capped at 10 per cent. There was a lot of concern from the agency and from the Commonwealth about whether ecological mine rehabilitation was possible, and whether it would be effective and obviously the time lag between the clearing occurring and the future habitat being created. So it began like that and there was a lot of argument about it and studies being done on various contemporary mine rehabilitation sites. Most of the rehabilitation is still in a fairly early phase. Some mining companies are trying to do more biodiverse plantings on their rehabilitation areas but they are only 10 or 15 years old so their functionality as habitats is still open to question and not established yet.

Then over the years the cap—the quantity of offsets that could be met through mine rehabilitation—was proposed to be raised. Now effectively there is no cap at all. Our view is that this practice is occurring because in reality—and I think Ms Christie's comments on the Maules Creek issue and the Leard forest are related to this—for a lot of the endangered ecological communities and species habitat that is being pushed over for mines, there simply is not intact, good-condition bushland unprotected and available to be purchased and set aside as an offset for many of these communities. It is certainly the case in the Hunter, where there are four nationally critically endangered ecological habitats, two of which are restricted to the Hunter in their extent. So any of it that you are ever going to find still standing is going to be in the Hunter and is going to be under threat from development by mining. They simply struggle to find good [inaudible] areas of remnant bushland that they can create their offset

promises from. It means that they then say, "Well, we cannot find any of this bushland so we are just going to replant it in the future and we will create an endangered ecological community from scratch."

The Hon. PENNY SHARPE: Just to be clear, what is the lifetime of some of these mines?

Ms WOODS: Well, that is also open to a lot of uncertainty, because at the outset they might be getting approval for a 25-year mining operation but what we see in practice is the mines applying for extension projects and expansion projects. Big open-cuts that are operating in the Hunter now have effectively been in operation already for 30-odd years and are all expected to continue operating for another 10 or 15 at least. We are talking about decades before establishment and then, obviously, decades beyond that before you would be in a position to have any kind of functional habitat. For some threatened species like the regent honeyeater and ecological communities like the Central Hunter Valley eucalypt forest and woodland, their extinction time frame is going to come up before that functional habitat can be established and verified. There are a lot of questions being raised about whether it is even possible to do this for endangered ecological communities and it is really quite unresolved.

I will just also say that it was an issue that caused a lot of contention between New South Wales and the Commonwealth because the Commonwealth previously had very clear offset policies that did not allow mine rehabilitation to be used to meet offset obligations. Several mines were going through the New South Wales planning system about five or six years ago and there had to be additional offset sites found to great trouble because the Commonwealth was saying, "It is not acceptable. We are not going to allow this practice to occur." But then a couple of years ago the bilateral assessment agreement between the Commonwealth and New South Wales was amended so that the New South Wales offset policy became the official [inaudible] to a nationally threatened species and communities. Now the practice is widely used. It is widely used but our submission highlights some that are in particular egregious because they are clearing a lot of bushland—like the United Wambo project which got approval to clear 250 hectares of a critically endangered ecological community and the Mangoola expansion project also. Yes, there are a couple of mines that are particularly bad examples of that.

The Hon. PENNY SHARPE: The fundamental thing you are pointing to is that in so many cases there is not a like-for-like offset available and that that is not driven by that. What can you tell us about the monitoring of the offsets that are there?

Ms WOODS: We do not believe that there is consistent monitoring. Unlike for housing developments and a lot of other kinds of development, the mining industry tends to purchase own offsets. So it is not going to brokers trying to buy credits. That does happen but in many instances the companies are buying properties and then promising to set them aside under permanent conservation arrangements. Because the conditions of the mining consents include the provision of these offsets, it is formally part of the review system, like the annual reporting and the compliance. But we find when we read the annual reviews of the mines—the audits are finding that there is weed infestation in the offset site or the offset site still has not been secured five to six years after the approval was granted. There is not any enforcement action being taken against those mines for that breach of their conditions.

Our other very longstanding concern is that it was part of the regional land use plans promise that the Government made when it came into government in 2012 that there would be a register of biodiversity offsets and that still has not been established. So we have just been through the process of mapping for ourselves all of the biodiversity offsets for about 15 coalmines in the Hunter. It was an extraordinarily painstaking process for us to have to go and do that, to find them all. If you were going to do a development, you just would not know where these properties are unless you were intimate with history. So it is pretty hard to imagine that there is effective monitoring being done, certainly by the Government. We have come across instances where a mine assessment has been undertaken and there is an offset in the area proposed to be cleared for a mine and we have been the ones who have pointed it out to the agencies to say, "Actually, this area was supposed to be set aside as an offset however many years ago for a different mining development." There really is not a centralised place where that information is kept.

The other issue about monitoring is that—and this is somewhat tangential but I think quite crucial—New South Wales has kind of underinvested in vegetation mapping and habitat mapping. In the Hunter we are using vegetation maps that are six or seven years out of date and so have not taken account of all of the clearing that has taken place for the mines since that time. We literally do not have data to adequately describe where the threatened species are and how they are faring in the region. That means basically that vegetation—communities have been used as a proxy for threatened species and our knowledge of whether or not that is effective, whether the species are present in the offset sites or present in the mining sites, is fully speculative.

The Hon. PENNY SHARPE: Ms Christie, I am fairly familiar with the Leard forest issues that have been ongoing for a long time, but I am particularly interested in two parts of your submission. One is the issue of

like-for-like and what that practically means in your neck of the woods. I also think the community exclusion from ground truthing is very interesting. Would you like to comment on that?

Ms CHRISTIE: Thank you very much for those questions. I would like to echo what Ms Woods has been saying. In regard to the like-for-like, the difficulty of actually validating our claims is partly due to the fact that you have to trespass to get a detailed look at some of the offsets. However, our group has been to have a look at some of the northern offsets. When I say the northern offsets, we are talking about the offsets that are about 700 metres higher in altitude and about 40 kilometres distant. By the way, what we hear now is that Whitehaven—due to the fact that they are now required to obtain more offsets because finally they admitted in March that they did not have them after dragging the community through this for years and years insisting they did—are looking as far as Tingha. They are looking quite long distances. We went to the northern offsets and what we saw, contrary to the claims that they are going to lessen the amount of grazing—they had actually constructed on one of the properties a massive new infrastructure, a massive shed, and we saw hundreds of sheep there. I will admit this was back in 2015 so we have not been back there since.

It is fairly fruitless to do it because, as I said, you have to trespass and we have a code of not trespassing because of the reputational problems that it incurs. We have a citizen science group in the area called the Leard Forest Research Node and we have done baseline studies into birds. Really it is the capacity that we do not have. We do not have a lot of people to do this kind of work. We think it is, in the future, a really great avenue to use and to validate some of this material. I will say we do have one coal company in the Leard forest that has been very transparent and open and has let us repeatedly visit their offsets. That is the Idemitsu, the Boggabri mine, but that is a unique situation. That is the situation we have got at the moment.

The Hon. PENNY SHARPE: Mr Dunnett, your submission talks about offsets eventually going into public hands. Can I just clarify? Do you mean that if, say, farmers have got this area, you are advocating that at the end of the 20 years or whatever then that would become national park? Can you just clarify what you mean by that?

