

REPORT ON PROCEEDINGS BEFORE

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

KOALA POPULATIONS AND HABITAT IN NEW SOUTH WALES

CORRECTED

**At Performance Studio, Campbelltown Arts Centre, Campbelltown, on Friday 25
October 2019**

The Committee met at 1:45 pm

PRESENT

Ms Cate Faehrmann (Chair)

The Hon. Mark Buttigieg

The Hon. Catherine Cusack

The Hon. Ben Franklin

The Hon. Shayne Mallard

The Hon. Mark Pearson

The Hon. Penny Sharpe

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The CHAIR: Welcome to the third hearing of the Portfolio Committee No. 7 inquiry into koala populations and habitat in New South Wales. The inquiry is examining the current status of koala populations and their habitat and focusing on the impact and effectiveness of existing policies relating to land management reform, forestry and the environment. Before I commence I will acknowledge the Dhariwal people, who are the traditional custodians of this land. I also pay my respects to elders past, present and emerging and extend that respect to other Aboriginal people present.

Today is the third of several hearings we plan to hold for this inquiry. We will hear today from key environmental organisations, such as the Total Environment Centre, the Wilton Action Group, Help Save the Wildlife and Bushland in Campbelltown, Save Mount Gilead and the MacArthur Branch of the National Parks Association, as well as from koala expert Dr Stephen Phillips of Bio-Link. We will also hear from Campbelltown and Wollondilly councils as well as representatives from Lendlease.

Before we commence I will make some brief comments about procedures for today's hearing. In accordance with the broadcasting guidelines, while members of the media may film or record Committee members and witnesses people in the public gallery should not be the primary focus of any filming or photography. I also remind media representatives if there are any present that you must take responsibility for what you publish about the Committee's proceedings. It is important to remember that parliamentary privilege does not apply to what witnesses may say outside their evidence at the hearings. I urge witnesses to be careful about any comments you may make to the media or to others after you complete your evidence as such comments would not be protected by parliamentary privilege if another person decided to take an action for defamation. The guidelines for broadcasting of proceedings are available from the secretariat.

In relation to procedural fairness for inquiry participants, I point out that all witnesses have the right to procedural fairness according to the procedural fairness resolution adopted by the House in 2018. In relation to questions on notice, there may be some questions that a witness could only answer if they have 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. In relation to adverse mention, I remind everyone here today that Committee hearings are not intended to provide a forum for people to make adverse reflections about others under the protection of parliamentary privilege. I therefore request that witnesses focus on the issues raised by the inquiry's terms of reference and avoid naming individuals unnecessarily.

In relation to the delivery of messages and documents tendered to the Committee, witnesses are advised that any messages should be delivered to Committee members through the Committee staff. In relation to audibility, to aid the audibility of this hearing may I remind both Committee members and witnesses to speak into the microphones. I have just heard that the silver button at the bottom of the microphone has to be pressed and that only three microphones they can be on at one time, so we all have to be very well behaved. The room is fitted with induction loops compatible with hearing aid systems that have telecoil receivers. In addition, several seats have been reserved near the loudspeakers for persons in the public gallery who have hearing difficulties.

In relation to photos and noise from the audience, audience members should be mindful that noises and interruptions make it difficult for witnesses to communicate with the Committee. I request that audience members refrain from talking for the duration of the hearing. I also note that photos and videos may not be taken—I am sorry—while the hearing is underway, except by authorised representatives of the media. If you would like to take a photograph of today's proceedings, please approach the secretariat. In relation to mobile phones, could everyone please turn their mobile phones to silent for the duration of the hearing. I welcome our first witnesses.

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FIONA BULLIVANT, Wilton Action Group, affirmed and examined

BARRY DURMAN, National Parks Association of NSW, Macarthur Branch, and co-author of Campbelltown Koala Research and Database, sworn and examined

SUSAN GAY, Public Officer, Save Mount Gilead Inc., sworn and examined

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

RICARDO LONZA, Co-founder, Help Save the Wildlife and Bushlands in Campbelltown, affirmed and examined

The CHAIR: Would any of you like to make a short opening statement?

Ms BULLIVANT: Yes.

The CHAIR: How many of you intend to make a short opening statement? Three. If you could, keep your opening statement to a couple of minutes each.

Ms BULLIVANT: There has been a real failure of government process to give proper consideration to detailed scientific advice from experts and its own departments—the Environment Protection Authority [EPA] and the Office of Environment and Heritage [OEH]—about the need for very careful and ecologically sustainable development in Wilton, given its sensitive environmental constraints. The scale of development proposed for Wilton is a new city the size of Port Macquarie.

Actions taken for koala preservation are mostly associated with individual planning proposals and are not considered in a regional context. This piecemeal approach has potential unknown impacts, such as funneling koalas in a north-south direction along Appin Road to be then fenced off with another koala fence that runs east-west along Picton Road. The impacts of this fencing on both the koala population and all other species, including quolls, goannas, echidnas and wallabies, et cetera, is unknown. Often, once fencing is proposed it is the only conservation measure put in place. It then becomes a developer or Roads and Maritime Services [RMS] free-for-all on the other side of the fence.

Fencing does not take into account other already preserved lands and other valuable habitat that may then be left isolated. It does not consider the flow-on impacts of where the animals are then funnelled towards. I live on Macarthur Drive. The new fencing has tripled the roadkill on my street. What is needed is planning in a regional context with preservation of both north-south and east-west linkages to be accessible by all species for the whole Greater Macarthur and Wilton Priority Growth areas and the lands in between them. This preservation of linkages needs to happen now before further rezoning and development applications are lodged. The land should be selected on a scientific basis to ensure population viability and allow the recovering population to expand and disperse. This will not necessarily be in accordance with developers' wishes.

Developers have speculatively bought enormous landholdings in these areas for potential future urban development. This is their risk to take. It does not mean that the New South Wales Government is obliged to deliver them a profitable slice of the Australian pie by approving such development. If developments become unviable with biodiversity protections in place, that is actually a good thing as it will incentivise more sustainable development in the future. What is also needed is public accountability of Ministers' decisions, particularly when they contradict departmental advice, as they have in the case of Wilton South East. We asked that the Ministers to be required to publish a statement at the time of making the decision, justifying in detail exactly why they decided to rezone, given the evidence of the department before them. As in the case of Wilton South East, the advice from the Office of Environment and Heritage and independent experts was not to rezone, yet the rezoning went ahead.

Another matter that we struggled with as a community was the access to information at all levels of government. The Government Information (Public Access) Act [GIPAA] process is expensive for volunteer organisations and is full of delays. It often results in refusal which then has to be challenged and overturned. Then there are further delays as further permissions are sought from the document owners. We have outstanding requests, one of which has been "being processed" for more than 12 months. That request relates to a koala deed of agreement between the developer and the council. The deed only runs for a period of two years, yet the community cannot access it to check that progress is being made. An urgent overhaul of this process should be prioritised. The release of information should be prompt and free. Thank you very much. I have my speech and other supporting information available for the Committee.

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The Hon. CATHERINE CUSACK: Does that have the reference to koala agreement?

The CHAIR: We can ask for that. Mr Durman, would you like to make an opening statement?

Mr DURMAN: Yes. Thank you for holding this inquiry. Professor Close, a respected koala expert, often quotes that the ability to expand is more important than the number of a population providing that all corridors remain open whether they are used or not. That is what this inquiry is all about: corridors and habitat. Governing bodies have two departments: environment and development. The environment misses out when it comes to development. Koalas should be given precedence over development rather than what is happening now, which is development before koalas. The State Environmental Planning Policy No 44—Koala Habitat Protection—is used by developers to decide which trees should remain but koalas also need shelter trees which should also be retained, especially as climate change increases temperatures. These areas must be linked by corridors at least 450 metres wide.

Mount Gilead is the shortest distance of a viable corridor between the Georges and Nepean rivers. This can be demonstrated by the number of dead koalas found on the road. The present plan does not protect this corridor. Mistakes are made. The State Government was led to believe that there were no koalas on Mount Gilead. The koalas killed just over the fence were not on the property and therefore did not count. In fact, a survey by Dr Stephen Phillips proved that koalas are present. Another example is that some private owners do not allow the council or their consultants to enter their properties and therefore no native animals are recorded. The quick fix for koala deaths on the road is a variable speed limit with speed cameras. Like on the motorways, this can be put into place on all hotspots where koalas are killed. Fencing them in on the eastern side of Appin Road and forcing them to head down south will create a problem with chlamydia. They will also have to fight resident koalas for the territory as they go on their way.

The CHAIR: Thank you. Mrs Gay, do you have an opening statement?

Mrs GAY: Yes. Thank you for asking me to speak this afternoon. I ask the panel to focus on two issues. First, do we need the greater Macarthur land release? Yes, there is population growth but the land release has been knocked back by government on four or five occasions as being not suitable for mass development because of air pollution and environmental restrictions. We already have the South West Growth Centre with the new train line and that is not without its problems. The ridge line that forms the greater Macarthur land release stretches from Mount Gilead to Wilton. It encompasses both catchment and farmland where wildlife coexist and is flanked by the Nepean and Georges rivers, two major rivers of the Sydney basin. If we have development it should come with vision, careful planning and consideration for the people and environment that currently exist in the area. Presently developers and powerbrokers dominate spot developments happening at Wilton, Appin, Menangle, Mount Gilead and Menangle Park—the list goes on. This should stop until an overall plan is achieved.

I have watched developers split and fragment communities. They use their money and power to influence wildlife, environment and community groups, including the Rural Fire Service. I have seen developers alter the flow of natural creeks—as we heard this morning—reducing the drinking water available for the wildlife. This has also been evident in the Georges River on the eastern side of Appin Road where South 32—aka BHP—has been given the power to turn off the water flow. The Office of Strategic Lands has allowed koala habitat land to be included in a proposed development at Mount Gilead. I want to draw your attention to specific concerns affecting koala survival in the area, subject to urban development. Developers are destroying the habitat of native wildlife by manipulating, abusing and simply ignoring development laws. The council is often complicit because it gets development contributions and rates. Examples of that can be found at Mount Gilead. Lendlease has applied for gateway approval to locate a community hub in the middle of a narrow green corridor that links Noorumba Reserve to red flag critically endangered shale/sandstone transition forest [SSTF] land where koalas exist. This will effectively block that wildlife corridor.

There is no need to locate the hub in the chosen position and it can be moved. There is plenty of land within that area. However, Campbelltown City Council supported the developer's application for the proposal to be sent for gateway approval. With Mount Gilead at stage one, the legal advice is that the development application [DA] 3868 consent is invalid and that the consent authority—Campbelltown City Council—breached the Environment Planning and Assessment Act by failing to consider and comply with clause 6.32 of the local environmental plan [LEP]. However, DA 38 for tree removal for the bordering of dams and earthworks remains approved. Also developers use methods when reports are compiled and assessed that are questionable and tend to benefit the developer. The council turns a blind eye to such practices. An example of that is that the Environment Protection and Biodiversity Conservation [EPBC] Act assessment report for Mount Gilead stage one was prepared, reviewed and approved by the same person, Robert Humphries. He prepared the report, reviewed the report and approved the report for the EPBC assessment.

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The CHAIR: Mrs Gay, can I just check how much more you have? What you are reading contains quite a bit of detail. You can table it.

Mrs GAY: I only have a little bit more. Most importantly, Mount Gilead stage two must be saved for wildlife. As I said in my report, it is vital that the area of some 1,109 acres is preserved and does not go to gateway for approval. Gateway approval is the first step to rezoning for urban development. As a developer once stated, the gateway process is a gateway without a gate. What goes in will not come out or be stopped. Thank you.

The CHAIR: Thank you very much. Mr Deane?

Mr DEANE: I would like to thank everyone for taking up our invitation to come out to the local community and hear the local community's concerns about the koala population in this area. As we know, this is incredible, rapidly recovering koala population, which is unusual in this State. I would like to mention a few things. Last time I mentioned how Mount Gilead is almost a study on how to subvert biobanking so that it becomes meaningless. We ran through the different ideas about what that means in terms of zoning and how rather than being given an environmental zoning it was zoned as rural and also as for public recreation. We had islands that were sort of saved and red flag places that had no vegetation connection to other areas. There were also issues around proximity and additionality so that when they took something away something additional was not added. So that was the problem we talked about there.

I just want to say this is an incredibly amazing opportunity for Campbelltown—a whole new sustainable industry that is about to occur. We see that Port Stephens has seized this with both arms and taken it on board and has been able to create a hospital, a sanctuary and then also incorporate that in ecotourism. That is obviously a potential here for Campbelltown to do. But it cannot do that without the scale difference that you need in order to make sure that the koalas can survive in this area. That scale difference means regional scale corridors, which is why the Georges River Koala National Park is so vital and Gilead is an essential part of that because it provides the east-west connections between the Georges and Nepean rivers, which Pat talked about before. That is the framework. Then obviously you have to scale it down. So what is the lowest scale? We have other ideas about where the creeks and other smaller creeks and different scaled creeks also allow koala corridors. You cannot rely on one or two large corridors to support it. You need different scaled corridors in existence to do the work and in order to be able to get Campbelltown to seize on that.

What we have looked for is really, while we thank the Committee for coming out and having a look at the area around Campbelltown and so on, especially at Gilead, we have had a bit of trouble sometimes getting the Campbelltown councillors to come out and have a look. For some reason they are always very busy. And in fact they seem to be always captured and be jumping however high one of the developers wants to do something. They seem to always accommodate that and we do not know why. I have a document with an example of where they have moved a community centre into the middle of a public recreation, which is the only vegetation corridor connecting Noorumba with one of their red flagged areas. So basically they are creating a pearl necklace that cannot be crossed by koalas or making it very difficult. I will table that. It is a letter. Campbelltown councillors seemed to have no problem with that. They all passed it, unanimously, except for one.

Also Wilton in the planning panel seems to have some issues as well. We have had a koala fencing idea, a koala fencing plan that cuts straight through the middle of an environmentally zoned corridor that was set aside for koalas itself. And this was approved as a staging plan. It has not actually got through. The only accommodation we have for saying this is ridiculous is that they are only going to stage it so they will do a bit of a staging of fencing first. But the overall idea has not been just kicked out of the park, which it should have been. It is environmental koala habitat which now is looking at having a fence go right through the middle. I will table that too.

The CHAIR: Thank you. Please hand those to the committee secretariat.