Mr DUNNETT: There would certainly be some circumstances where that is an appropriate outcome, particularly where it is adjacent to an existing reserve and it makes sense from an efficiency point of view in terms of the management. But the core question is: How do you ensure the genuine perpetual management of these lands? That either means that the State has to say, "Alright, we will take that burden off you for lands which are not available for any form of future development", or you provide ongoing mechanisms that provide those ongoing financial incentives for people to manage them appropriately. But these offsets have no meaning if they are only a transitory phase.

Much like the example you were given just recently about the mining, we have got a number of those situations in places like western Sydney, where we are seeing places that have been offset largely by government departments—the developments such as the M7—now up for destruction and another round of offsetting. So the principle that these things are actually in any means an exchange for the development of the day is becoming just nonsensical. There has to be a genuine commitment that, if they are going to go into that protected bucket, they are there forever.

The Hon. PENNY SHARPE: Yes—or that there are ways to manage that through. We had evidence earlier today around the offsets question and some advocacy from the people and development field around the scheme being open to the free market more broadly. Do you have views about that?

Mr DUNNETT: We certainly have concerns about the proposition that this is anything but a net loss of biodiversity. But in terms of the market processes, if what it generates is places that actually have genuinely higher long-term prospects because of their geographic configuration—all of those basics of reserve design around having areas that have as small a boundary for a given surface area and they are preferably top of the catchment; all of those basic factors that mean that an area can be protected from pests, weeds and edge effects long term—there may be some benefits to that. But the proposition that it is a carte blanche and that all such arrangements will necessarily deliver better outcomes is clearly nonsensical.

The Hon. PENNY SHARPE: I have one more question, if that is okay?

The CHAIR: Yes.

The Hon. PENNY SHARPE: It is the issue of the chronic underfunding of NSW National Parks and the view of the National Parks Association of NSW of national parks in the future being able to be offset sites, which would attract funding to manage them. Do you have a view about that?

Mr DUNNETT: If there is a major component of rehabilitation involved there may be some merit, but that is a relatively small proportion of the protected area estate that would fall into that category. My understanding

is a number of those sites are already being explored for carbon credits so you have got to be careful of the double dipping. But if we are serious about the nation joining the High Ambition Coalition and looking to double our conservation reserves in New South Wales, clearly there are going to be large areas that are in less than optimum condition, so they may be an option for that.

The Hon. PENNY SHARPE: Thank you. That is it for me.

The CHAIR: I will jump in with a couple of questions and then we will go to Mr Field. Ms Christie, I just wanted to pick apart, if I can, your experience with the BCT and DPIE in trying to draw attention to what the community was finding in relation to Whitehaven Coal's offset obligations. You went to a lot of work to try to find out exactly whether it was meeting those obligations. Are you suggesting that there was potentially wilful ignorance, if you like, from any party in the fact that they were not meeting their obligations?

Ms CHRISTIE: Yes, that is how it seems. It does look like it is a protection racket, actually, because there is no other way that you can explain the repeated covering-up of the inadequacies for so many years. This includes, I would say, the ignoring of the responsibilities of the proponent towards the community consultative committee, which was the conduit through which a lot of this engagement took place. Back in 2016 there was the review of what they called the Leard Regional Biodiversity Strategy. This is supposed to be a strategy to manage the cumulative impacts of the fact that there are three mines operating in that forest. At the time I was one of the environmental representatives. We convened a group of independent ecologists and community members and we put together a collaborative submission. What we had to go through to try to get information! We said, "Look, you're asking us to comment on this but we don't have maps. We can't tell what we're supposed to be even agreeing to or commenting on." This went on for quite a long time until one day we heard they were going to give us the maps. It was really exciting. It was like, "Great! We're going to get the maps!" Then when we got the maps it was A4. We were supposed to look at 50 kilometres on an A4 map.

What was so astounding, which probably should not have been astounding, was that when we got the GIPAA documents from the Biodiversity Conservation Trust this body was being asked to make very monumental decisions about approving these offsets on the basis of very minimal information. That went to show that there was something very, very wrong. You were seeing that this was not science-based, evidence-based decision-making; this was some kind of top-down directive, "Look, you have to hurry it up and you have to make that decision." Another interesting feature that was going on is that Boggabri Coal has got the better offsets. We know because we have been there and we have actually seen it. Not only have they got the better offsets—the more like for like—but they have invested more in genuinely improving their offsets, yet for some reason they were behind in the pipeline to get their offsets approved. It might be just a meaningless—

The CHAIR: Just to go back to the "protection racket" allegation or accusation, is it your understanding that Whitehaven had to get offsets, it said that it had offsets, you investigated it and, in fact, those offsets were nowhere near what they were supposed to be? Was the protection racket the fact that some people or the agencies were trying to cover up the fact that Whitehaven did not have the offsets it was supposed to have?

Ms CHRISTIE: I believe the protection racket starts from the moment you approve a project that allows the company to continue clearing even though it is in breach of its conditions. That is the situation. As I understand it, both the State and Commonwealth have no ability now, even though Whitehaven now has a three-year extension in which to secure its offsets to 2024—guess what? They can actually clear the Leard forest again next summer, next February. That is where the protection racket starts—the lack of an appropriate mechanism for compliance. Then the protection racket continues with the obstruction against getting information. Then we see the comments in the GIPAA document with a reference to the Department of Planning representatives saying—I cannot remember the words but they are in the submission—"We are not going to revisit the maps even if they are wrong." I do not know exactly, but it does sound to me very much like [disorder]—

The CHAIR: That sounds like people within DPIE were saying, "We are just going to let Whitehaven get away with dodgy offsets."

Ms CHRISTIE: Well, that is how it looks.

The CHAIR: I have a general question for all the witnesses, and then we will go to Mr Field. I am sure there are more questions. When the Biodiversity Conservation Act 2016 was introduced at the time with the Local Land Services Amendment Bill 2016 and there was this whole reform, the Government at the time, via the Minister at the time who was introducing the bills, Niall Blair, stated:

... a new market-based system will be established for avoiding, minimising, measuring and offsetting the biodiversity impacts of development, with flexible options for developers and strategic oversight by government.

He also stated:

The objectives of these reforms are to arrest and ultimately reverse the current decline in the State's biodiversity while facilitating ecologically sustainable development ...

The objective of the reform was to ultimately reverse the decline in the State's biodiversity. Ms Woods, is the Biodiversity Offsets Scheme working? Is it meeting those objectives?

Ms WOODS: It is working to facilitate development. It is not in any way working to prevent biodiversity decline. It is facilitating biodiversity decline because the offsetting is now the automatic assumption for how biodiversity will be treated in major development proposals and their assessments. They are no longer applying the "avoid, mitigate, offset" hierarchy. The systematisation of offsetting has just meant that the preferred go-to option if you are clearing something is that you go and get an offset for it. In our view, it is hastening biodiversity decline because it is giving a sort of stamp of ecologically sustainable development onto fundamentally unsustainable and irreparable harm.

The CHAIR: Thank you. That was—

The Hon. MARK PEARSON: Sorry, could I just ask a quick question following on from that?