Mr DEANE: There you go. I just want to say how heartened I am to see a cross-party group come together. If koalas cannot bring us all to the game together what can?

The CHAIR: Thank you, Mr Deane. Mr Lonza?

Mr LONZA: Thank you everybody for coming today. I am here to save the koalas, not to advocate against any specific development or stop development that does not harm them. I am at the front line. I see when they are injured, when mothers and babies are killed. I take and carry them from where they are found to where they are treated. Sadly a lot of them pass away. I read the transcript from earlier hearings of this inquiry with horror. The callous approach by some servants who seem to want to sweep the koalas under the bed and kick the

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problem down the road or make useless promises that do not and cannot produce actual tenable results terrifies me.

What is the purpose of this inquiry if not to take immediate action to save what is left of our koalas? Whatever you do or do not do, I and my family and friends will be out there every night physically protecting them as much as we can. We will not just take a backward approach, like a heritage building could be prepared in due course—sorry if that did not make sense. I am here because I despair for the beautiful creatures and despair that by the time this report is even considered the quantity of koalas will be diminished beyond saving. While the public servants pass the parcel from one department to another, from one section to another, with no-one having ultimate responsibility, the recommendations of any inquiry will be pointless. Thank you.

The CHAIR: Thank you, Mr Lonza. We will open up for questions now. I might kick off with you, Mr Lonza. Could you tell the Committee about some of the work that you do? You said you are out there every night picking up koalas. I think most of us are aware of the work you have done over quite a few years now, and we thank you for that. But just to get it on the record, what does that work look like and how many koalas are coming into your care?

Mr LONZA: Roughly now from 2012 till today we have had 27 koalas killed on Appin Road, and these are just the ones that I know of. There are other organisations out there that have their own statistics. There are also koalas that are hit that we do not know about, that no-one reports, and they run off into the bush and die or are injured or whatever. Last night I went out to one in east Campbelltown, then there were two today in Linwood Park, right where they want to put the Georges River Parkway. There was also one down in Glenfield today which is very dehydrated in suburbia, because they cannot find any water sources. Along with me and a lot of other dedicated rescuers out there from WIRES and Sydney Wildlife, we are out there on an almost daily basis and nightly basis rescuing koalas. It is absolutely heartbreaking. To pull a koala off Appin Road is like holding a two-year-old baby. It is disgusting that some people do not stop. We need something in place. We do not just need fencing. We need underpasses, overpasses, habitat and corridor systems protected for these beautiful things. Obviously we are not going to stop every death but if we can stop as many as we can it would be good.

The CHAIR: Was that four koalas in the last 24 to 48 hours that you—

Mr LONZA: It was one last night. These are sightings: one last night and then three today.

The Hon. SHAYNE MALLARD: Just to clarify, that is not fatalities, that is sightings.

Mr LONZA: Not fatalities, just sightings, yes. But right near roads and all that sort of stuff.

The CHAIR: I open questioning to other Committee members.

The Hon. CATHERINE CUSACK: What is the preferred solution for Appin Road?

Mr LONZA: At the moment for all development to stop until something is done. We need fencing, corridor systems, underpasses and overpasses, and not just fencing like Picton Road, which is a sham. There are holes everywhere and it has only recently been completed. We need underpasses, overpasses and corridor systems on the other side. There is no point having this side with all the koalas in and then we wipe it out and filter them into housing development. We need to keep their corridor systems so they can get from A to B. It is like if I put a wall up in your corridor so you cannot get to your bathroom or your bedroom. You need to get there. So we need to keep the corridor systems, the connectivity, open.

The Hon. CATHERINE CUSACK: Are you aware as to whether that work has ever been done as to where these underpasses and overpasses would go?

Mr LONZA: I believe that at the moment there is no commitment for any underpass or overpass there.

The Hon. CATHERINE CUSACK: Ms Bullivant, are you aware of any work in relation to the roads issue that could be progressed?

Ms BULLIVANT: I do know that they have put the koala fencing up along Picton Road. I am at Wilton, so that is the Picton end. And they propose to put fencing in along Appin Road. But there does not seem to have been any scientific research as to where the best places would be for underpasses and overpasses. I think that is very important that the Government puts the money towards researching and working out where these networks of underpasses and overpasses should be.

The Hon. CATHERINE CUSACK: Was there any community consultation about the fencing?

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Ms BULLIVANT: I think Mr Lonza and the others might be able to help but I think it was part of the Roads and Maritime Services [RMS] submission for parts of the widening of the road. But a lot of these things slip by the community without them realising that it is a koala fencing proposal because they just see it as a road proposal and they do not really think about what else might be the thing. The other thing is we are absolutely slammed with the volume of information we are having to review. The development in this region is phenomenal.

The Hon. CATHERINE CUSACK: Given the extensive local knowledge and mapping work the community has undertaken, I am trying to work out how a fence could be designed without talking to people who know where the koalas are.

Mr DEANE: Can I just say a couple of things about the overpasses and underpasses. There is a Campbelltown koala plan of management which looked at overpasses and underpasses and where they should go. It was very thorough. At the moment it is stalled in the Department of Planning. Meanwhile development happens while this is not referred to. And where they suggested them was Noorumba, Beulah and then there are a couple of areas down in Ousedale Creek, Mallaty—

Mrs GAY: Mallaty Creek.

Mr DEANE: Yes. So they have got locations and a similar sort of diagram and other reports have indicated very similar places. So, yes, they have been worked out.

The Hon. CATHERINE CUSACK: So there is a solid proposal as to how this could be done.

Mr DEANE: A scientific proposal.

The Hon. CATHERINE CUSACK: And that would be a proposal that we would support.

Mr DEANE: What has happened is that OEH has come over the top of that and said, "Koalas cannot live with subdivisions"—a blanket statement because they found one report that said that. Obviously it does not happen up in Airds and Rosemeadow and a whole lot of other places where they do—"and so therefore we do not want any koalas on the west side of Appin Road. Therefore we are going to put exclusion fencing all the way down Appin Road and not provide crossings." It has been done on purpose. It is a purposeful local extinction plan being put in place.

The CHAIR: Mr Durman, did you have something to add?

Mr DURMAN: Yes, I would add to that. Campbelltown council did propose corridors and that is in their minutes but some of those corridors—that was to the end of their boundary—but a lot of those corridors were alleys which needed an extra bit to make them into a corridor. As for overpasses, my wife and I presented to Penny Sharpe when she was Minister—not Minister—submissions which were handed in and the letter that we got back was from the Government and that said that their preferred option was Ousedale Creek. That has got houses one side; it then goes across to the trotting ring. After that it is a paintball and then after that it is a motocross. When Roads and Maritime Services came out and had all their roadshows we mentioned this to them and they said, "That is no problem, we can buy them all out", which was a tap on the head: "Thank you very much for your information, it will be noted" because anywhere else goes against development.

Mr LONZA: Just one example on why connectivity is important. Out at Airds there was a corridor system that went from Ruse all the way out to St Helens Park and the government of the day destroyed that now. It is getting homes all through this corridor system and we have had nothing but koalas coming out into suburbs. At Airds service station, which backs right onto this development, there was a koala there two weeks ago that I went out to rescue. We are putting them more in danger by pushing them out of the corridor systems into homes which have dogs and obviously cars as well. So we need to connect and keep them connected.

Mr DEANE: Just to follow on from that, we had some very forward-thinking planners probably about 30 or 40 years ago who put into effect basically what we have been talking about, like having corridors connecting up through. That is why you have all these koalas in Smiths Creek. And the government of the day at the moment has gone through and put a big hole through one of these riparian corridors. So the thing becomes how do we make sure that these things are sustained in perpetuity? Why is this being taken advantage of or being abused right now?

Mrs GAY: Can I just say on the fencing on Picton Road and to Fiona's, we were at the Joint Regional Planning Panel and Sydney Water had stated that at the back of the South East Wilton development there must be three rows of barbed wire fencing. That is to protect the catchment. So it is not just about keeping the koalas, it is about protecting our drinking water as well that needs to be taken into consideration. Picton Road is fully fenced

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and my daughter and a number of—they are just going along the fence until they can find the end. They have just been killed. So the fencing obviously has not worked. Thank you.

The Hon. BEN FRANKLIN: I have a couple of questions predominantly focused towards Mr Durman but I am happy for anybody else to jump in as well. There are two issues. The first is, obviously, one of the things to do is to work out where the koalas are. I was very concerned about one point you made in your opening address which was about landowners not allowing people who are actually trying to count koalas onto their properties. Could you tell me what quantum of land that would cover, in your experience? That is, is this only 0.1 per cent or are we talking about a substantial amount of land where we do not know because of inactivity of the landowner? And what can be done to address that?

Mr DURMAN: I know that when Steve Phillips came out to do his report next door to Beulah, all that land to the left, they could not go to. And I know that when Wilton was doing a survey the koalas went onto private land with tracking and the trackers could not go into that land but, lucky enough, the koala had a mobile tracker and when it came out it tracked the whole area. And it was only by luck that the koala came out before the batteries ran out.

Ms BULLIVANT: The problem that you have is that a lot of these private landholders are the developers and, obviously, they have a massive disinterest in you finding any koalas on their land.

Mr DURMAN: That is just really one of the little issues that we have—not so much me but councils and anyone who is going to do a specific survey to find out where they were. I know that Professor Robert Close, when he was doing his survey, he could not go on certain land because they did not want him to record that they had koalas.

Mr DEANE: Can I comment? You can actually see that if you look at BioNet. BioNet tracks all the koala sightings and kills. It is really interesting if you look at Gilead or the South East Wilton, you have all these koala sightings all around the actual site and maybe one or two in the middle. That does not mean that there are no koalas in there. It just means that they have not been sighted on a property because no-one has been on the property. With that, too, just because there are no koala sightings on a property does not mean it is not important. It is like if you were to look at where we live and look at where we are and then at night-time there is no-one on the roads, it does not mean the roads are not important. They are vitally important. That is how we get around and live our lives, and it is the same for koalas. Even if there is no sightings of them, if they are surrounded by sightings that just shows how important that site is.

The Hon. BEN FRANKLIN: There may be a recommendation in that, Madam Chair. The second quick point I want to make is that there has been some contention and some conflicting evidence about the necessary width or diameter of feed trees and what is the minimum that is actually valuable for koalas. Could you please, from your experience, Mr Durman, give us what you think is the minimum width of a feed tree that is actually valuable?

Mr DURMAN: Feed trees is just a quantum remark, really, isn't it? It is State Environmental Planning Policy [SEPP] 44. You have an area but they are not restricted there.

The Hon. BEN FRANKLIN: Sorry, I meant the specific tree itself.

Mr DURMAN: There is a variety of trees that make up that, and that variety of trees really is dependent on whereabouts in this country they are taken. The feed trees around here are slightly different to those elsewhere. If you look at where koalas are sighted and their distribution, distribution means that the male koala—not only the male but the female as well—will move out. That is not just because he wants to leave home; that is because of his natural ability to go and spread his genes around. If you took a core koala habitat here and a core koala habitat there and said, "We can clear the rest,"—

The Hon. BEN FRANKLIN: Sorry that is not actually the question I was asking. I appreciate the point but we have just got limited time.

Mr DURMAN: You are talking about corridors, aren't you?

The Hon. BEN FRANKLIN: I am talking about individual trees. There has been some evidence suggesting that for individual trees to be of any value for koalas to be able to feed they need to be at least 300 millimetres. Your evidence this morning was that smaller trees are actually valuable too and that koalas feed on those as well. That is what I am trying to tease out, if that is the case.

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Mr DURMAN: If you take what has been reported over 27 years and then you look at all the diameters, they go from very small to very large. I have answered that question in there and—I have forgotten his name—they have given—I have not got that in front of me.

The CHAIR: We might move on as we have only got five minutes left of this entire hour.

The Hon. MARK PEARSON: Just moving on from what was being discussed, Mr Durman. Is it true that younger trees are actually a problem in terms of nutrition or the level of acidity for koalas to be eating? Is that an issue for koalas?

Mr DURMAN: No, I do not think so. I think they like the younger trees. The ones around here, as I said in my report, they eat the trees. Then they move on, giving time for the tree to recover. Whereas others, where they are highly dense and they cannot move around, then they will eat the trees and strip them.

The Hon. MARK PEARSON: What would you say is the ideal width, if there has to be a corridor? What is the ideal width of a corridor and why? I am not sure who would be best to answer that question.

Mr DEANE: I might have a go at answering that. There have been different reports. I know Stephen Phillips of Bio-Link put down an idea of about 425 millimetres. I think Steven Ward, in a PhD that he did, put down about 400 and something. So it is a round about at least 400 millimetres.

The Hon. MARK PEARSON: So if a corridor was proposed to be 120 metres wide, what would the problem be for the koalas?

Mr DEANE: So this is not my particular expertise but it is about the habitat as well as the corridor so that they can live in that corridor. So with a corridor of 100 metres they will have to move on.

The Hon. MARK PEARSON: They will keep moving.

Mr DEANE: They will have to keep moving on.

The Hon. SHAYNE MALLARD: Is that the design? Sorry for jumping in there.

Mr DEANE: When we are talking about corridors, sometimes if you have a strategic area or a red flag area with lots of trees and you want to keep it, you might need to connect it with a greater koala blue-green grid type of idea. Then 100 metres will work. The Environment Protection and Biodiversity Conservation [EPBC] recommendation for a corridor is 100 metres but that is not an inhabitable corridor as such.

The Hon. SHAYNE MALLARD: If I am getting my head around this concept of core koala habitat, forest and then connecting corridor. I get the notion that koalas like to move between different habitats for breeding and feeding. So a narrow corridor between two core habitats by design would encourage the koalas to move through rather than staying. I know that is the case in some areas but would that be desirable?

Mr DEANE: It would be better than no corridor.

The Hon. SHAYNE MALLARD: Obviously, yes.

Mr DEANE: As long as you have got something. That is better than nothing.

The Hon. SHAYNE MALLARD: So 120 metres would not encourage koalas to hang around but a 400 metre corridor or more would be more like a habitat?

Mr DEANE: A habitat and corridor—so strategically key areas.

The Hon. SHAYNE MALLARD: Just as a point of difference. I just wanted to make that clear.

Mr LONZA: Just with corridor systems, we have been told that the corridor system behind Gilead, that is not good enough. Obviously it is good enough if koalas are making their way across it now. You can see them when they come into suburbs. They are using street trees to get from where they want to go. So corridor systems should be a certain width. We also know that along Appin Road that we see female koalas with joeys. So they are obviously breeding and moving along Appin Road as well.

The Hon. MARK BUTTIGIEG: I am interested to know about the process of dialogue to this point. This morning we heard from Lendlease and we heard from you people—our representative community. You have told us about council, you have told us about Road and Maritime Services [RMS] and the department of environment. What is your impression of the degree of consultation and the process around that, the level of dialogue about what is possible in terms of a compromise? Lendlease had several elaborate proposals this morning which they put to us. Has there been a high level of dialogue in that respect?

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Mrs GAY: No. Very little dialogue.

The Hon. MARK BUTTIGIEG: So nobody is overseeing a process of detailed consultation so that both sides of the argument get heard?

Mrs GAY: The only consultation recently has been the de-watering of the dams and the rescue of the turtles.

The Hon. MARK BUTTIGIEG: Right.

Mrs GAY: Other than that, nothing much.

Mr DEANE: The conservation dialogue goes just as far as they need to. After we held a protest out the front of Lendlease there was a little bit of dialogue. Then after that it disappeared and then no more dialogue. Now there is a bit more pressure, so maybe a little bit more dialogue. There is not a methodical process of saying, "How do we make this happen so that everyone benefits? If you look at the Gilead masterplan, that is obviously the case. There is no accommodation of koalas in there. They have got away with as much as they could. If you look at what is happening at south-east Wilton, it is getting away with as much as they can. Dialogue only happens when they feel they are not getting everything they want.

The Hon. MARK BUTTIGIEG: Because they are prosecuting the argument that they are providing enough corridor space and are enhancing the current situation with their masterplan. If only the Government would play ball with them and give them some direction, we can get a great outcome for everyone. Is that pretty much their view?

Mr DEANE: It is almost an overwhelming of riches, so to speak, in terms of they were getting everything they wanted from the NSW Office of Environment and Heritage and from the department of planning. The irony is—because they were involved there—that gave them the whole local extinction idea, so nothing left of Appin Road. The department of planning allowed the biobank at Noorumba so there was no additionality as it was already a reserve. Then it came around and bit them in the back because suddenly the EPBC said, "You have put the local extinction fence there, therefore koalas cannot get to your biobank. So you cannot use that biobank and you will have to get another one." When everyone gives you exactly what you want, and there is no pushback, strangely enough, it disrupted them.

The CHAIR: We are pretty much out of time but I know that Mr Pearson wanted one more clarifying question.

The Hon. MARK PEARSON: If a fence is built on one side or on both sides of Appin Road, how far will a koala travel to find an underpass? We have heard evidence that there are recommendations for only one underpass, or maybe two. The question is, how far will a koala travel to get through?

Mr DEANE: It depends where the underpass or overpass is put. If we put it where the koalas are moving from one spot to another—the hotspots where we are pulling dead koalas off the road—they should be able to go straight across. With Picton Road, there is only one decent-sized one and then a small pipeline next to it, and that is the whole of Picton Road. They have got to walk either one way or the other and that is why they come out at the end. But with Appin Road, they need to put a couple in—one at each end or where the hotspots are. So down near Gilead and Belltree kennels is a big hotspot. Also St Helens Park: With the fencing ending at St Helens Park, it is not going to stop the koalas because we are getting koalas further down on the end of Appin Road, walking up the road, if you know what I mean. So they are still coming up into it. With the grates—if they are going to put grates in—they are still going to have koalas further down as well pushing them into other areas. They should be at the hotspots. We can get scientists or specialists to find the hotspots but I could tell you where they are—

The CHAIR: Very quickly in relation to that, Mr Lonza, have you provided any of that information formally to Lendlease or council? That that is where the underpasses or overpasses should be?

Mr LONZA: Not at the moment, no.

The CHAIR: Anyone else on the panel?

Mr DURMAN: Well, yes. We have also spoken to the Office of Environment and Heritage about the same subject. What it has always come up with is that it has done its studies: No more than one fence all the way along and the only one it is going to be is at Ousedale. Then it will have to feed them across the Appin-Bulli road. Before they go through there they have got to go between the Georges River and the coalmine, which is a narrow block. When they get to the other side they have got two steep gorges, the Avon and the Cordeaux.

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Ms BULLIVANT: I provided feedback to the Roads and Maritime Services proposal for the widening of Appin Road of several corridor locations that were potentially available for it to take up and it declined. It said that its studies had shown that it could not do it there, it was too hard. I think that research is needed. Please fund research.

Mr DEANE: There is lots of information about where the—

The Hon. SHAYNE MALLARD: Could we have that tabled, Madam Chair?

The CHAIR: We have that document, yes.

Mr DEANE: We also had a koala roundtable that did include local groups and communities. That was with OEH and the planning department. There were good things. We were talking about overpasses and underpasses. Then one day they turned up and said, "We have decided to go with this local extinction plan. Don't worry about it. Thank you".

The CHAIR: I do not think they called it a "local extinction plan"—

Mr DEANE: No, they used another term for it.

Mr LONZA: With all the koalas that have been hit and killed on Appin Road and sightings as well, we log through BioNet. BioNet is obviously the one that the developers have to go through. At the moment I have noticed by looking at BioNet that there are a lot of records that are still not up to date, meaning that if we have got half of our records not on there developers will look at it and think there is nothing there and they can just go ahead with development. We need that to catch up as well.

The CHAIR: Thank you very much. I am afraid we are out of time. What is clear is that we may have further questions to ask you in terms of supplementary questions or questions taken on notice. I am not sure whether anyone took questions on notice. I am sure Committee members may have further questions for you afterwards.

Mrs GAY: There are some questions in my submission for you guys.

The CHAIR: Yes. Thank you so much for attending today's hearing.

(The witnesses withdrew.)

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STEPHEN PHILLIPS, Managing Director/Principal Research Scientist, Bio-Link and report writer, Campbelltown Plan of Management, on former oath

The CHAIR: Welcome back, Dr Phillips.

Dr PHILLIPS: Thank you, madam Chair.

The CHAIR: As you have already appeared before this inquiry—Dr Phillips appeared at our Ballina hearing last Friday—would you like to begin by making a short opening statement?

Dr PHILLIPS: Yes, I would, thank you very much. I would ask that you please do not talk to me about the Pilliga, just to get that straight right now. I am also not sure of where things are at administratively. I did send down a deposition but I have just been advised that you do not have it in front of you. Is that correct?

The Hon. CATHERINE CUSACK: When did you send it?

Dr PHILLIPS: It would have been Wednesday or Thursday. Rather conveniently, somebody has photocopied 10 copies of it.

The CHAIR: Please continue.

Dr PHILLIPS: So you do have it or not?

The Hon. CATHERINE CUSACK: The secretariat has it but not the members.

Dr PHILLIPS: Essentially that is what I will probably talk to, just to briefly go through it. Thank you very much for the opportunity to appear again. If you have the deposition in front of you, you will see that I have been working with these animals down here since the mid-nineties. Over the last—

The Hon. CATHERINE CUSACK: Sorry, can I just ask a question? Will the documentation be circulated to the members?

The CHAIR: Yes. They are just making copies.

The Hon. CATHERINE CUSACK: It is just that he is referring to it now.

The CHAIR: They are making copies.

Dr PHILLIPS: Will I wait, Madam Chair, or just—

The CHAIR: The secretariat has just clarified that it was given it with the intention that you would table it at today's hearing, that it was not given as a formal submission. That is what is happening now. We will circulate it now.

Dr PHILLIPS: Okay.

The CHAIR: Sorry about the confusion.

Dr PHILLIPS: No, that is alright. Thank you. I apologise from my end as well. I have been working down here since the mid-nineties. Before I go on, I want to acknowledge the work of Rob Close in bringing this population's attention to the broader community initially and certainly his contributions over a period just slightly a bit more than what I have been engaged with it. Certainly what brought me down here in the mid-nineties was following on from work by Steve Cork from the CSIRO and looking at tree preferences of koalas. We were working on methodologies to identify tree preferences. Subsequent to that we published some of that work in *Wildlife Research* and the peer-reviewed literature. Over the last five years or so we have been working very closely with Campbelltown City Council and the Office of Environment and Heritage [OEH] to a lesser extent looking at issues associated with koalas down here. I want to discuss probably four things really to put what I want to say into context. I apologise if I go a little bit over my two minutes but the intent is to fill you in with a bit of information and then we can go from there.

The first thing I do want to talk about is context and the landscape context. The Campbelltown and Wollondilly-Picton koalas are what we call naturally occurring, low-density koala populations. They occur in this landscape very naturally at low densities. Steve Ward's work and other more recent radio tracking work—we are talking about individual home ranges of 30 hectares to 35 hectares per animal. That goes partly to your earlier question about tree metrics, which I can certainly talk to. The landscape has a very low-carrying capacity for koalas. The relationship between soil fertility and preferred food trees is quite a complex one but that is what dictates the home range size. The thing about the Campbelltown koalas—and indeed Wollondilly-Picton but let's

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focus on Campbelltown—is that it is one of the few populations that we are aware of that is in full-blown recovery mode now. When you go back in time and you look at the history—and I am sure Rob would say the same thing—as best as we can pin it down, when koalas first started to appear in the landscape here in the early nineties it was probably just a mere handful of animals that were there. It was just a relic population. We suspect that a major fire event somewhere in the seventies probably took that population out because it had lost most of its habitat on the Cumberland Plain.

The important part of that in context is that, yes, this population is in recovery mode but it is still a very small population. Our best estimates of how many animals currently comprise the Campbelltown population is around about 300 to 400 animals in total at this particular point in time. There is probably a similar number down around Wollondilly and Picton. That population size is still not big enough to give this population long-term resilience. There are a number of key genetic metrics that are in place to say, "Get to 500 and then get to 5,000." These populations are still very vulnerable.

What is interesting about the Campbelltown koalas and the Wollondilly-Picton koalas is that because they are progressively expanding their ranges now and they are occupying part of their historical distribution, they are appearing in pockets where they have not been seen before. They are now dispersing from places like the Wedderburn Plateau at high frequencies. This is reflected in the increasing roadkills that have been talked about earlier today. Everything that we see and everything that we are learning is consistent with this recovery trend that is going on with this population.

Given the perspective of a statewide conservation status, there are only a handful of populations that are in this recovery mode at this moment. From my perspective, which might be a little bit selfish, you would expect that these populations need to be fostered. We need to understand what is going on with them and we need to protect them and allow them to recover, not impede them or, indeed, halt that recovery process. The State environmental planning policy [SEPP] is about reversing the current trends of the population decline. The Threatened Species Conservation Act, the Biodiversity Conservation Act—all of that is trying to diminish trends towards extinction. Here we have a population that is in full-on-blown recovery mode. It should be fostered. It should be encouraged. We should be enabling that to happen.

In that sort of context—I guess that is where I wanted to introduce that concept of endangerment and where this population is at and why we should be allowing it to occupy parts of its former home range and former distribution. It is a very important thing that we do. As part of that, Campbelltown City Council has prepared a comprehensive Koala Plan of Management. That has now been available since 2016 but it is still not approved by the department.

The Hon. SHAYNE MALLARD: Is this the one?

Dr PHILLIPS: That is the one. Because I have been involved with a lot of comprehensive Koala Plans of Management in New South Wales, this is the one that has learnt from all the other ones before. It is a very good plan. There is a community expectation that Campbelltown will have a koala plan of management in place. When you look at the work that the council has put in and the work that we do and you say, "Here is a good plan", and the fact that it just sits there now on a government shelf, it is nearly two years down the track and the arguments and the causes and the issues that have been discussed here this morning about corridors and road vehicle strikes and all that sort of stuff, that is all in that plan. There are some key habitat linkage areas that we identified way back in 2015 and 2016 as part of this process. The northern part of the Gilead site, Menangle Creek, and the southern boundary of Gilead were all identified as key habitat linkage areas for koalas. I will now table the reference, this document.

All I have here is a figure from the comprehensive plan that shows where the primary koala habitat linkage is that was identified back in 2015 and 2016. It is reasonably self-explanatory. There is a sense of frustration that comes when you listen to all the arguments to and fro about where this corridor should be and how big it should be. They have already been identified. The locations have been identified. You would hope that in a sort of society that looks for good corporate citizens, the development component of that would embrace a concept like that and be a good corporate citizen and say, "Here is a plan. It may not be endorsed but here is what council wants. Let's go with this. Let's talk about it at least." But that does not happen and so it can be quite frustrating. A key point I wanted to make there was that the plan has been there for a few years now but it is still not approved.

The Hon. SHAYNE MALLARD: I will ask for clarification. The plan is not approved by the Office of the Environment and Heritage or by the council. Is that what you are saying?

The CHAIR: No, Planning.

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Dr PHILLIPS: No, by the Department of Planning. It has a statutory role under the SEPP to approve plans of management. Council can adopt a plan of management such as that and it forwards it to the department, which then supposedly approves it. Then it has a statutory weight and it influences koala management planning decisions.

The Hon. SHAYNE MALLARD: There is a logo of the Office of the Environment and Heritage on the front. It has already ticked it?

Dr PHILLIPS: I assume so, yes.

The Hon. SHAYNE MALLARD: That is the Department of Planning.

Dr PHILLIPS: I guess that was leading me into the Gilead situations. I have alluded to that. I will not dwell on it. The corridors are there. I am happy to talk to it and certainly take questions about it. The other thing that becomes frustrating is the Appin Road upgrade. When you have this knowledge at your disposal, you have a history of road deaths and vehicle strikes, you know that there are potentially solutions in place and you would expect a statutory process to take heed of the available knowledge and the available records and you expect it to respond accordingly. The second thing I am going to table is a part of a Review of Environmental Factors [REF], which relates to the Appin Road upgrade at Mount Gilead. I am going to draw your attention to a few things in there because sometimes it gets very frustrating.

The essence of it is that this is an REF, which is a statutory document. It goes on public exhibition. People comment on it and then ideally they take comments on board and you end up with an improved REF. What we see in that particular REF—there are two REFs that relate to the Appin Road upgrade between South Campbelltown and the village of Appin, one by Eco Logical Australia and the other one by Lendlease Communities, which this one is. The two REFs that I reviewed for council and provided it with advice are most notable for the extent to which they differ rather than what they have in common. One of them says, "Yes, there are some significant issues here with koalas. We think you need to refer this to the Federal Government et cetera."