The CHAIR: Mr Pearson, I just want a response from Mr Dunnett and Ms Christie. Is that alright?

The Hon. MARK PEARSON: Yes, sure.

The CHAIR: Mr Dunnett, you essentially said this in your submission so I want to get the view of the National Parks Association.

Mr DUNNETT: It is just a mathematical certainty that if the entire scheme is predicated around finding comparable areas, sacrificing one and the other one is supposed to get some form of permanent protection, that there is a net reduction. Again and again we are seeing with ecological communities that do not have a market available for them that it is actually just turning into a blood-money scheme. That is certainly the case for places like Kosciuszko National Park with the Snowy 2.0 program, because the reality is there is nowhere outside the national park that you can get the same ecological community. There is no option but for the scheme to push you towards a financial payment rather than any pretence that there is in fact an environmental improvement being sustained.

Ms CHRISTIE: Just from a high-level viewpoint, I have to question the role of Treasury in all of this. Clearly in the financial products that are being dealt with in all of this, this is where there is no transparency for us. These calculators that the ecologists use, they say they are science-based, but we have heard at the Commonwealth level previously—there was a 2015 freedom of information [FOI] request, which another group sought and which I saw. I saw desperate emails within the Commonwealth department of the environment who were being pressed. This was in December 2011. They were being absolutely hammered and pressed on the eve of Christmas to approve the Commonwealth offsets. They were saying stuff like, "We've got this new calculator. We don't know how to use it. Please help." Subsequently, as history will show, they did rush and approve it early the following year. At the State level I have also read some of the other submissions on the parliamentary website where the calculator is also criticised for not necessarily representing reality, being difficult to use and, therefore, not leading to sound outcomes.

The CHAIR: Mr Pearson, did you just want to jump in quickly before I go to Mr Field?

The Hon. MARK PEARSON: Yes. I suppose my question is that if the purpose of the offsets is to not cause any unnecessary harm to the environment, including animals, under the Environment Protection and Biodiversity Conservation Act 1999 [EPBC Act], if an auditor-general was asked to do an examination by this Committee as to whether the offsets meet that requirement, what do you think the answer would be?

The CHAIR: Was that question directed to Ms Woods?

The Hon. MARK PEARSON: I am just trying to grapple with these offsets. They seem to have started with one particular purpose and now it has become this totally out of control, incomprehensible monster. If we were to say, "Auditor-General, can you please do an analysis and examination as to whether the offsets scheme is meeting the requirement of absolutely minimising harm to flora and fauna?" what do you think the answer would be?

Ms WOODS: I imagine that one of the key findings if such a report was done would be that there is absolutely no data available that would allow anyone to substantiate that harm is not being done, particularly in the case of wildlife. Most of this system is based on vegetation communities as proxies for biodiversity. We are talking about koalas, regent honeyeaters and much more cryptic fauna than that. In many instances it is not known where they are, how they are behaving and how they are moving through the landscape, so the vegetation communities are used as a proxy for the presence of that wildlife. I just do not think anybody would be able to

substantiate any good being done and I think there would be considerable evidence that there is harm being done, in the sense that there is ongoing habitat loss. One example of this that I often hear in the Hunter region is that people who are having trouble with grey-headed flying foxes are moving into suburban parks. There has been literally thousands of hectares of grey-headed flying fox habitat cleared for coalmines in the Hunter Valley in the last 15 years. Their habitat is vanishing and the bats have to find somewhere to live. The bats, fortunately, are more mobile and able to do that, but for much more sedentary species I feel sure that there would be a great deal of harm found by such an inquiry.

The CHAIR: We will move to questions from Mr Justin Field.

Mr JUSTIN FIELD: Thank you, Chair, and thank you to all three witnesses for your detailed submissions and attendance today. I would like to talk about what we should do about the problems that you have highlighted. Ms Woods, your submission points to an absence of some red lines in the sand here. I point to the NSW Farmers Association's submission, which states:

... a loss of biodiversity due to land management, can be beneficially offset through a combination of social and economic regional benefits as well as strategic environmental protection.

In its submission the NSW Minerals Council states that the offset credits scheme:

... has never matured, and offset credits of the type and quantity required for mining and other large-scale projects are not available on the market.

All of that suggests that perhaps we have gone too far and there should be some red lines. I would like you to comment on where you think those red lines should be.

Ms WOODS: As a preliminary remark, ever since offsetting was first introduced in New South Wales 20 years ago or so the environmental agencies—they have been called different things over that time—have always been attempting to get the notion of red lines recognised in the scheme and have been beaten back time and again in that attempt. Originally under the biobanking scheme they were called "red lines" [audio malfunction]. Once upon a time they were called [inaudible] cannot withstand further loss. Yes, I think there is a term for it in the current one but the definition of it is so tight that you have to have the critical habitat declared. There is very little of that being recognised and gazetted in New South Wales.

As a fundamental, anything that is listed as critically endangered has to be a red line. If you are going to have endangerment listings between vulnerable, threatened and critically endangered then critically endangered has to mean something. It has to mean, "This species is on the brink of extinction and if we continue clearing its habitat it is not going to exist in a few more decades." Those kinds of remarks are made in the conservation advice for these species—for the regent honeyeater. It is being said now about koalas. It is pretty obvious that that is the case. There are species that everybody knows that if their habitat continues to be cleared they will not exist anymore at some point in the future.

Yes, critically endangered species should be a red line. I am not an ecologist so I think advice should be sought from someone with expertise in this, but there are species that have suffered substantial loss of their range or substantial loss of their habitat. They may not be "critically endangered" listed because the listing process is administrative. The fires, for example, wiped out a great deal of habitat for a number of particular species. The problem for New South Wales is that we are not systematically collecting and analysing environmental data so we are continually falling behind in our understanding of which species and communities are on the brink of extinction and what processes are driving them there. There is an anecdotal understanding because we are watching it occur, but in terms of a robust way of developing where the red lines are we really need the data in the first instance.

I would also say that the like-for-like principle has also been removed from the Biodiversity Offsets Scheme. It only exists now for critically endangered entities and Commonwealth-listed species. You are getting a system where certain entities are being lost again and again and again, and offset by things that are completely different. For example, Warkworth Sands Woodland in the Hunter, which only exists in the Hunter region, some 15 per cent of its remaining extent was cleared for one coalmining project and its offset was a critically endangered orchid, a completely unrelated entity in another part of the region. I think that practice also needs to be stopped.

Mr JUSTIN FIELD: I am sorry, we have very limited time. Ms Christie and Mr Dunnett, if you want to provide any comments on notice to that question of where those red lines should be that would be good. I have got one more question and I have to pick. Mr Dunnett, I am just looking at the NPA's submission. I asked a question earlier of some other witnesses about the BCT. It has failed to acquit many of the offset obligations that it has taken on for development. In your submission you suggest that it should be required to do so within a very short time of taking them on—I think it was six months. It currently has a five-year net turnaround time. Could you expand on your concerns about that aspect of the BCT's operations?