The other one says, "There is nothing to worry about. These areas are not important for koalas. There is no future for koalas west of Appin Road. We are going to fence them all out"—this fence that everyone is talking about—"and no need to worry about anything. Nothing is significant. There is a koala plan of management. Don't worry about that; that doesn't mean anything either." This is in the document that I have just given you. I draw your attention to particular paragraphs but if you read 3.10.1, all through that section you will see continual discounting of the knowledge in favour of a very poorly informed and naive alternative, which will not work and will, in fact, contribute to increased vehicle strikes on koalas and increased road mortalities. I have been absolutely gobsmacked by, I guess, the stance that that particular REF took because it is reflected in the design outcomes. I think Mr Deane called it a local extinction plan, and that is exactly what this REF will do if it was enacted.

We know enough about how koalas react to fences. We know what they do. There is a common trend in international literature called the end-of-fence problem. That is exactly what is going to happen here: The animals hit the fence, go to either end, onto the road—dead. The other component is that there is work that has been done for council—very clearly established now between the Nepean and the Georges River—koala populations are in contact across the southern end of the Gilead site. That is the first time this has happened. This is again a part of the recovery trend. What is going to happen to the animals that disperse eastwards from the west? They are again going to hit this fence and—bang!—they are dead. This is a road trap. This can become a black spot and a death spot for koalas if that REF is enacted.

The Hon. CATHERINE CUSACK: Is Lendlease or the Roads and Maritime Services [RMS] the author of this document?

Dr PHILLIPS: Lendlease Communities prepared the document on behalf of RMS.

The Hon. CATHERINE CUSACK: Lendlease has been telling us that it wants to put the underpasses in and that it is the Office of the Environment and Heritage that will not accept that proposal. It is confusing.

Dr PHILLIPS: That is very confusing and certainly a bit alarming. You would imagine that agencies should be on the same page with conservation outcomes, at least road design outcomes and what is required. There is no doubt that these two populations are in contact. We know where that is because of the work that we have been doing for the council. There is an overriding need to maintain east-west connectivity. While both populations are now recovering from what was probably small founder populations, the great value of them coming together is now an exchange of genetic material, an increase in the number of alleles and their genetic diversity and a bigger population size ultimately.

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But, more importantly, the biggest threat to these koala populations is the potential capacity for a fire event east of Appin Road. That is pretty well on the cards. When you have 60 per cent, 70 per cent or 80 per cent of the population east of Appin Road, if that goes up all of a sudden, the future for these populations is on those cells west of Appin Road and allowing them to feed back in. That is how this works. The value in a recovery sense, allowing the koalas to reoccupy parts of their historical home range, exchange genetic material, is part of a good conservation strategy for the population as well because it means you have some insurance in place if something does go wrong east of the highway, east of Appin Road. Sorry, I realise I have talked a bit more than my two minutes but there are a bunch of issues here that professionally I have found quite confusing. We have been asked on several occasions to model the impacts of upgrading Appin Road and on every occasion we have reported you have a major issue here with connectivity.

If you proceed with an east-west fence or a north-south fence you will escalate vehicle strike, you will not diminish it. We have supplied that advice formally to the Department of Planning, to the Office of Environment and Heritage and indeed to Campbelltown City Council as part of a connectivity analysis for them but it just falls on deaf ears. That is pretty alarming and I do not know why. It is not like there is any agenda that we particularly have apart from making sure there is good information before Government to make decisions about recovering populations like this. We learn a lot from the North Coast where there have been a lot of highway upgrades. We know what works and what does not, what fencing works, where overpasses are required and where underpasses are required. I will probably pick up on some of the other things that people have talked about—

The CHAIR: Before you do, Dr Phillips, the advice that you were just referring to that you have provided various agencies in relation to Appin Road, would you be able to provide that to the Committee as well?

Dr PHILLIPS: I can. I would be happy to.

The CHAIR: It does not have to be today.

Dr PHILLIPS: I am more than happy to. They are pretty robust reports. I am not saying that to my own credit but they are quite detailed.

The CHAIR: Members are champing at the bit to ask you specific questions.

The Hon. MARK PEARSON: I just want to go to what you just said. In your report, how do you address the specific concern of the fence for the koalas? If there is a serious concern that the fence will cause them to go to either end and still be hit, and they are probably exhausted when they are hit, what is your proposal to resolve that concern?

Dr PHILLIPS: That is a good question, thank you. Clearly we are a bunch of koala tragics. We do a lot of work on koalas and a lot of that is about the impacts of vehicles and minimising vehicle strike. In 2014 the Roads and Maritime Services [RMS] came to us and they said, "We are still getting koala roadkill from Chinderah down to Ewingsdale with the Pacific Highway upgrades and we do not know why. Can you go back in to investigate what was going on, why the animals have been killed, where they are being killed and what are the solutions?" So we did that and we got some very surprising results. We tracked back all of the koalas who have been killed on that road over nearly 15 years of data. As part of the job we looked at things like fencing standards and what sort of fencing was in place at all locations.

When most people think about wildlife exclusion fencing you tend to see what you see on the highway: fairly tall, 1.8 metres, floppy top, a shield thing at the bottom. That is the standard approach to fencing. We tracked 11 different fencing types over the 52-kilometre traverse of the highway. Some of it is a bit humorous and embarrassing. When the big floppy top fencing disappeared into the bush it became star pickets and chicken wire and then it would reappear at the other end with the floppy top again. That is fine but the amazing thing was—as I said, there were plenty of surprises—that everywhere there was a fence, it did not matter what the fence was, there was no vehicle strike. Ninety per cent of the vehicle strike occurred in areas without fencing or at intersections and interchanges.

We gave RMS some advice about how to retrofit the exchanges and the intersections to stop koalas getting into road reserves and we also made some commentary about the quality of ecological assessment and informing these things to begin with. Those retrofitting recommendations have all been put in place now at the Gulgan Road interchange, Mullumbimby, Brunswick Heads, and there has not been one single koala on the road since those recommendations were applied. They involve a combination of extending the fencing, filling in the gaps and, as part of the work we have done, we have designed these koala-specific grids. The intent is to stop the koalas entering the road reserve or entering the exclusion area. I heard someone in the earlier session—one of the big problems at Picton is that unless they close off those fence ends the animals will do just that: go to the end of

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the fence, walk around, get caught on the road and die. There is a lot of money invested in fencing, so if you are going to do it you do it properly. But you have to close off those exclusion zones.

The Hon. MARK PEARSON: How far apart do you recommend there be underpasses or overpasses?

Dr PHILLIPS: That depends on the quality of the habitat that the road is going through and it depends on whether you are retrofitting or whether you are progressively putting in underpasses as you go. If you are in high-carrying capacity country where you have average home range sizes of five hectares to six hectares, then certainly best practice would probably imply or say, "We need an underpass probably every 250 metres to 300 metres." When you are in low-carrying capacity country, like we are dealing with here, we are probably saying best practice would be to put one in every 500 metres to a kilometre because that recognises the individual home range sizes. Again with places like Appin Road it is topographically constrained because the bulk of the road is built on a ridge line and there are very few opportunities for putting in underpasses, using natural drainage lines and the like.

We know that fencing works very well when used in conjunction with underpasses. The two of them can work very well but one cannot work without the other, if that makes sense. Appin Road presents some challenges because the bulk of it is built on a ridge line, so that then escalates the potential costs of mitigation where you start to think, "The only solution here is an overpass." The overpasses that have now been constructed at Coffs Harbour on the North Coast are very expensive but they work. They take a while to mature and develop but they do work. With Appin Road we have identified at this stage a minimum of three locations where connectivity structures could be provided and we have specified what they probably need to be.

The Hon. MARK BUTTIGIEG: The presentation we had from Lendlease this morning was that it was going to do all these great things and they were a win-win for everyone, if you like. That was the way it was presented. In particular, it talked about funding an underpass. But you are not aware of these proposals? This is part of the problem. No-one seems to be facilitating an open dialogue between the stakeholders. That is one thing. The other thing is in terms of the plan of management, which I understand is the process, so the council prepares a plan of management and puts it up to the Parliament and there is just a roadblock there. Do you have any views on why they have not come back or why that has been sitting there?

The Hon. MARK PEARSON: You can say it.

The Hon. MARK BUTTIGIEG: The point is if there is a process put in place by the Government for these things to happen, then you would imagine the process would be followed through, and it is the Government's responsibility to make sure that happens. I am interested to know what the people who have been close to this understand about why this roadblock is there.

Dr PHILLIPS: The reality is I do not understand why there are roadblocks there. It is the ineptness and the stalling that goes on. Campbelltown is not on its own. There is Tweed, there is Byron, where at least plans have been prepared and the Government just sits there and they do not get approved. There was a conversation with yourselves at the last hearing and I have gone away and have been thinking about this afterwards, going "How can we fix this?" The SEPP in principle is good, it has got the basic mechanics in there, and much of the work that we have done since its inception has been about making it work. And the one hold-up and the one thing that is impeding it the most has been the Government's inefficiency in approving the comprehensive KPOMs.

If I was the mayor of Wollondilly or the planner at Wollondilly I would be saying, "Gee, Campbelltown have prepared a comprehensive koala plan of management and we are two years on and it is still not approved. Why would I bother going down that path?" One of the recommendations I have been thinking about since your questions is, "How can I fix that?" I can remove the authority from the Department of Planning and I can give it to an independent advisory committee who can turn it around very quickly based on merit. As part of the amendment to the SEPP, one of the recommendations is take that provision out that says the plan must be approved by the director and give it to an independent panel who can just look at it and turn it around very quickly.

The Hon. MARK BUTTIGIEG: Let us say in an ideal world where intentions become reality this were to be approved, what would impinge, affect or compromise Lendlease's master plan? How far apart are they? Are they totally incompatible or is there a pathway through there?

Dr PHILLIPS: I think there is a pathway through there. Again it is a good question because if the comprehensive KPOM had been approved it would have said, "The northern end of your site is a key habitat linkage area, it needs to be a minimum of this wide on your side of Menangle Creek." It is not an argument. It is under D2—done. Yes, but it has not got trees on it. Plant it up; it is intended to be a key habitat linkage area joining the Nepean and the Georges River populations. It has been identified—no argument. That is not reflected

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in the current footprint or structure planning for that site. Even the Government's structure plan for the Greater Macarthur growth area does not acknowledge it.

So you can see that in that northern corner where the pinch point currently exists, development has extended all the way as far as it can possibly go. I would be saying pull it back because you need to have that footprint in place, you need that linkage in place; the population's viability is contingent on it. And then there is another one at the southern end. I think Mr Deane talked about red flags going up, and that is because of these little patches that are in there as well. The plan also makes provision for what it calls the strategic linkage areas, which are filling in the gaps that link the key habitat linkage areas. So that you end up with a network of linkages across the landscape that function to feed the key habitat linkage areas. In a development context they need to break it up by protecting the water course and drainage lines using a narrower width to create a forest of corridors to link up the key habitat areas.

Can I go back to something that you mentioned earlier, which was about this underpass? What we have learnt over the years is that it is one thing to say yes we are going to put in an underpass, but you have to also understand what that means from a koala's perspective and how big they need to be. We have done a lot of work on this and I have looked at Noorumba Reserve. Can an underpass go in there? How big does it need to be when you have got, like, 60 to 80 metres of road to get under? It needs to be, like, three metres by three metres—a big thing. So when you look at "Can I get that in place there?", your road has got to go up to get that height. The thing that I always worry about and I am a little bit fearful about in this context is that yes you may say, "We will put an underpass in place", but it may well not even be big enough for the animals to use because you have got constraints. That ultimately led me to think, okay, what has got to happen at Noorumba is it has got to be an overpass because there is just no play there in the road to allow you to get that depth, otherwise it is flooded all the time or it is choked. So underpass dimensions are very important.

The Hon. MARK BUTTIGIEG: A good starting point might be to facilitate a dialogue between people like you and Lendlease.

The Hon. CATHERINE CUSACK: Have you seen the Lendlease proposal for a corridor connecting the two rivers together?

Dr PHILLIPS: Is this the original one that was put in way back? I have not seen anything recently.

The Hon. CATHERINE CUSACK: It is a 200-metre wide corridor that follows the creek line and then connects up. Have you seen that?

Dr PHILLIPS: No, I have not, but I would already say that it is too narrow anyway at 200 metres.

The Hon. CATHERINE CUSACK: What would your advice be about an appropriate width?

Dr PHILLIPS: Again, Mr Deane mentioned it. We have all independently derived this sort of 400-metre type width. And just to put some flesh to that, one of the things that has been missing in the corridor debate in the context of koala management has been a rule: How do we determine how wide a buffer area needs to be for koalas or how wide a corridor needs to be? In Campbelltown we looked at work that had been done by Steve Ward and we came up with a rule. Because when it comes to identifying areas of core koala habitat sometimes you can have clusters of generational data right up in the corner of the grid cells that we otherwise use to identify core koala habitat. So we determined that we would use—I hope this makes sense—the square root of the median home range size of female koalas to determine what the corridor width and the buffer width needed to be, and that answer is 425 metres. So it becomes a rule of thumb. If you are on the North Coast and you have got high-density koala populations and your animals have got a five-hectare home range, it is the square root of 50,000. So your buffers and your corridor widths become scalable to the carry capacity of your landscape and it is a good workable rule of thumb.

Why do they need to be so big? It is because the animals have big home ranges. Koalas have long-term fidelity to their home ranges. They are socially challenged a lot of the time, so they do not like people coming into their home ranges. So you have got to allow slipstreams in that landscape so koalas can pass each other without getting into blues. So tiny allows them to encounter each other and then affliction and aggressions whereas the bigger width, based on understanding of their home range size, allows individual animals to have home ranges. So you are facilitating the movement of genes as well plus the widths are wide enough so the animals can slipstream past each other in a dispersal context without getting into drama. That is the reason that width has been derived. In the context of Gilead, we would see them having an obligation for a minimum of 200 metres on the southern side of Menangle Creek; it would be their contribution to that primary linkage area.

CORRECTED

The Hon. CATHERINE CUSACK: There are a number of easements and lines drawn on maps in relation to Gilead. One includes where a mining lease was approved but it has not gone ahead, and I understand that is the difference between stage one and stage two. The line is literally about a mining approval that did not go ahead. Then there is the gas line and there is the creek line. My question relates to determining koala habitat and where the corridors should be. Can that be managed within the context of a property that has already got these predetermined lines drawn all over it? Because clearly, if I can just clarify, they want to do housing development here and housing development here and where they do not want to do housing development that is where they will do the corridor. I am just wondering if it works that way from the point of view of the koala.