Mr DUNNETT: It really goes to the heart of the like-for-like process. There is no substantive gain unless we are actually conserving the communities and the species that are to be impacted by a proposal. I think we had some examples from the coalmining arena earlier about how that can play out over decades. It is not doing its job unless there is a short duration established for the process of securing those offsets. Our strong preference is that we do not have that whole notional securing-an-outcome process that is currently embedded in the BCT, whether it is through the financial mechanisms or whether it is through future purchases. But the scheme is as we have got it at the moment, unfortunately, so we are making our comments in the constraints of the current arrangement.

Mr JUSTIN FIELD: Fair enough. I might just ask one more question about that. It seems to me that what it has acquitted so far—it has acquitted about 20 per cent of the offset obligations that it has taken on over the life of the scheme—all of them have been like for like, is my understanding. I suspect that is getting harder now and it will have to take advantage of other options that are there. It goes to the points that the last two witnesses have made about like for like. At the end of the day, if we cannot do that, do you think that should be a red line more broadly? It is not just about "critically endangered" but, more broadly, like for like should be the line in the sand?

Mr DUNNETT: Certainly from my perspective there is a red line. I agree with the previous comments, but there is a fairly obvious red line there which goes to extinction events. Extinction events apply just as meaningfully to threatened ecological communities as they do to individual species. That like-for-like equivalence, yes, I think it absolutely has to be seen as a red line. If you are going to destroy that Warkworth banksia community, that is an issue that we need to give appropriate weight and recognise that we should not be taking that step.

The CHAIR: Just to finish on that, what we are hearing and what we are seeing with the Biodiversity Offsets Scheme now and the relaxation of it, in allowing more and more development to take place with what seems like fewer and fewer credible offsets, if it keeps going on like this will eventually facilitate extinction of so many different endangered ecological communities and species. There is no other possibility if brakes are not put on it and some serious reform is not made.

Mr DUNNETT: This is already happening. If we look at the approval that has been issued for the Snowy 2.0 project in Kosciuszko National Park, it anticipates making the stocky galaxias extinct in the wild. Their mitigation is to take on a captive population. We have had the New South Wales Government signing off on an extinction event at the same time as we have just gone through the whole trauma of the 2019-20 wildfire event and pushing other species to the brink. This is happening right now. It is not a theoretical proposition at all.

The CHAIR: Thank you. That is the end of our time. Again, I thank you all very much for your extensive submissions. I know how many inquiries and committees you participate in on these really critical issues. It is absolutely appreciated and really does make a difference. Thank you for all your incredible work in this space. You can now enjoy your Friday afternoon. The Committee will have a five-minute break and be back at 2.50 p.m. with our last witnesses.

(The witnesses withdrew.)

(Short adjournment)

RACHEL WALMSLEY, Head of Policy and Law Reform, Environmental Defenders Office, affirmed and examined

ISHBEL CULLEN, Policy and Outreach Coordinator, Nature Conservation Council of NSW, affirmed and examined

JAN PRIMROSE, Convenor, Better Planning Network, affirmed and examined

The CHAIR: I welcome our next witnesses. Do any of you have a short opening statement?

Ms WALMSLEY: Yes, thank you. Environmental Defenders Office [EDO] welcomes the opportunity to provide evidence to this important inquiry about biodiversity offsetting in New South Wales. As you probably know, EDO is a national community legal centre specialising in public interest environmental law. We have a long history of providing legal advice on biodiversity and conservation matters, including on biodiversity offsets in New South Wales over many years. We were a key stakeholder engaged in the biodiversity conservation and land management reforms that led to the introduction of the biodiversity offset scheme [BOS] under the Biodiversity Conservation Act 2016 and have continued to engage in the implementation of the BOS. We have serious ongoing concerns about the use of biodiversity offsets in New South Wales and the effectiveness of the scheme to halt or reverse the loss of biodiversity.

It is critical that the operation of the BOS is considered in the context of the current twin threats of the biodiversity and climate crises. The 2019-20 bushfire season has fundamentally changed the landscape in which the scheme operates. The habitat of more than 293 threatened animals and 680 threatened plants has been impacted. Our threatened species lists continue to grow rather than recover. Climate change is reducing resilience and exacerbating these threats. In this context, it is clear that the policy settings underpinning the BOS do not align with best practice science-based biodiversity offsetting. They permit an inappropriate level of variation and discretion and they do not adopt the ecologically necessary limits to prevent extinctions—for example, "red flags". We have come to a point in New South Wales where everything is amenable to offsetting. The current scheme settings therefore will not deliver the intended biodiversity outcomes, including to conserve biodiversity and maintain the diversity and quality of ecosystems.

We refer the Committee to our submission, which identifies critical problems, including that there is no clear and objective requirement to improve biodiversity outcomes. Like-for-like offsetting requirements and variation rules have been relaxed to such an extent that they lack ecological credibility and the objective of no net loss is unlikely to be delivered. Biodiversity conservation measures are allowed in lieu of genuine direct offsets. Payments can be made to the Biodiversity Conservation Fund in lieu of securing offsets. This puts a great onus on the trust to be able to find an offset credit without actually stopping to check if a relevant credit can be found. Mine rehabilitation in the distant future is allowed in lieu of genuine offsets at the time of the approval or impact. Credit requirements can be discounted based on non-ecological considerations. Credit pricing is not aimed at achieving biodiversity outcomes, and does not factor in scarcity or stochastic events. Turning biodiversity into a tradeable commodity without a comprehensive system of red flags simply puts a price on extinction. Offsetting under native vegetation laws via "set asides" is virtually unregulated. The offset standards do not meet Commonwealth offset standards for accreditation. Finally, there is no comprehensive register of offsets in New South Wales.

We make 16 recommendations for strengthening the BOS to ensure that it aligns with best practice science-based offsetting principles and delivers improved biodiversity conservation outcomes for New South Wales. Our overarching recommendation is that significant reform of the scheme is needed to increase its effectiveness in halting or reversing the loss of biodiversity values. Given the significant challenges in achieving genuine biodiversity outcomes through offsetting, it should only be allowed in really clear, limited circumstances in line with best practice science-based principles.

To quickly recap for the Committee, these principles are that biodiversity offsets must only be used as a last resort, after consideration of alternatives to avoid, minimise or mitigate impacts. Offsets must be like for like. Legislation and policy should set clear limits on the use of offsets. Indirect offsets must be strictly limited. Offsets must achieve benefits in perpetuity and must be designed to improve biodiversity outcomes. Offsets must be additional, and offset arrangements must be legally enforceable. Finally, offset frameworks should build in mechanisms to respond to climate change and stochastic events. This inquiry provides an important opportunity to deeply interrogate the BOS and the use of biodiversity offsets in New South Wales, and to recommend key reforms that would address fundamental deficiencies that are undermining the ability of the scheme and the Act to deliver improved biodiversity outcomes for New South Wales. Thank you.

Ms CULLEN: Thank you very much for the opportunity to speak today. Biodiversity in New South Wales is in steady decline. Despite this, in 2016 the New South Wales Government introduced reforms that dramatically deregulated native vegetation management. Since these excessively permissive laws were introduced, rates of annual vegetation clearing have approximately doubled. The Biodiversity Offsets Scheme sits in the land management and biodiversity conservation framework as an enabling mechanism for habitat destruction. For those areas where important native vegetation is afforded some protection the BOS provides a pathway to clearing. Even for the most threatened species and ecological communities almost nothing is safe. Too much native vegetation clearing is not captured by the BOS. For clearing that is captured by the BOS, accessible avenues exist to avoid best practice offsetting.