Dr PHILLIPS: What we would do in this sort of context if we were given the brief would be to say, "Okay, what have we got to do here?" The first thing we do is we study the koala population and we find out where they are and how they are using that landscape, and that determines the management recommendations. It allows us to then estimate the scale of impact; if there is going to be a negative impact, then work out how to ameliorate that. So it is all driven by koalas and knowledge of how they are using the site in the first instance. In most of our planning documents we require things like stadiametric surveys of the preferred food trees, so we can quantify what is lost or where the key habitat areas are located. We will encourage developers and Lendlease to work around that knowledge. Here is what keeps these animals here, here is what keeps them alive and can we work in that framework to give you a development footprint as well. We have a reasonably good knowledge about how koalas are using that Gilead site.

Again, from work we have done from Campbelltown we have broad connectivity at the southern end of the site through the Beulah linkage predominantly, which was one of the key habitat linkages to be identified. There are resident animals living in the Noorumba Reserve. It is just a matter of function to get those two areas linked up. We know how they are using the site. It is part of some of the work which Madam Chair referred to. We have worked out things like the minimum gap crossing threshold for koalas. We know how we can fill in gaps and know where they will go and where they will not go.

We can overlay those things across structure plans or across development precincts and say, "Here is an overlay for us to work with. What can we get out of this?" That is a win-win for the koala and a win for the development footprint as well. One of the problematic things with the structure plan for greater Macarthur is that it again does not acknowledge the Campbelltown comprehensive koala plan of management and the presence of those key linkage areas. You can see that it has allowed development footprints to intrude.

The Hon. CATHERINE CUSACK: That links into my final question. The koalas often cross from one local government area to another without realising it. How do we plan? When you are talking about problems in planning connectivity Campbelltown has its plan. Is there a need for an overarching koala corridor plan that all the councils can be working to so that Campbelltown is not connecting them over there which is not interfacing with what the next-door council might be up to?

Dr PHILLIPS: That is an awesome question. It is one of the best. How I am going to answer it I hope does not get too complex. The OEH came to us and said, "Can you talk to us about koala connectivity in the greater Macarthur growth area?" So we pooled Wollondilly and Campbelltown LGAs together. We did a very thorough connectivity analysis using an internationally developed connectivity program. We said, "Here is the connectivity that currently exists in the greater Macarthur growth area for koalas. Here are all these crossed pathways, here are the habitat patches, here is how this landscape will work."

Koala debates can be quite emotional sometimes. There is always a need for objectivity in terms of how you communicate and how you work with the issues. It sounds like I am going to drop a name here but I am just telling you what it is called. It is called the Delta Integrated Index of Connectivity. It is an international standard for how you work out where the key regional linkages are in the landscape. To get back to your question, we did the Campbelltown LGA quite separately and then we did the greater Campbelltown-Wollondilly as a whole. Both projects independently identified the Gilead area as a focal regional connectivity linkage for koalas, quite independently. I looked at it and said, "Wow, that is amazing." The point is that the information was there, the linkages were there. We are saying, "Here they are. There are the lines on the map that you have all been looking for, for both Campbelltown and for the greater Macarthur growth area."

Conveniently that particular independent model independently validated the key linkage areas in the Campbelltown comprehensive koala plan of management. It identified the linkage areas across Appin Road, Beulah, Noorumba and Mallaty. It has reinforced every bit of knowledge that we have had. We have also been able to then model, which is what the Government asked us to do. It said, "Can you model the impact of the structure plan on the connectivity?" And we did that as well. We were able to establish where linkages were lost and we made a broad recommendation—and I have got a table in this report here—about our general conclusion.

CORRECTED

It was that the footprint was too big. It needed to contract a bit to give greater robustness to the linkage areas, particularly in the north, given what we had found out about how important that area was.

One of the things that I have always tried to do with koala stuff is take the emotion out of it and just say, "Here are the facts. Here is a program which is internationally recognised. We have used it. We have not influenced it. Here is the answer." The information the Government has needed to put a more sustainable footprint on the ground for greater Macarthur is there; they have that. The linkage area that everyone is interested in and where the corridors, the east-west connectivity, needs to be, they have got that. The knowledge about what needs to go in place and where—overpass, underpass, what aspects of the environment lend themselves to making sure this connectivity works—they have got that. The knowledge about width and landscape, carrying capacity and food trees and what drives the ecology of these animals—they have got that. What else can we do?

They have all the information they need. That sounds a bit arrogant and I apologise for that. That is what gets very frustrating in this whole koala conservation game. You work to supply objective, unemotional information. You say, "Here is the answer to your problem", and then they go, "Great, thanks. Oh, who won the footy on Sunday?" It is not taken on board. You get to a stage when you go, "What do I do now?" It gets very frustrating. The answers they need are there. I am also really mindful that the costs of amelioration are also great. I asked colleagues in RMS, "How much does it cost to build an overpass these days?"—\$10 million to \$11 million. By the time you start saying we need to create two, maybe three on Appin road, there is \$30 million. Fencing is \$180 a linear meter. Grids are 10 or 12 grand a grid. Grids are not just going to be at intersections—

The Hon. CATHERINE CUSACK: Especially if it turns into chicken wire when it goes down.

Dr PHILLIPS: Chicken wire will work well. It is not just a matter of saying, "We need to fix the fence ends." Every driveway, everything that enters that road corridor has to be worked on so that animals cannot get in. It is not just koalas, it is echidnas, it is all sorts of things. Again, I hope I do not sound arrogant but the answers are there. We have the knowledge and we can do this. I am going to go back to what I was starting to talk about. These are recovering populations. We need to make this happen for them and allow these populations long-term security. The answers that the Government needs have already been provided to them.

The CHAIR: In relation to the recovery of the koala populations and what is needed, you are aware that we met with Lendlease today and were shown around some of Gilead, as members have mentioned. Officers of Lendlease provided us with a map of the area, which is what the Hon. Catherine Cusack was just referring to. I have that in front of me. If I table this, would you have a look at it, given everything you were just talking about in relation to your intimate knowledge of the area and the mapping and everything you have done. You will notice the hatched green line is what they are referring to as the koala corridor. I think it is 200 metres wide along there. What does that look like to you in terms of your stated ambition to ensure that the koala population in this area continues to recover?

Dr PHILLIPS: I can see that the indicative corridor is more or less in accord with the key habitat linkage area that has been identified in the KPOM but it is half the width that ideally should have been put in place. I can see that there is no recognition or acknowledgement of the Menangle Creek—Noorumba key habitat linkage area that is in the koala plan of management.

The CHAIR: Is that the one you were talking about in terms of the north—

Dr PHILLIPS: Yes. It is the one that is at the north of the property. I assume that that is because there is a conflict there. There is developable land there, so there is a yield that is potentially going to be impacted if a corridor was to be put in place. I understand that and respect it. It gives 50 per cent of what is otherwise required. It gives less than 50 per cent because it is not proposing to consolidate a key habitat linkage area. It is working off a width that the koala plan of management otherwise ascribes to what is called a "strategic linkage area", which are meant to connect the big ones. There is no consideration given to the green islands that are in there and how they might be integrated into a strategic linkage network either.

The CHAIR: Could you explain to the Committee the area that you have mentioned a couple of times now, the north. You are saying that the bigger area of habitat to the north needs to be protected. Can you explain why that is, which area?

Dr PHILLIPS: Yes, I am pretty sure I can. You can see as the habitat comes out of the Noorumba Reserve it goes from being quite wide to very, very narrow. There are resident animals living in Noorumba Reserve at the moment and the options that are open to them or their joeys when they disperse from there are either to go back out to the road where they potentially get run over or to disperse to the west along a very thin

CORRECTED

riparian—I will not call it a corridor, but a very thin riparian drainage line really with scattered trees along the edge of it.

Part of the strategy in the comprehensive KPOM was to reinstate that linkage. Given that you have got resident animals already in Noorumba—great; that is awesome—and they are going to need a way of dispersing, you need to allow for east-west connectivity. Part of the planning strategy was to reinstate that connectivity in that key area where you have got populations who will disperse into it immediately. It will take a while to regenerate but the sooner that is done the better.

The CHAIR: Let me know if you cannot answer this. How much of the current Lendlease development do you think can still go ahead, if it can, while ensuring that the koala population can continue to recover? You are not here arguing that development cannot occur.

Dr PHILLIPS: That is correct.

The CHAIR: You have obviously been the author of the koala plan of management in terms of sustainable or sensitive development. What would you recommend to the Committee in terms of the Lendlease development?

Dr PHILLIPS: I am probably going to answer this with a little bit of humour, I hope. I live in hope that one day I will see a development footprint or a structure plan that reflects the requirement of the koala management plan, particularly the comprehensive one. Certainly when we were preparing this plan for council we did not have the Gilead development in mind; we just had sustainable koala management in mind. Part of that planning was we need to look at linkages in the landscape. We did not know then that the Georges River and Nepean River populations would be in contact.

We were just looking at it as a landscape. We now know that the two are and they are through that site and we know that independent analysis of the habitat patch network, using the General Approach to Planning Connectivity at Local Scales and Regional (GAPCLOSR) framework, has also identified it and said that is a key linkage area. So the science is there to say this is what needs to go on the ground. When we were discussing with council the concept of strategic linkage areas—that is why you will note that the koala plan of management is not so much loose about it but it is very flexible, and it is encouraging landowner engagement, because they are meant to be flexible. What we are looking to do is provide networks that link up the key habitat linkage areas.

The Hon. MARK BUTTIGIEG: What you are saying—correct me if I am wrong—is that the koala plan of management and that are not necessarily irreconcilable.

Dr PHILLIPS: No, they are not.

The Hon. MARK BUTTIGIEG: It is just that no-one is actually looking at it and trying to get it through.

Dr PHILLIPS: Yes.

The CHAIR: In your opinion, what does it mean if the current proposal goes ahead as planned without making changes more in accord with the draft koala plan of management? In your opinion, what does that mean for the koala population?

Dr PHILLIPS: My apologies, Madam Chair. Are you talking specifically about the Gilead development?

The CHAIR: Yes.

Dr PHILLIPS: I think the koalas of south-western Sydney will be the poorer for it. There is always a tendency for us humans to try and impose our thoughts on how koalas use the landscape. In actual fact we have got to let them teach us how to plan around the landscape. The other concept or the other context that has to happen in Gilead is that we have talked about—and again it is in the plan—this concept of enclaving. You cannot expect people in here to not have dogs, for example.

So you build this development so that it excludes the koalas from the residential component and you make sure that your access roads and regress roads are secured so that koalas cannot get in, dogs cannot get out, all that sort of stuff, so you keep those two elements separate. Again the tools and the techniques are available to make that happen. But, yes, they would be poorer because we can look at it now and go, "That makes sense to us to put that linkage there", but we know what the koalas are already saying to us is that we have got a pinch point here. So that is what the plan is trying to achieve for them.

CORRECTED

The Hon. SHAYNE MALLARD: Madam Chair suggested I ask you these questions, Dr Phillips, and I acknowledge your expertise. It is not about the local koala population; I am just going to take advantage of you being here. First of all, it is encouraging to hear the news that they are rebounding. That is great news. I live in the Blue Mountains. There are media reports of koala sightings in Lapstone, above the Nepean River, and also a report of a koala sighting up at Blackheath. Are you aware of that? Is that koala population rebounding again a little bit?

Dr PHILLIPS: I do not know. Again you throw analysis at the records, you look at them and see what they are telling you. The Blue Mountains have always been a mystery from a koala management perspective.

The Hon. SHAYNE MALLARD: Many perspectives.

Dr PHILLIPS: I remember someone put a radio collar on a koala in there a few years back and he just took off. He was a male and he never contacted other koalas. He just wandered around for years. Everyone got bored with following him because he just hung around.

The Hon. SHAYNE MALLARD: That leads to the second part of my question. I do not think it is the right term but rewilding or introducing. Let's say this population got to 5,000 and it is a healthy population. Is it a feasible option in the future to reintroduce koalas to habitats where they were once before?

Dr PHILLIPS: Very definitely, and that is what these animals are teaching us now. They are actively re-colonising areas where they were before.

The Hon. SHAYNE MALLARD: And meeting up again.

Dr PHILLIPS: And meeting up again. To me, the meeting of the Nepean and the Georges rivers populations is just, like, "Yes! Go for it."

The Hon. SHAYNE MALLARD: That is a positive thing for the future. Thank you.

The CHAIR: Thank you so much, Dr Phillips. You have filled another hour of your time for the Committee very ably and we could have kept going. You have taken some questions on notice. The Committee has resolved that answers to questions taken on notice be returned within 21 days. The secretariat will contact you in relation to the questions you have taken on notice and if any members have supplementary questions or additional questions. You are happy to receive them?

Dr PHILLIPS: Very happy; whatever I can do. Thank you very much.

The CHAIR: Thank you again for all of your incredible work for the koala over many years.

(The witness withdrew.)

(Short adjournment)

CORRECTED

MATTHEW WALLACE, Managing Director, Residential, Lendlease, affirmed and examined

RANISHA CLARKE, General Manager Operations, Communities, Lendlease, sworn and examined

ROBERT HUMPHRIES, Lead—Environmental Offsets and Biobanking, Eco Logical Australia, affirmed and examined

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

Mr WALLACE: Thank you for the invitation to participate in today's hearing and for visiting our site at South Campbelltown this morning. We agree with the local community that this site has a unique heritage with great environmental potential. The appeal of Gilead to future residents is its natural beauty. We are enhancing the biodiversity of this site and preserving its natural beauty for future generations. I am looking forward to putting on the public record Lendlease's commitment to preservation of the natural environment, especially koala habitat. I want to make it clear at the outset we are determined to deliver a net improvement for habitat and koala.

There are four parts to our environmental approach for this project. Let me tell you about our approach and the practical measures we are proposing to take. First, an evidence-based approach: Our approach is informed by over 1,200 hours of site investigations, research and planning. Our starting position is that we have assumed all existing eucalyptus trees are koala habitat, even the individual scattered paddock trees. For stage one we have had an arborist look at every tree outside of the conservation land. This involved an individual health assessment for over 800 trees and a specialist ecologist separately identifying and assessing potential habitat trees.

Next, the physical protection measures: We will construct fauna fencing along Appin Road to Government's specification. Notwithstanding the advice of Government's environmental experts, we are prepared to construct two koala bridges across Appin Road to connect koala habitat, subject to roads authority approval. We are also prepared to construct a new koala underpass as part of the stage two proposal should the relevant authorities agree to include such a structure. Public education and awareness: We will provide ongoing environmental awareness training from day one to ensure anyone who has the privilege of living or visiting this area is sensitive to koalas and their habitat. We will undertake foliage harvesting and seed collection for replanting programs and we are also prepared to invest in ongoing monitoring and research programs. This work will be planned in consultation with community groups.

Ultimately we are prepared to invest approximately \$25 million in biodiversity and koala protection measures across stages one and two. Stage two will see the pieces of the puzzle come together. A planning agreement as part of stage two offers the strongest opportunity for precinct-wide biodiversity improvements. If given the opportunity to implement our proposal in full, the finished project would increase capacity, both for habitat and feed, for the local koala population. We seek to conserve key areas and rehabilitate additional areas. As you witnessed this morning, the biodiversity of this site has been gradually degraded by agricultural activity since the 1800s. Our proposal will impact 83 hectares of mostly low quality remnant vegetation. But we will rehabilitate and conserve 222 hectares of high-quality koala habitat in perpetuity—a net improvement of 139 hectares.

Areas of high-quality habitat will be avoided and proposed to be secured and managed for koalas in perpetuity as biobank sites, in locally sourced biobank sites where possible. Areas of poorer quality habitat will be restored and the value for koalas enhanced by appropriate bush regeneration to form a continuous wildlife corridor between the Georges and Nepean rivers. As you saw this morning, the existing vegetation along Woodhouse Creek is only 100 metres wide in some parts but we offer to rehabilitate and protect a minimum 200 metre-wide koala-friendly corridor. I respectfully point out that no other organisation or authority is prepared to provide this level of investment or on the ground commitment. We look forward to future engagement with council and the local community toward the detailed planning and design of stage two and precinct-wide improvements.

The CHAIR: I thank you on behalf of the Committee for showing us around Mount Gilead today. It was good for the Committee to hear your point of view and see for ourselves as well.

The Hon. MARK BUTTIGIEG: We have heard a bit this afternoon about this corridor requirement for movement. There is some debate or difference of opinion over how wide that has to be. In the event that it was determined that 400 or 500 metres would be required, is that something that is just not possible or not commercial, or is it something you could see your way through to perhaps dealing with?

Mr WALLACE: I might refer to Mr Humphries in a moment, but I think if it was a uniform 400 to 500 metres that was deemed appropriate, yes, we would have some problem with that.

CORRECTED

The Hon. MARK PEARSON: What would the problem be?

Mr WALLACE: The residual amount of land left to develop. The corridors have a range of, I think, as you saw this morning, a minimum width gets down to 200 metres. We do in fact have large parts of our proposal that are around 450 metres. So it is not that we are equally, we are not proposing a uniform 200 metre-wide corridor. It is where it makes sense, given the existing topography. I do note some of the comments made earlier, but that is what we would be proposing.

The Hon. MARK BUTTIGIEG: Did you want to add to that, Mr Humphries?

Mr HUMPHRIES: Thank you, yes, if I could add to that. I agree with you, there are a lot of different recommendations or suggestions about how wide the wildlife corridors or koala corridors should be, and the general principle is the wider the better, and we support that. But I think we also need to put the site into context and into scale. When we talk about the Campbelltown koala population, sometimes referred to as the Georges River or the Campbelltown-Wollondilly, Office of Environment and Heritage [OEH] refers to it as the regional koala population going from Campbelltown down to Wingecarribee. You zoom out of that scale and look at the work that OEH has been doing, they use the concepts of primary and secondary corridors, and depending on the scale you are looking at, whether you zoom in to an individual property or out to the population as a whole you will have that varying opinion about what is a primary corridor and what is a secondary corridor.

OEH has done quite a bit of work and they have identified primary corridors running north-south, being on the east side of Appin Road and the Nepean River. And they are talking about those corridors being greater than 400 metres wide. Indeed, from Appin Road to the Georges River, on the west side of the Georges River, that corridor is 800 metres to one kilometre wide. Along the Nepean River the existing vegetation in some places is as narrow as 100 metres and in other places it is 400 or 500 metres wide. OEH has identified the corridors running east-west through the Mount Gilead property as secondary corridors. In places the vegetation on those corridors is only 50 metres to 100 metres wide. What we are proposing is far in excess of what the existing vegetation is and actually enhancing that vegetation. In places, some of those corridors for a short distance are only 200 metres wide, but there are much larger habitat nodes, particularly around the northern sections of Woodhouse Creek, which is where you get the large habitat areas which can support home ranges of koalas.

The Hon. MARK BUTTIGIEG: The koala plan of management that was submitted by Campbelltown City Council, are you aware of that? Have you seen it?

Mr HUMPHRIES: The revised draft September 2018 document?

The Hon. MARK BUTTIGIEG: Yes.

Mr HUMPHRIES: Yes, I am familiar with that document.

The Hon. MARK BUTTIGIEG: Did that influence any of your planning and thinking with regards to the master plan?

Mr HUMPHRIES: Yes, it has influenced, and we use a lot of the principles from that document. But where we are up to at the moment with stage two is there is no rezoning, there are no development applications. We have submitted an application for biodiversity certification, which is not a development application in its own right. It is a preliminary master planning stage, and we have identified the koala corridors as part of that process. As you go through biocertification under the New South Wales legislation you are not required to consider SEPP 44. That does not mean you ignore koalas. Koalas have been up-front in the whole planning process in terms of identifying the higher quality habitat and protecting that from the start.

The Hon. MARK BUTTIGIEG: I asked the same question of Dr Stephen Phillips earlier: How far apart do you think your master plan and the koala management plan are? Is it possible to reconcile the differences?

Mr HUMPHRIES: It can certainly be a work in progress we can keep looking at. But I cannot quite remember the exact words that Dr Phillips used, but when he quickly looked at the plan presented to him 25 minutes or so ago he suggested that they were somewhat similar to this strategic habitat linkages. What he is referring to there is the diagram on page 29 of the revised Campbelltown koala plan, and you can see in the yellow crosshatching on that map the identified strategic habitat linkages. Those linkages are basically the Menangle Creek running across the northern section of Gilead and the Woodhouse Creek going from Beulah biobank site up to the Nepean River. We are talking about protecting the same corridors. What is in dispute is how wide those corridors should be.

The Hon. MARK BUTTIGIEG: Yes. Did you pick up on his comment about the underpass and the size that would need to be of value? If you did, what is your response to that?

CORRECTED

Mr HUMPHRIES: I do not disagree with Dr Phillips. He talked about the difficulties topographically with Noorumba, and he talked about where you can have underpasses, they need to be meaningful and bigger than the 1.2 metre culverts that they generally are. I am not an engineer, but I believe Lendlease has been looking into the options and possibility of putting an underpass in at Beulah, which actually includes a three-metre wide culvert to Dr Phillips' specifications. The decision as to whether that can be implemented is one for RMS as it is a regional road.

Mr WALLACE: There were a few things that came out from Dr Phillips. Firstly, I think, with respect, the Committee might have not quite got the full picture in terms of the sequencing of the development process. Much of what we have been talking about and where we started our tour today was stage one. Stage one in terms of its space is a long way advanced; the bulk earthworks are approved and so on. So all the corridors and things, that has all been put to bed. Stage two does not.

The Hon. SHAYNE MALLARD: It is not even rezoned, is it?

Mr WALLACE: No. There were some comments made out on our site this morning that suggested perhaps we were doing some of this work retrospectively. That is not the case. It is simply that we are now up to that part of the process where we could undertake these works, and that is what we are doing.

The Hon. CATHERINE CUSACK: Can I just clarify that. The comment I was making was that you have identified the corridor and now you are doing the koala studies. My question related to why not do the koala studies and then identify the corridor. That was what I meant by retrospective.

Mr WALLACE: Thanks for clarifying. Sorry, I took that—

The Hon. SHAYNE MALLARD: It is all on paper essentially at the moment. It is just in the preliminary planning stages at the moment?

Mr WALLACE: Stage two, yes.

The Hon. SHAYNE MALLARD: It has not gone to government yet?

Mr WALLACE: We continue to do the koala work, if you like. In fact, we have set aside money—which we are happy to commit to on public record—for exactly the types of things that are being discussed this morning. We are happy to fund a number of koalas to have tracking devices installed and learn properly the data from the koala movements. I think we are swimming downstream here to some extent. We have a vested interest in ensuring that this remains an attractive place for everybody. It is what our customers want. I think that part, there is quite a bit of alignment.

I perhaps did not appreciate the significance of the Noorumba population to the north of our site in quite the same way. I am happy to take that on notice and give consideration to what we might be able to do to improve there. But certainly from Appin Road and the roadworks and the contention around the fence and the negative consequences of that, I reaffirm my commitment that we will fund a couple of overpasses during that construction period and leave there with RMS concurrence that ability for the fauna to traverse Appin Road.

When we get to the south and into Beulah, that underpass, and we are suggesting an underpass because you have to work with the topography. I am very familiar with northern New South Wales—I have been there recently to have a look at the overpasses, which are quite impressive—but nonetheless we need to work with the topography that is there. But we do have capacity to create something quite significant with the height of about four metres and up to about 40 metres to 50 metres wide. We are not talking about some small culvert that funnels the fauna in particular.

The CHAIR: Can I ask about the draft koala plan of management that we have heard about from Dr Steve Phillips, who largely was responsible for pulling it together with others? Mr Humphries, you said that you know about that document—yes? Just a yes or no. You nod. In relation to Lendlease's knowledge of this document and how much you have assessed it or taken it into consideration, what is your knowledge of that draft koala plan of management?

Mr WALLACE: I will ask Ms Clarke to answer that.

Ms CLARKE: We are aware of the document and, together with our consultants such as Eco Logical, we have reviewed part of the contents of that document. We do not inform that document necessarily. It is drafted under the guidance of councillors pro bono. However, it has been considered in all the studies we do. Our approach to master planning is evidence based, so in addition to all the documents prepared by the experts and all of the site investigations that are completed over time, those all inform our process to master planning.

CORRECTED

The CHAIR: Essentially, it is your understanding that council has submitted it to be endorsed by Planning. They have said, "Here's our koala plan of management. We would like this approved to Planning."

The Hon. SHAYNE MALLARD: Two years ago.

The CHAIR: Two years ago, yes. Yet, Mr Wallace, you have just mentioned that you were not aware, for example, of the significance of the koala population in the northern part of the development. That seems unusual if you said that you have assessed that draft koala plan of management. I am assuming it very much indicated that parts of the development, parts of the area that you are developing, are significant. I am assuming that you are aware of the conflicts between that draft koala plan of management and what your development intends to do?

Mr WALLACE: To explain that a little further, it is not unusual for me personally not to be across that level of detail. My role is national. It is not just communities. It is all things residential in Lendlease so I travel a lot. In our governance framework, I have means by which to check in on about a six weekly basis on the progress of meetings. To be specifically alert to a particular document is not unusual.

The CHAIR: Okay. I have a question around the Environment Protection and Biodiversity Conservation [EPBC] approval that was given in December 2018. Is that stage one?

Ms CLARKE: Yes it is.

The CHAIR: As part of that, the condition was to prepare the koala management plan. Where is that koala management plan up to?

Ms CLARKE: Just to clarify that, the koala management plan is actually a plan in relation to works during construction. It is a construction environmental management plan. I am looking at Mr Humphries to confirm that I have the term correct. It is CEMP, so it is different to a koala management plan as defined by State Environmental Planning Policy [SEPP] 44. It is being prepared at the moment. We have not commenced any construction, as you are aware.

The Hon. MARK BUTTIGIEG: I am sorry, you said you do not have to take notice of SEPP 44, did you not?

The CHAIR: I am still going with my questions, sorry.

The Hon. MARK BUTTIGIEG: Sorry.

The CHAIR: I am still on this bit. It directly ties in with what you were just talking about. I understand that the conditions of that approval, though, may have been altered. Recently a couple of the conditions of the approval under the EPBC Act had been altered slightly. Is that correct?

Ms CLARKE: I am not aware of the detail. I will ask Mr Humphries if he is. Are you aware of any details of any alteration?

Mr HUMPHRIES: I am not. I believe Madam Chair may be referring to some of the other submissions to this Committee which talked about some of the draft conditions being changed from when it was in draft form to when it appeared as its final form in terms of the dollar contribution for koalas over five years.

The CHAIR: There was. Yes, that is right. There is, and I just wondered why that was the case. I understand that one of the requirements was that Lendlease was requested as part of that condition to contribute at least \$500,000 over five years towards the plan. That was in one of the original statement of reasons for the approval. Secondly, it was that the koala management plan needed to be approved by the Federal koala recovery team. There are two matters that we now have been informed have been amended. Did Lendlease have an issue with contributing \$500,000 over five years? For Committee members, why was that changed to now \$250,000?

Ms CLARKE: Just to clarify, we actually contribute an average of \$241,660 annually to satisfy that very condition under the EPBC approvals. There is no amendment to that approval. That is what we are required to contribute. But to clarify the comment around SEPP 44, SEPP 44 defines that the koala management plan to have particular outcomes or requirements. The plan that we are referring to under the EPBC conditional approval is a construction—forgive me, I forget the acronym—but it is the CEMP, which is the construction environmental management plan. It is specifically to address the impact of koalas during construction, so it is different to the contents requirement of SEPP 44. It is not that we are not complying with SEPP 44, it is that this plan has specific requirements under our EPBC approval.

CORRECTED

The CHAIR: I do wonder because I have the varied condition No. 7. Has it come from the department in terms of reducing that quantity of funding required from \$100,000 to \$50,000 per year over five years? It is specifically in the condition of approval. It is a varied condition and it has reduced it from \$100,000 to \$50,000. This is important in terms of your standing, with respect, within the community and organisations who are wanting to be reassured that you want to try to conserve the koala and the koala management plan.

Mr WALLACE: If that would satisfy you, I will commit to the extra \$50,000 a year now. It is not a big issue.

The Hon. CATHERINE CUSACK: But I do not understand what you mean. Is this for stage one, is it?

The CHAIR: The question is: Did Lendlease request that that money be reduced from \$100,000 to \$50,000? Why was that condition varied?