The design of the current BOS does not meet best practice principles for biodiversity offsetting. New South Wales has seen several iterations of the Biodiversity Offsets Scheme over the last 20 years. In its design the BOS is the weakest and most flexible scheme so far. These design flaws are outlined in our submission and many others to this inquiry. Even with best practice design and implementation, research shows biodiversity outcomes can still be far from certain. Across the world biodiversity offsetting is widely applied but its effectiveness is rarely assessed after implementation. Studies that are available show that offsets often fail. There is not enough public information about the operation and, more importantly, the ecological outcomes of the Biodiversity Offsets Scheme. The system is not transparent and does not enjoy public confidence. The Nature Conservation Council of NSW [NCC] is grateful to the Committee for shining a light on this important issue and was also really pleased that the Audit Office of NSW has begun to investigate the BOS.

We are reaching ecological tipping points and must change course. The current system only stops destruction if it is likely to issue the final blow and push a species or ecosystem to extinction. Even then, there are avenues that can legally permit activity likely to cause extinction. We must identify what areas, species and ecological communities are too important to lose and designate absolute protection. Offsetting should only be used as a last resort. Where biodiversity offsetting is used, the scheme design must be best practice, transparent and include regular evaluations of ecological outcomes and cumulative impacts. The New South Wales Government is failing to protect our shared natural heritage. Instead, it leaves a legacy of destruction. In doing this it fails the vast majority of its citizens, who want to see nature thrive in our State. Until integrity across design, implementation and outcomes is achieved the BOS will struggle to achieve and maintain credibility. Thank you.

Ms PRIMROSE: Good afternoon, Committee Chair and members. Better Planning Network [BPN] thanks you for the opportunity to appear before this inquiry. BPN fully concurs with the observations and recommendations made in both the EDO and the NCC submissions to this inquiry. While EDO and NCC have extensively explained the problems with the integrity of the Biodiversity Offsets Scheme in their submissions, BPN has endeavoured to also provide real life, on-the-ground examples of the outcomes of the application of the BOS within the Sydney Basin. The BPN submission to the inquiry, dated 31 August 2021, addresses the integrity of the BOS with regard to its application and impacts at a strategic scale, using the example of the Growth Centres Biodiversity Offset Program, and at a landscape scale using the example of the Cumberland Plain Conservation Plan.

BPN wishes to table an additional submission document, which is dated October 2021. This additional document addresses the impacts at a local development scale by providing two individual examples of very recent development applications and the impacts of the BOS on the critically endangered ecological communities on the sites and the threatened species that inhabit those communities. With this in mind, there may be additional supporting documentation that we can provide on notice if requested by the Committee. As Mr Jenkins said earlier today, assessment at strategic and landscape scale is important, but as our earlier submission shows that becomes too inflexible. If the integrity of the vegetation degrades from, say, clearing or from bushfires, if fauna newly inhabits the land—as the koalas are doing in the Greater Macarthur region—or if vegetation becomes critically endangered there does not seem to be sufficient mechanisms to be able to adjust the scheme at a strategic or landscape offset level. At an individual site level, insufficient measures are being taken to avoid or mitigate impacts. BPN agrees with earlier speaker Ms Christie that it is a very common situation that developers simply do not provide the information necessary on which approvals can be based. Thank you.

The CHAIR: I will begin with a couple of questions, and then I believe Mr Ben Franklin from the Government has a couple. Ms Walmsley, today in *The Guardian* there is a story about offsets used for mine rehabilitation—which is quite shocking, really. You are quoted in that article. You state:

The idea that in 40 years' time a void could be rehabilitated to a functioning ecosystem that is somehow an offset for habitat destruction that is happening now is farcical.

You also state:

Offsetting is a tool that is facilitating decline and extinction and that's why it needs to be critically reviewed because it is losing its scientific credibility.

The Biodiversity Offsets Scheme is losing its scientific credibility. Do you want to expand on those statements?

Ms WALMSLEY: Yes. Thank you, Chair. Certainly in the context of mine rehabilitation offsets, that is a prime example of where the current scheme has just gone too far and gone beyond the bounds of ecological credibility. What we are talking about with the mine offsets is a mining proponent being able to get an approval based on offsets now, and those offsets might not actually occur or start to deliver outcomes for 40 years. We are talking about getting credit for something in the distant future. There is an assumption that a post-mining site, whether it be a void or a cleared site, will be able to be restored. That is critically overestimating the ability for restoration. Rather than an intact soil profile and soil microbiome, a mine rehabilitation will require a completely recreated ecosystem. As such, it cannot be expected to respond in the same way as if you are restoring an area with an intact soil structure and microbiome.

The suggestion that recreating an ecological community in this way would meet a like-for-like principle is absolutely inappropriate, because a lot of those plant community types take at least 20 years to restore ecological function. If you are talking about things like tree hollows, it takes greatly more than 20 years to achieve that ecological equivalence—that ecological function of the ecosystem. I think mine rehabilitation offsets are really stretching that credibility. It is also assuming that 40 years in the future there will be an agency that is funded and resourced like the Biodiversity Conservation Trust that will be able to determine whether offsets are actually delivered, whether they are achieving outcomes. There are so many question marks and hypotheticals. It is a really great example of where the current settings have lost ecological credibility.

The CHAIR: Thank you very much. I have a couple of questions for you, Ms Primrose. In the documents that you tabled for this Committee, you revealed in your research that the credits for low-condition Sydney Turpentine-Ironbark Forest cost more than those for good-condition Sydney Turpentine-Ironbark Forest. That is clearly a perverse outcome. How is that possible? Could you explain how that is happening?

Ms PRIMROSE: Certainly. I will just run you through that document that has been tabled just so that you can clearly see the explanation for this. If I could refer the Committee to the documents tabled today, on page 2 there are two tables. The first table shows two separate groups of Sydney Turpentine-Ironbark Forest, or STIF as it is known. The first group has the name of the threatened ecological community, or TEC. The second group of STIF is described as not a TEC. Under those two tables there are a couple of quotes. The first one refers to low-condition PCT 1281. That is the Sydney Turpentine-Ironbark Forest. In that first table, which is an excerpt from the New South Wales Government biodiversity payment report of the BOS calculator for a site at Castle Hill, you are separating Sydney Turpentine-Ironbark Forest into a threatened ecological community for high-condition vegetation and not a TEC for low-condition vegetation.

If I could then refer you to the next page, page 3, it has excerpts from the NSW Threatened Species Scientific Committee final determination on Sydney Turpentine-Ironbark Forest. It is a long-winded name. But anyway, it states that all occurrences of the ecological community, independent of their condition, are covered by the determination—that is, all occurrences are critically endangered ecological communities, which are all TECs. Yet the Government's offset credits calculator is inconsistent with that final determination and splits the STIF into two groups—a threatened ecological community and a not-so-threatened ecological community.