Mr HUMPHRIES: I do not recall why the condition was varied but the draft plan we submitted to the Commonwealth Government for approval actually identifies expenditure on koalas within what they call the action period, which is the construction, the project site area, which is the onsite biobank sites and the construction site, well in excess of a million dollars. Whether it is determined \$50,000 over five years or \$500,000 over five years, the amount has been more than doubled.

The CHAIR: Would you commit to trying to find out for the Committee on notice where that request came from—whether it was the department or Lendlease—and why it was reduced from \$100,000, specifically in the conditions/

Mr WALLACE: Sure.

The CHAIR: Secondly, the other variation, which I think is also important, is the koala management plan needed to be reviewed by the koala recovery team. Now that condition is no longer there, which means the independent oversight is no longer there. The koala management plan now is approved only by the Minister. I have had representations from organisations who are very concerned that there is no longer independent oversight of that. Would you commit to, or can we get some kind of independent review, of your koala management plan?

Mr WALLACE: Yes. I am happy to commit to understand how that came to be.

Mr HUMPHRIES: If I could just add it that the original approval did require that plan to be endorsed by the national recovery team. When we submitted the draft plan for approval to the Commonwealth Government, we asked them how to contact the national recovery team. There is no national recovery team.

The CHAIR: I know. Yes, it is good to get that on the record. Thank you, Mr Humphries.

The Hon. CATHERINE CUSACK: Mr Wallace, during your opening statement you said that Lendlease is preserving 220 hectares of high quality habitat. I understand that the historical precinct is also going to be protected. My question is: Does that include the historic precinct? If so, how many hectares of the historic precinct?

Ms CLARKE: Sure. We will end up with restored native vegetation of 222 hectares. Of that, 30 hectares are located within the historic precinct, as you refer to it. We also refer to that precinct as the Homestead precinct.

The Hon. CATHERINE CUSACK: Does that include the canal?

Ms CLARKE: No. It does not include the canal.

The Hon. CATHERINE CUSACK: Does that include the easements in relation to the power lines or the gas?

Ms CLARKE: No.

The Hon. CATHERINE CUSACK: So it is a net 220—

Ms CLARKE: Two hundred and twenty-two hectares.

The Hon. CATHERINE CUSACK: And are those parts of the property in addition to the 222 hectares? Am I understanding this correctly? They are not part of it, are they?

Ms CLARKE: They are in addition to the 222 hectares. Rob can provide you with some more detail.

CORRECTED

Mr HUMPHRIES: For stages one and two combined there are eight proposed biobank sites. In total they cover 222 hectares onsite. Then there are an additional 140 hectares offsite. Those areas do not include dams, easements or walking tracks. It is just the vegetation within those areas and the vegetation that will be restored. As part of those 222 hectares 44.6 hectares are currently cleared pastures which will be revegetated to be koala habitat.

The Hon. CATHERINE CUSACK: Could you split that between the two stages for us?

Mr HUMPHRIES: Break those numbers up between the two stages?

The Hon. CATHERINE CUSACK: Do the 22 hectares relate to stage one or stage two?

Ms CLARKE: There are 22 hectares of that included in stage one and 200 hectares included in stage two.

The Hon. CATHERINE CUSACK: You referred to 140 hectares offsite and their biodiversity offsets. Can you explain that and separate those hectares into the offsets for stage one and two?

Mr HUMPHRIES: The approval for stage one at the State Government level was done through a biodiversity certification assessment process. When you do that you have to talk about hectares and credits. There are credits to the communities and there are credits to each of the individual threatened species. As far as koalas are concerned, the 10.79 hectares of impacted koala habitat required 298 koala credits. The two onsite biobank sites, which include the site adjacent to Noorumba Reserve and the Macarthur-Onslow biobank site, generated 133 credits.

There was a remaining 151 credits to meet the total of 298. It was originally proposed that to meet that 151 credit deficit they would use credits from Noorumba Reserve, which is a council reserve that was registered as a biobank site completely independently of Lendlease's proposal. That is what is in the State approval. As mentioned earlier today, the Commonwealth Government did not accept that, so Lendlease purchased another 150 credits from a biobank site in west Appin. Rather than retiring 298 credits it has retired 298 credits along with an additional 150. It is retiring the credits from the two biobank sites onsite, plus Noorumba Reserve plus west Appin.

The CHAIR: We are out of time. Mr Pearson has one more question.

The Hon. MARK PEARSON: I have a question on that point. Is it correct that the biobank is land at Fernhill, which is 40 kilometres away from the local koala population? That replaces offsets being planted at nearby available land east of Appin Road.

Mr HUMPHRIES: I am sorry but that it totally incorrect. We are not using the Fernhill biobank site to meet koala offsets. Fernhill is being used to meet some of the Commonwealth requirements for shale/sandstone transition forest. All of the koala offsets are either on site, immediately adjacent to the site, that is, Noorumba Reserve, or within the Campbelltown Wollondilly koala population area at west Appin.

Mr WALLACE: There were cheaper options available and we did take it to heart that they should be sourced as locally as possible.

The CHAIR: Thank you. That was a very quick session. I am afraid we need to finish now. Thank you for showing us around the site. The Committee has resolved that if you have taken any questions on notice they should be returned to the Committee within 21 days. The secretariat will be in touch with regard to those questions. Would you be willing to accept further questions from the Committee if we have any?

Mr WALLACE: Sure.

The CHAIR: Thank you.

(The witnesses withdrew.)

CORRECTED

ALEX STENGL, Environmental Services Manager, Wollondilly Shire Council, affirmed and examined

IBRAHIM MUHARREM, Sustainability Coordinator, Wollondilly Shire Council, affirmed and examined

FLETCHER RAYNER, Executive Manager, Urban Release and Engagement, Campbelltown City Council, affirmed and examined

The CHAIR: Thank you very much for coming. Would any of you like to make a short opening statement?

Ms STENGL: I will start. Thank you for inviting me to speak today. My name is Alex Stengl and I am the manager of environmental outcomes. Today my address will focus on koalas in the Wollondilly local government area [LGA] and the koala population that resides in Campbelltown—which is north of our LGA—through Appin and Wilton to the biobank population to the south. The council has concerns that there has been no integrated medium- or long-term ecologically sound planned measures to protect koalas in Wollondilly. Ad hoc and fragmented residential development presents major direct and indirect impacts on koala populations. The State-led rezonings in Wilton have maximised the development potential of land at the expense of appropriate conservation offsets and long-term financial mechanisms for conservation outcomes. Of note, there is no solid structure plan for the Wilton area. This is paramount to acknowledging and funding ongoing protection mechanisms in the area.

Legislation and strategies are not finalised, including the Cumberland Plain Conservation Plan. In Wollondilly we are still in transitional arrangements under the Biodiversity Conservation Act. There has been no government commitment that evidence-based planning will be used to ensure the protection of identified corridors and associated culverts and crossings to ensure the long-term viability of the population. Another element of concern for us is that the special infrastructure contribution is significantly undervalued for the works needed to fund the developments in our area. That obviously includes the conservation fund for koala corridors. The key point—and I will cut straight to the chase—is that the review of step 44 needs to be finalised and placed on public exhibition as soon as possible. There needs to be a development of an original integrated koala plan of management that informs planning and conservation for the greater Macarthur region, including for our koalas. Development of structure plans for all of the land in Wilton and associated growth areas along the koala corridors needs to occur.

Consistent and fair planning principles need to be applied to the whole of the precinct and the values of the conservation land. There needs to be greater support for our development control plan and meaningful controls, including koala habitat. They should not include just the sandstone vegetation; they need to include the transitional vegetation. We wholly support the creation of a national park, as well as linkages to both the Georges River and the Nepean River and their contributory streams. There needs to be integration and support of evidence-led outcomes for the structure plan for the conservation measures, including—as I said before—habitat first. We need to secure the corridors and then permit development. The incorporation of the Chief Scientist & Engineer report and all of the recommendations of that report should be considered. There needs to be a commitment to integrate and support all of these aligned actions and outcomes for all levels of government. There needs to be funding for those actions, including road crossing and culverts; not just fencing. We need to have an aligned approach. The council wants to see quality, transparent reporting and data that informs those decisions.

We also want to see long-term conservation that is understood for all of the land and conservation measures for all of the precinct. Like I said before, we need to mitigate, protect and offset and then biobank. Lastly, there needs to be further investigation into planning mechanisms such as conservation agreements over residential land. I will use the example of Bingara Gorge and Lendlease. It currently has an environmentally significant land area that sits over an R2 residential zoning. Perhaps these principles could be applied to the urban development zone that has been created through the State-led developments and rezones. I reiterate that a development control plan that enables the protection of conservation areas enhances the corridors, a recommendation of which will sustain the long-term viability of the population for both movement and food. I guess what I am trying to say here is that not considering those elements is like me providing a house for you with only one bedroom and no kitchen or bathroom and then asking you to live comfortably and survive. Thank you.

Mr MUHARREM: Wollondilly Shire Council is a peri-urban local government area [LGA] which incorporates substantial portions of high-value biodiversity, including having a significant and growing population of koalas. The Wollondilly shire residents have shown strong advocacy regarding koala management in the past, with a petition led by council having over 13,000 signatures, which was lodged with the New South Wales

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Government. These community values should have been reflected in State Government policy and actions. However, this was not the case, as seen by a lack of action and continued advocacy by council and the community.

The council has repeatedly written to the State Government identifying the significance of the local koala population and the need to prioritise the formation of the regional plan for the protection and conservation of the region's koalas and their habitat. This includes the effective protection and enhancement of corridors linking the Georges, Cataract, Nepean and Bargo rivers and ensuring that the width of these corridors is appropriate to sustain a growing population of koalas, which includes clay soils that are the appropriate areas for koala food trees. Council has been recommending a blanket corridor protection of 450 metres from the top of bank on both sides of third order streams and above, 250 metres from the top of bank on both sides of second order streams and 150 metres from the top of bank of both sides of first order streams.

The State Government should be the leader in applying biodiversity conservation principles. However, it is evident that its actions have led to a mismanagement of the Wilton growth areas, allowing rezonings to proceed without finalising key studies and plans. Biodiversity offset mechanisms equate to a net loss of habitat and do not take into account habitat and corridors within the landscape context. The State Government's inappropriate actions are undermining the ability to protect and enhance Wollondilly's and the region's koala population as well as undermining the ability to protect and enhance endangering ecological communities and other threatened, native and vulnerable biodiversity. Australia's unique biodiversity needs to be protected in perpetuity. Unfortunately this is not occurring. There is an immediate need for greater political will, State Government accountability and stronger legislation. It is imperative that housing pressure is relieved; however, the community and the environment should not be burdened with poorly planned development.

Mr RAYNER: Firstly, on behalf of council I thank the Committee for the invitation to attend today. As you have heard today, our community is passionate about the protection of koalas and their habitat. We have local wildlife carers and veterinarians that are responsible for saving the lives of injured koalas through their tireless rehabilitation work and we have a number of committed community groups that exist as strong champions for the environment. Our commitment to the local koala population is best demonstrated in a number of council resolutions related to koalas and their habitat, as outlined in detail in our submission.

To summarise, we have been working on a comprehensive koala plan of management for the last two decades. The recent version that was authored by Dr Steve Phillips was submitted to the State Government in October last year for approval. In the last year, more than 40 development related koala habitat assessments including 12 individual koala plans of management have had to be completed due to the absence of this approved comprehensive plan for our region. The absence of an approved plan has resulted in significant increases in the cost of minor development and uncertainty for residents lodging development applications, and increased pressure on council staff resources to reasonably manage outcomes on an individual basis.

The council has commissioned a number of reports from koala expert Dr Steve Phillips to undertake studies in this space in order for council to obtain the best available science and to deliver reports based on best practice management to inform good decision-making processes related to the development of precincts associated with our new release areas. We are optimistic that the supply of these reports will inform the final decisions of our State Government counterparts. The council is also active in preparing comments on development submissions. Some recent examples include our submission on the Greater Macarthur 2040 strategy and the RMS Appin Road review of environmental factors [REF], where we made it very clear that underpasses and overpasses should accompany fauna exclusion fencing as part of any plans to upgrade Appin Road.

Council also held in March of this year the Greater Macarthur Koala Partnership Forum, which was attended by a range of relevant government and non-government stakeholders. A number of industry and community koala experts were engaged to present on key issues and threats affecting the long-term viability of koalas in our region. Outside of the planning realm, council's natural assets team is also responsible for the implementation of the objectives and management actions outlined in our comprehensive plan. They run a number of koala habitat restoration projects and community educational programs throughout our LGA. Some of these projects include revegetation projects, koala food tree planting days and the purchase of variable message signboards which are rotated around the LGA to target key vehicle strike hotspots to alert drivers to that danger. Finally, we are in the preliminary stages of designing a locally significant long-term koala monitoring program for our local koala population. I trust this provides the Committee with a brief overview of our work to date. We thank you for the opportunity to give evidence at this important inquiry.

The CHAIR: Thank you very much, Mr Rayner, and everyone else for all of your opening statements. I want to clarify something in relation to the draft koala plan of management for Campbelltown City Council. You

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said in your statement it was October last year although I think we have been talking about two years. Was it submitted in 2018 or 2017?

Mr RAYNER: I believe it was submitted over two years ago.

The CHAIR: Two years ago.

Mr RAYNER: In response to feedback from the department of planning we went through an update process to that plan, re-exhibited that plan and re-adopted it for resubmission to the department last year.

The CHAIR: Okay. So it was originally submitted in 2017 and the department of planning came back to you. What was the general feedback that they wanted you to take into consideration and resubmit?

Mr RAYNER: My understanding was that the types of koala food trees that we had included in our original assessment did not match what was considered to be consistent with the State environmental planning policy [SEPP] at the time. I think the SEPP had a fairly minimal range of food trees that could be considered. We had included additional, which I think was part of a legal opinion provided to the department that caused us to need to revisit our plan.

The CHAIR: Was it done by the same people in terms of revising the draft plan and submitted it? Were Dr Steve Phillips and others who did the original draft koala plan of management—

Mr RAYNER: I could not comment on that. I do not think it was. Steve Phillips was certainly involved in the most recent iteration but I could take that first part on notice.

The CHAIR: Could you help the Committee with potentially what the reasons are for why the council still has not received the final koala plan of management?

Mr RAYNER: That advice has never formally been provided to us. We can only assume that the delay might be associated with broader strategic projects around the Macarthur 2040 plan. Perhaps the Cumberland Plain conservation plan might be delaying any decision on that. But apart from that we are not aware of any particular reason.