It gets worse. If the Committee would go back to page 2, in the second table you can see that the value per credit for the STIF that is a TEC is about \$9,000 per ecosystem credit. Yet, for the low-condition STIF that is not a TEC, the value credit is about \$12,000 per ecosystem credit. This is because the price of biodiversity offset credits under the market-based Biodiversity Offsets Scheme varies according to the number of credits being traded. This creates an anomaly whereby in cases such as the Sydney Turpentine-Ironbark Forest and the Blue Gum High Forest—which is another TEC—because there are fewer good-condition TECs traded than low-condition TECs, the price per credit for clearing low-condition STIF is higher per credit than for the good-condition STIF. In other words, it is actually cheaper to clear good-condition Sydney Turpentine-Ironbark Forest than it is to clear low-condition STIF. That is an anomaly that has to be rectified.

The CHAIR: Thank you, Ms Primrose. That was very clearly explained. Ms Walmsley, is that an isolated incident? Do you know the answer to that question? Apologies if I am coming out of left field with that one, but have you heard of that happening with other ecological communities?

Ms WALMSLEY: We have had quite a lot of feedback on how the pricing is currently working, and there are certainly anomalies in how different credits are being priced. I think one of the fundamental problems is that the focus in making the settings has been on a functioning market rather than the environmental outcomes. The pricing at the moment actually fails to factor in things like scarcity. If you think of this logically, the more scarce the ecosystem—it should be the most expensive credit. That should be sending a message to the market saying, "This is not feasible. This project should not go ahead because those are prohibitively expensive credits, because they are the last stand of that ecosystem." Given that there are no red lights in the offsetting scheme and

everything is amenable to offsets, it is really only the market that is going to set those red lights via things being cost prohibitive. But the policymakers have been so focused on trying to get a floating, buoyant market that the pricing has been adjusted and it has resulted in different anomalies. The Environmental Defenders Office has made a supplementary submission on the BCT charge system, and I can provide that to the Committee separately if that would assist. That raises some of the issues with pricing and some of the anomalies that have come up.

The CHAIR: Thank you very much.

The Hon. BEN FRANKLIN: I would just like to pull back a little bit. My question is to Ms Cullen to start with, but if either of the other two witnesses would like to answer then that is no problem at all. I totally hear what you are saying. I understand the concerns; I get that. But on the other hand I am thinking about something like the Georges River Koala Reserve, where the structure of the Biodiversity Offsets Scheme meant that a lot of money—\$84 million—can be invested to plant 100,000 trees. I see that there is a lot of potential good in this scheme, as well. Obviously there will be development. When we are trying to find the balance, if not this then what would we do instead to ensure that we can protect these things? Is it just that we need to get this system right, or do we need to throw it out and do something entirely differently? I will start with Ms Cullen.

Ms CULLEN: Sure, thank you. Noting our reservations with the principles of offsetting—and I am sure today you have heard a lot of philosophical objections to the idea—but if you accept that it is going to be a feature of our planning system then you can have a much better Biodiversity Offsets Scheme than we currently have, one that has those crucial red lines. That would actually make the price higher. It would mean that it would incentivise developments to avoid, before offsetting, and also create incentives to create offsets. Certainly, as you alluded to, this can be a revenue-raising mechanism to actually get the funds to deliver great conservation outcomes. But a better designed scheme would do that more effectively as well as protect the threatened ecological communities that are too precious to lose.

As Ms Walmsley explained, we are at a fairly extreme point in terms of the flexibility that is allowed in this system. There is a lot that could be done to fix it. The Biodiversity Conservation Trust, to go back to Ms Primrose's earlier point and Ms Faehrmann's question, are undertaking consultation at the moment on reviewing the developer charge system. In that consultation process there were 1,400 submissions. A submission report has not been published and those 1,400 submissions have not been made public, but I am sure in those submissions there would be many other examples like Ms Primrose's and others of how that is functioning or not functioning.

The Hon. BEN FRANKLIN: Yes, we have had some evidence of people basically disagreeing with the entire fundamental concept and saying that offsets as a concept just does not work. That was the issue I was trying to drill down into with you. What I am hearing you say is, "We get it; we understand this is going to happen. There will be development, but this system can be improved so much more. Here is the range of things, including red lines and others, that needs to be done." Is that fair?

Ms CULLEN: Yes, and I would be keen to hear Ms Walmsley's view, too.

The Hon. BEN FRANKLIN: Yes, Ms Walmsley, would you like to make a contribution?

Ms WALMSLEY: Yes, that is fine. First off, I would say that offsetting has had many iterations in New South Wales, starting with biobanking. Even before that, there were various different tools. Sometimes it was just done one on one with a developer and an agreement. Certain developers would buy up a bit of land; there was no methodology or consistency in how it was done. There have been various iterations, first of all, to try to get a bit more—have it underpinned by assessment methodologies and transparencies, in recognition of the fact that sometimes there are unavoidable impacts and those impacts need to be offset. If the starting point is that development in certain areas is inevitable and sometimes we will need to do an offset, that can actually mean that certain bush is retained, so it is a positive.

That was the starting point, but then offsetting became such a flexible tool that now offsetting is actually the norm. Developers jump through the hierarchy very quickly. Instead of avoiding or mitigating, you go straight to the offsets option now—and not just that. It used to be that you go to the offsets option, but now it is not just that; now you go into the payment option for an indirect offset. If you cannot find a direct offset for what you are impacting, there are so many variations now that you can actually just pay money to discharge that obligation. We have moved so far away from that original principle saying, "Yes, sometimes offsets are needed; let us do it properly", to a system whereby it is the norm now to just do an offset, and if you cannot find—

The Hon. BEN FRANKLIN: Instead of being last resort.

Ms WALMSLEY: Yes, and instead of doing a like-for-like offset, you can pay money now. We have moved so far away from the basic principles. Yes, there needs to be some kind of mechanism for this to happen

for unavoidable impacts, but it needs to be based on the core principles that I outlined in my opening statement. They are the fundamental things that must underpin any offsets scheme. There are things like really good strategic planning, where no-go areas are identified up front that can really give clarity and underpin a system so it has that ecological credibility. But we have moved so far away from the principles that we are now in such a flexible system that it is just the norm now for—the cost of a development is that you just also throw in some money for an offset that the BCT might have to find at a future date. We have really departed from those core principles and the core things that should legally underpin an ecologically credible system.

The Hon. BEN FRANKLIN: Understood, thanks very much. I appreciate that.

The Hon. ROSE JACKSON: Ms Walmsley, in some of those threshold questions—say, for example, an issue like last resort or like-for-like—who do you think should be making those decisions? I agree there are some pretty important threshold questions. How can we ensure that the people making a decision about whether, for example, this really is a last resort or whether an offset really is like for like—who should be making those decisions, and how do we ensure that they are properly expertly based?

Ms WALMSLEY: That is a good question. I think a credible system needs to have objective criteria and objective tools for making sure these decisions are made according to the science and the evidence. At the moment there is way too much discretion and way too much variability built into the system. At the moment offset considerations can be discounted on non-ecological grounds. There is so much discretion that we have really moved away from that objectivity.

In terms of who makes it, you obviously need accredited assessors to do the first assessment of a development site and an offset site. That needs to be done by someone who is obviously qualified and independently accredited. In terms of the tool they use, if you look back at the tools that New South Wales has experimented with in the past—if you look back at the Native Vegetation Act and the environmental outcomes assessment methodology under that Act, that was a tool that was based on best available science. You put in the data about vegetation clearing. It did not just assess biodiversity but it also assessed water impacts, salinity impacts, soil. It came out and it had objective criteria, and it did sometimes say no to a clearing application where the impacts were going to be inappropriate. Sometimes it said no, and that is why there was a backlash from certain elements of the farming community. But it was a robust tool that actually enabled decisions to be made on very clear criteria.

We have moved away from that evidence-based tool to a discretionary system now whereby we have local government decision-makers. They are limited a little bit for local developments. If there is a serious and irreversible impact, a local authority may have to refuse it. But for the biggest projects, the State-significant projects, there is a lot more discretion. Even if there is a serious or irreversible impact, the decision-maker just has to consider that and can go ahead and approve the destruction and approve that serious and irreversible impact. We have really moved away from that objective decision-making criteria, and we need to get back to that to make sure that we do have this ecological credibility. That can be unpopular, because the tool may say this is inappropriate—that this clearing will have serious and irreversible impacts, and so that is a red light. What it means is that project needs to go somewhere else or be redesigned, so it does set the parameters and the red lights. That is what this system needs.

The Hon. ROSE JACKSON: The follow-up to that is surely it would be very important in that system that the potential for conflicts of interest is avoided, and I suppose objectivity delivers that somewhat. As you would know, we have already seen the suggestion that when there is a lot of flexibility and a lot of discretion, you can have situations where decisions are made that this offsets that. Not only is that not objective, and maybe not scientifically based; it is also informed by conflicted interests about ownership of and interests in those sites. Other than principles of objectivity and some transparency, how can we have the robustness to ensure that not only are these best scientific principles—which is clearly important—but also the potential for conflicted financial interests is avoided?

Ms PRIMROSE: If I may just add something in there, this is something that Better Planning Network has raised numerous times. There is an inherent conflict of interest where you have the very consultants providing the reports being directly engaged by the developers or the mining companies. We have recommended on many occasions that it should be a roster system, which would be very easy to implement. The Registered Environmental Assessment Practitioners in the new REAP scheme are all going to be registered with the department. It would be very simple for it just to be a rotating system whereby the next development that comes up, the next ecological consultant is appointed. The response we got back from DPIE on that when we did raise that at a meeting was that it would be too complex to apply. Personally, I think that is a bit absurd. Even the then Roads & Traffic Authority [RTA] used to have a successful system of being able to allocate people to the next officer. Even if it was just

a paper list and you got a monkey to tick off a name, I think that is the key that is going to stop that vested interest by making it completely independent and taking it away from the consultants being engaged by the developer.

The CHAIR: Thank you, Ms Primrose. Ms Walmsley, were you going to say something to that as well?

Ms WALMSLEY: No.

The Hon. ROSE JACKSON: This question is probably to Ms Walmsley, but Ms Cullen or Ms Primrose should feel free to jump in. Do you have any suggestions about what system or what framework we might use for legal enforceability? There is obviously a range of different options for how you might make requirements legally enforceable, and I just wondered if you had anything to add on that.

Ms WALMSLEY: There are a couple of mechanisms that would certainly help. As I mentioned, just having a consolidated statewide register of offsets and more transparency about what areas are actually offset areas—and particularly where there have been funds directed into them—I think that is step one in really increasing the information about the existing offsets that we have. I think that is a critical first step. I had a second step that I have momentarily forgotten.

The CHAIR: That is okay. While you are thinking about that, let us go to Mr Field while we still have time.

Mr JUSTIN FIELD: Thank you to everyone for your detailed submissions and attendance today. I have a question about the BCT's obligations to acquit offsets and the delay—quite a large delay—in that acquittal. This question is for all three of you. At the moment the BCT tries to acquit offset obligations within the next five-year period. What do you think the time frame should be for them to have had to acquit obligations that they take on? I note the EDO's submission that you think they should have the right to refuse to take on offset obligations, as well. If you could also expand on that, Ms Walmsley, that would be very useful.

Ms WALMSLEY: Yes, we certainly think that the BCT should have the right—if a proponent is electing to take the option of providing the BCT money and then it is the BCT's problem to find the offset, if it is very clear that that offset may not be able to be found, the BCT should be able to say no to that and refuse that option. It puts the BCT in a very difficult position if they have got funding to do a certain offset and that offset simply cannot be found. That is going to contribute to a time lag. That is going to add to the time. If the BCT is expending resources on trying to find an offset and there just is not that viable offset, that is a problem with the system. There should have been a "no" far earlier on in the system.

In terms of how long it should take the BCT to be able to find offsets, we would prefer advanced offsets where, if you are going to do this, you need to find the offset before the impact actually happens. What we see in practice is approvals being given particularly to mines saying, "Yes, you have a condition that you have to fund an offset." That condition is not met because they cannot find the offset, and they extend that condition over and over again until it is years later and the mine has happened. The impact is done, and there is still no offset. Putting a defined limit on it—I think it has to be a much shorter time for the BCT to be able to source it. If they are genuine about finding a like-for-like offset, they should be able to say, "No, they should have a shorter period for finding a like-for-like offset."

They need some time, because it does take some time to locate the properties and locate the credits and actually have those negotiations and work with landholders. It cannot be done instantly. But certainly time frames have to be critically reviewed and examined, because otherwise these offsets will just be forgotten about. In five or 10 years' time the BCT might invest in some bush out west, which is a great thing for that piece of bush out west but is completely unrelated to the impact. There is no nexus.

Just quickly back to Ms Jackson's question before, the second thing I wanted to say about enforceability of offsets—the critical thing is that offset obligations are protected in perpetuity. Legally, what that really requires is for them to be on title. It is not enough to say they will be protected by a SEPP or a development control plan [DCP] or under the Local Land Services Act. Those are not protections. What you need legally to protect offsets in perpetuity is for that obligation to be on land title.

Ms PRIMROSE: If I might just add, to Mr Field's question, most developments and mines are planned years in advance. In the major example that we included in our recently tabled documents, the development was first mooted in 2017. It was not finally approved until 2021, and in that four years no steps whatsoever were taken to find any offsets for the clearing of 1.85 hectares of Blue Gum High Forest. What is now going to happen—the clearing is actually going to start in three weeks' time. The approval was only a bit over a month ago, so there is not a chance that the developer or the Biodiversity Conservation Trust will have found offsets for 1.85 hectares of Blue Gum High Forest when there is only about 280 hectares in total left in the world. But that process could have started four years ago, so having a delay is unnecessary. The developers know right up front what they are

going to do. I think the first suggestion, that the credit should be found before the clearing can start, is the way to go. What is going to have to happen on this site that we mentioned in West Pennant Hills is that they are just going to simply pay money, and this is a critically endangered ecological community that they could have found offsets for four years ago.

The CHAIR: It is almost like the Government has set a price for developers to pay to send something to extinction. This is what we are hearing; this is what this scheme is becoming. Is that your view?

Ms PRIMROSE: Yes. I do not think it started out as that. In fact, we have early documentation—when I say "early", just two years ago—from Office of Environment and Heritage in terms of the serious and irreversible impact [SAII] on things like the critically endangered ecological community that if there was going to be an SAII, the development could not go ahead. But that is no longer the case. Unequivocally, you would have to say that clearing 1.85 hectares of Blue Gum High Forest is going to have an SAII. In accordance with the principles of the Biodiversity Conservation Act, it does, but yet we are in a situation where the developer is just going to be able to pay money for it.

Mr JUSTIN FIELD: I will give Ms Cullen an opportunity to respond.

The CHAIR: Okay. Catherine does have a question, and I just want to make sure there is time for that. Ms Cullen.

Mr JUSTIN FIELD: I am happy for everyone to take this on notice; I will just put it on the record. I am also interested in the biodiversity stewardship scheme properties and whether we have good evidence that the auditing and management obligations on landholders are being met. I will just flag that I will put those on notice to the witnesses. Ms Cullen, do you have a quick comment on my question?

Ms CULLEN: Yes, sure. Definitely we do not think there should be any time lag, and that is central to our opposition to having a payment option. But very important here also is what proportion of offset obligations are being fulfilled through this payment option overall, and we know that the trend is increasing. In 2018-19 it was 31, then 75, then 104. An increasing number of offset obligations are being fulfilled through this payment option, but we do not know what proportion of all offsets are being fulfilled through that option. If it is a very high proportion of overall offsets and there is a five-year time lag then that makes that particularly problematic, but if the conditions for being able to pay instead of provide offsets were much narrower then that time lag might not be as problematic.

Mr JUSTIN FIELD: I shall put that question to the Government, Ms Cullen. Thank you.

The Hon. CATHERINE CUSACK: My question just relates to the language around offsets. If you are paying money then it is kind of relieving you from making an offset, is it not? It is more of a compensation scheme. The term "offset" implies that there has been a like-for-like, I guess. I just wondered if there should be more refinement about the language to make it clear what is going on. Secondly, I suppose just amplifying the comment that was made earlier, is there anything in the system that just stops a development on the basis that it cannot be offset and it does irreversible damage? If we did have a button like that, how would that work? Whoever wants to comment may do so.

Ms WALMSLEY: In terms of developments actually being stopped through lack of offset, I think there would be a handful at the local level of part 4 decisions. Where it is a local development, if there is a serious and irreversible impact, a decision-maker can refuse the project because there is a serious and irreversible impact. But as I said before, for major projects and part 5 projects, there is a lot more discretion now so there is no red light. Essentially, everything is amenable to offsets and to paying the money. You are exactly right when you say the option of paying money now is not an offset. You are not actually offsetting a particular impact; that is a compensatory payment. A trade-off has been done and we are basically saying, "Yes, we will do that approval on the idea that some money will go to conservation somewhere".

I think we all know that we would love to see a lot more investment in conservation. We would like to see a lot more resourcing for conservation and a lot more money being able to go to landholders as stewards of biodiversity—that kind of injection. Some of the strategic investments in the Biodiversity Conservation Fund are great, but we cannot call them offsets because they are actually not offsetting. If you go back to the principles of the Act and the Act saying there should be no net loss, the Biodiversity Offsets Scheme is actually facilitating net loss all the time.

The Hon. CATHERINE CUSACK: Wow, okay. Thank you, good answer.

Ms CULLEN: I would jump in there just to agree. If the end result here is developers in the city paying money to the BCT and then five years later the BCT makes a big strategic purchase out west because they have

access to these variation rules then the Government should be explicit about that. That is a bioethical decision, and if you are calling it an offset when in practice it is not then that is problematic.

The Hon. CATHERINE CUSACK: Just in relation to the mining industry, this example predates the system we have at the moment but the Leard State Forest and the mine development that occurred out there—a lot of the offset was rehabilitation, and the evidence that we are looking at now is that the rehabilitation has not worked. I just wondered if there was any comment in relation to where that issue fits in, because the mining industry appears to have different criteria to everybody else in the scale of damage they can do to the environment.

The CHAIR: Ms Walmsley, you are nodding on that one.

Ms WALMSLEY: Yes, unfortunately, that is not an isolated incident. There are a lot of examples where mining approvals are given with conditions either about offsetting or rehabilitation, but if you check in on how those conditions have been met five or 10 years later, often they have not been met. One of the other problems is there is actually a lack of monitoring and reporting back on how rehabilitation is going. There is a number of problems around how mining conditions are done in this respect. As I was talking earlier about the idea of mine rehabilitation offsets in the future counting now, that is an extreme example. But under the current system we have got, there are serious problems with conditions not being met and no action being taken.

In terms of rehabilitation, as I said, the offset system does not factor in stochastic events like bushfires or droughts. If you are talking about rehabilitation, if you are talking about planting seedlings or saplings and a bushfire comes or a drought comes, you have got no environmental outcome there because there has been an event that has prevented that outcome. Sometimes there has been mismanagement and the predicted outcomes do not get achieved, and they also do not get audited. It is good that there are moves to look into this. But if you look at some of the work of the Audit Office and the Natural Resources Commission, they have had a look. I think I mentioned set-asides on the native vegetation laws. There is no auditing of set-asides. Under codes a landholder might say, "I will plant something", but there is actually no checking. Did the seedlings survive? Did they die? Is there any rehabilitation?

The Hon. CATHERINE CUSACK: That is why I used Leard as an example, because it is a very fragile environment. I think they have been spending the money to do the rehabilitation, and the problem is it cannot be rehabilitated.

Ms WALMSLEY: Yes, certain ecosystems actually cannot be rehabilitated. If you look at upland swamps and hanging swamps, the science very clearly says these cannot be reconstructed. You physically cannot reconstruct peat ecosystems. Again, that is where you need to have red lights and say these certain things are not amenable to offsetting. You need to have insurance buffers in the case of stochastic events that mean rehabilitation does not work. There needs to be far more scrutiny and transparency of whether environmental outcomes are actually delivered. At the moment all the focus is on the market and the trading and the credits, but the focus should be on environmental outcomes.

The Hon. CATHERINE CUSACK: Sorry, are you saying that in a development approval perhaps we should be putting some conditions in around what happens if there is a catastrophic bushfire?

Ms WALMSLEY: We have done that in the past. There have been examples where, for offset things, there have been discounted provisions based on the likelihood of that offset actually working. I think, in terms of mining, we used to have a 25 per cent limit because of the great uncertainty of that rehabilitation and the offset working. We have used discounting measures in the past, but they are not favoured under the new scheme in terms of flexibility. We need to bring back those safeguard measures.

The CHAIR: Unfortunately, we are out of time. That is the last session for today. I thank our witnesses for this session and for their submissions, and for all the work you do protecting nature in the various forms that you do. Thank you very much. That is the end of today's hearing, for anybody that tuned in. We have two more hearings in December for this inquiry.

(The witnesses withdrew.)

The Committee adjourned at 15:43.