The CHAIR: I have a question in relation to Wollondilly Shire Council. Mr Muharrem, in your opening statement I think you mentioned writing to the State Government—I cannot recall what it related to—and that it had not responded to your concerns. Was that you, Ms Stengl?

Ms STENGL: It might have been me or it might have been—

Mr MUHARREM: So I did put that in my statement, yes. We have had multiple letters provided to the State Government in relation to koala management. Would you like to see examples of that? Would you like us to provide those?

The CHAIR: Exactly. Thank you very much. That is what I was going to ask you; if the Committee could have those letters and any responses from State Government.

Mr MUHARREM: We will take that on notice and provide you with it.

The Hon. SHAYNE MALLARD: Good afternoon to you all. When we were inspecting the site—I am not sure which council area Mount Gilead falls into. Is it Campbelltown?

The CHAIR: Campbelltown.

The Hon. SHAYNE MALLARD: The proposed corridor is stage two, so it is hypothetical at the moment, but I think in stage one they did say it was the case that it transferred to the council after it was developed. How does the council feel about that and the council managing that corridor?

Mr RAYNER: Obviously a decision is yet to be made around how those corridors could be managed. Ideally public management is the preferred outcome and where that can coexist with a recreation outcome for activities like walking, cycling et cetera, that would be an ideal solution. I think the dedication mechanism would, ideally, be through voluntary planning agreements as opposed to development contribution plans. So it is certainly open.

The Hon. SHAYNE MALLARD: What I am probing here is whether the council has the skills and resources to take responsibility for a key koala habitat corridor—whether it winds up being 120 metres or 400 metres or varies between the two—connecting two colonies that are now communicating with each other; that the council is prepared and has the resources and the capacity to take on that type of sensitive stewardship?

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Mr RAYNER: We currently have teams within council that undertake asset management in our existing corridors. With the support of the elected council to expand our remit to take on more, then perhaps that is certainly something we would be able to do.

The Hon. SHAYNE MALLARD: You look after Smiths Creek corridor?

Mr RAYNER: Yes, that is correct.

The Hon. SHAYNE MALLARD: Do you want to tell us about that? I understand that it is fairly successful.

Mr RAYNER: I do not have detailed notes.

The Hon. SHAYNE MALLARD: You might take that on notice—

Mr RAYNER: I could take that on notice in terms of what we do.

The Hon. SHAYNE MALLARD: And outline the history of that and koala activity and what it connects because it is an interesting case study.

Mr RAYNER: I would be happy to provide that.

The CHAIR: Mr Rayner, I note the comment in your submission in relation to the individual koala plans of management that have had to be assessed; more than 40 development-related koala habitat assessments, including 12 individual koala plans of management. During the assessment process for those individual koala plans of management, do they go just to council or do they go to the Department of Planning as well?

Mr RAYNER: They go to the department for concurrence, and that is a requirement prior to issuing development consent.

The CHAIR: How quickly does the department deal with those individual koala plans of management in comparison to the extensive delay of the overall council koala plan of management?

Mr RAYNER: It varies on a case-by-case basis but I think, anecdotally, without the figures at hand, we are looking at, perhaps, four to six weeks turnaround on individual koala plans of management for small-scale development. It could be longer in certain cases. I am happy to take that on notice but they are normally dealt with reasonably efficiently.

The CHAIR: Is there any requirement to assess those individual koala plans of management against other, say, adjacent developments or other koala plans of management? What I am getting at is, of course, everyone is expressing frustration at the fact that the comprehensive koala plan of management is not back from or endorsed or approved by Planning. Yet, you have all of these individual koala plans of management that in no way refer to each other, do they? They are just in relation to a particular block and you have to hope that the koalas are looked after in each individual block?

Mr RAYNER: That is correct. For the most part they relate to reasonably small-scale development where residents are trying to either construct a new house or build a pool or build a shed. So they are dealt with on a case-by-case basis. As assessment officers, we do seek to benchmark them against our own plan for quality control before referring them to the department.

The CHAIR: Benchmark against your own plan? Is that the draft koala plan of management?

Mr RAYNER: That is correct.

The CHAIR: But Lendlease was not benchmarked. Mount Gilead was not benchmarked against the draft koala plan of management.

Mr RAYNER: My understanding of that process is that because they have gone through a biodiversity certification process, that has set aside that requirement.

The CHAIR: Yes, but they went through that biodiversity certification process after the approval process, right? In terms of you assessing that, could you explain the time line?

Mr RAYNER: The timeline commenced before I started working at Campbelltown.

The CHAIR: I mean the council; not you individually.

Mr RAYNER: I think the time line for that plan as a body of work probably commenced sometime around 2016, and then eventually was exhibited in 2018 and then adopted by council in 2018 before being referred

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to the Office of Environment and Heritage at the time. It was eventually endorsed, subject to a biodiversity agreement being put in place, which took a further six months. It was only finally adopted, executed and notified on the department's website around June this year.

The CHAIR: In terms of Mount Gilead, you did endorse or approve the plan?

Mr RAYNER: That is correct.

The CHAIR: When you talked about biodiversity certification, that was after you approved the plan?

Mr RAYNER: Rezoning of the area was made in late 2017. As part of that process, the resolution to adopt the rezoning for the Gilead stage one area was to progress the biodiversity certification, which was completed this year prior to any development applications being determined.

The CHAIR: Members, please let me know if you want to jump in. You are expressing frustration that the Department of Planning has not approved the draft koala plan of management, but the council is still approving plans that seem to go against the intent of that koala plan of management. That is correct, is it not?

Mr RAYNER: I would not express it that way. I think the plans that we are dealing with are located across the LGA, not necessarily within the Mount Gilead area. They are with mum-and-dad applicants who are just simply trying to do a simple application on their family home. So in those cases, those applications are fairly minor and, I guess, needing to address the requirements of the SEPP as a fundamental procedural process. I do not believe that they would be inconsistent with council's adopted plan.

The CHAIR: No, in relation to Gilead, though, in stage one of the draft koala plan of management. It is not a mum-and-dad developer.

The Hon. MARK BUTTIGIEG: Are you saying stage one does not contradict the draft koala plan of management?

Mr RAYNER: Stage one sits in between core corridors. Dr Phillips expressed the three east-west corridors that we talked about. The stage one development sits largely in between those and that has been the basis of that plan progressing with council's support.

The CHAIR: So in relation to the Appin Road issue, which we have heard a lot about, what is the council's position in terms of what should happen with that road to ensure as few koalas as possible are killed on that road?

Mr RAYNER: Firstly, the council supports the upgrade of Appin Road. Our submission was in support of the upgrade. Key contentions were the width of the road and the need for four or six lanes. We would rather see the road minimised in width to support a more regional scale transport solution. In relation to koala movement, the council strongly advocates koala connectivity via either underpasses or overpasses. We have expressed that in various forms through council resolutions and council-adopted studies.

We presented to councillors a koala connectivity study in 2017, setting out the desired koala corridors for south Campbelltown. In 2018, through Dr Phillips, we did a connectivity study, looking at the habitat needs of koalas—that is when we arrived at the ideal corridor width of around 420 metres or thereabouts. We also identified the preferred location of the crossing points as part of that study—being Noorumba, Beulah and a creek further to the south as well. We were disappointed to learn the outcome of the Review of Environmental Factors [REF] to not provide that connection and we have continued to advocate on that point.

The CHAIR: Which connection exactly?

Mr RAYNER: The Noorumba Reserve crossing.

The Hon. MARK BUTTIGIEG: Just following up my colleague Ms Faehrmann's questions regarding the draft plan of management? So you got feedback from the department regarding the quality of the feed trees. It was amended. When was that final version—that amended version—submitted? About a year ago, was it not?

Mr RAYNER: Towards the end of last year. I would have to take the exact date on notice. It was formally submitted between November and December last year.

The Hon. MARK BUTTIGIEG: So almost 12 months ago. Has council made further representations asking what is going on?

Mr RAYNER: We have done that informally through our regular channels with the department, through the regional team.

CORRECTED

The Hon. MARK BUTTIGIEG: Informally as in what? Telephone conversations or emails?

Mr RAYNER: Emails, telephone conversations and quarterly-style meetings that we have with the department.

The Hon. MARK BUTTIGIEG: And the response?

Mr RAYNER: The regional team is still seeking feedback from other departments within Government.

The Hon. MARK BUTTIGIEG: I suppose this is a matter of opinion but is it possible that the reason the decision is being delayed—and I take the point of previous questioning regarding other smaller-scale plans which seem to be approved quickly—is that the department is delaying this until Lendlease are ready?

Mr RAYNER: I cannot answer that question. I do not know.

The Hon. MARK BUTTIGIEG: Can you walk us through your understanding of the process of how this is supposed to work? From the time you submit the koala plan of management—assuming it is ticked off—what happens then from the council's perspective?

Mr RAYNER: Our understanding is that a recommendation is made to the delegated officer within the department, recommending the making of the plan. From that point the plan is then effective. From that point on, any development application submitted with council could rely on the recommendations of that plan to mitigate impact, through on-site works or offsets where any tree removal is considered as part of development. That is our understanding of how it would work.

The Hon. MARK BUTTIGIEG: Is it true that the Minister can choose to override or ignore that plan of management?

Mr RAYNER: I do not know.

The Hon. MARK BUTTIGIEG: How does the State Environmental Planning Policy [SEPP] 44 come into that? That can be ignored to, can it not?

Mr RAYNER: I do not think so. All applications need to consider SEPP 44 and that is—

The Hon. MARK BUTTIGIEG: Consider?

Mr RAYNER: They need to demonstrate compliance with it. That is what results in the individual koala plans of management being submitted with development applications within our local government area.

The Hon. MARK BUTTIGIEG: Do other councils have similar experiences with this process?

Ms STENGL: Yes. This is the current rezoning zone for the planning proposals that we are talking about—failure to provide a koala plan of management. We have not developed one for our council but we are in the process of doing so now for that area. The proponents of the original South East Wilton development—and this is the court case for council—failed to acknowledge koalas on site. Through the Save our Species program—when we had collared koalas—we tracked breeding females through that site with Global Positioning System [GPS] tracking.

The Hon. MARK BUTTIGIEG: Sorry, who refused to acknowledge?

Ms STENGL: The developer at the South East Wilton precinct. It was one of the greatest concerns for council. Not only was this already a State-identified priority corridor—and we thought that would already have been preserved—but we then had a program identifying breeding females through that corridor.

The CHAIR: When was that?

Ms STENGL: It was 2017. We can provide that data to you?

The CHAIR: Yes please.

The Hon. MARK BUTTIGIEG: Mr Muharrem, you are from Wollondilly Shire Council, is that right?

Mr MUHARREM: That is correct.

The Hon. MARK BUTTIGIEG: What is your experience of this process?

Mr MUHARREM: I have only been with council for one year but in terms of the systems and processes, I do not think they have been appropriate. I think the studies and the planning should be in place prior to any rezoning being undertaken, to properly inform whether rezoning should actually take place.

CORRECTED

The Hon. MARK BUTTIGIEG: Mr Rayner, just one more. Has Lendlease tried to engage council directly on this—on Mount Gilead?

Mr RAYNER: In relation to what process?

The Hon. MARK BUTTIGIEG: In relation to their master plan for stage two?

Mr RAYNER: Yes, they have. We recently, through a process, put up a biodiversity certification proposal to our council in July. The council resolved to conditionally support that proposal for submission to the department of planning to meet the legislative requirements of the Biodiversity Conservation (Savings and Transitional) Regulations Act—or the threatened species provisions. The conditions of that support were on the basis that the plan only be exhibited when a rezoning application has achieved gateway status and could be exhibited; that the plan be further reviewed in relation to council's adopted corridor strategy and the recommended widths and that any impacts on red flag species be further minimised. So there were quite a few conditions on that. But it was done to meet the particular timeframe for that plan to be made under the applicable provisions.

The CHAIR: Is the adopted corridor strategy you mentioned separate from the draft koala plan of management?

Mr RAYNER: No. They are broadly consistent. The koala plan of management generally looked at core koala habitat. The connectivity—or the corridor—study identified the three routes considered necessary to support good connectivity between the Nepean and the Georges rivers.

The CHAIR: So a 450-metre wide corridor, you are saying council advocated for that as well?

Mr RAYNER: That was a recommendation that came out of Dr Steven Phillips' report, which was recommended to our councillors and accepted.

The CHAIR: In relation to the development application by Lendlease, though, you are giving evidence today that council supported the 450 metre corridor. In what form has council advocated or submitted that council wants Gilead, the Lendlease developments, to have that 450 metre corridor? What is council doing to try and advocate and fight for that? What is the process that it has gone through?

Mr RAYNER: We went through a process of advising all the landowners of that study and took feedback on that.

The CHAIR: So that is a voluntary thing?

Mr RAYNER: A voluntary thing. We have written to all Ministers and agencies around the outcomes of that work and sought to ensure that that is a consistent approach to development in South Campbelltown. We have also expressed those outcomes in our submissions on the Campbelltown 2040 strategy and sought to have its recommendations embodied within any regional growth corridor plan for South Campbelltown as well. That is principally how we have sought to I guess promote that at this stage.

The Hon. MARK BUTTIGIEG: But until the draft plan is approved by the department those corridor widths have no statutory standing do they, really?

Mr RAYNER: That is correct. There does not appear to be a common position in Government around what those widths should be or how they could be implemented. I guess that is the challenge facing council in terms of dealing with any planning applications that are made to us.

The CHAIR: I am trying to get a handle of how concrete the request is from council—or the pushback, I suppose—and what form that looks like. You are saying the councillors have endorsed this corridor strategy of 450 metres. We have heard clearly today that Lendlease does not have anywhere near that—half that, if that—in terms of corridors. We heard from Dr Steve Phillips that that is not going to be great for this koala population that is recovering. Correct me if I am wrong, but it does not sound like Campbelltown council has really put its foot down in relation to it needing to be 450 metres. Or are you saying that you do not have the power at all to do that?

Mr RAYNER: Look, I think that it is a shared power in terms of seeking to achieve outcomes that accord with the best scientific evidence and accord with community expectation. Those requirements have been embodied in council's position so far in relation to any plan progressing. I cannot foreshadow how that will progress into the future. I think that there is input required from different groups on that—Lendlease, the State Government, the environment groups that inform policy, the role of Roads and Maritime Services in terms of supporting outcomes that provide connectivity over or under Appin Road. It is about aligning all of these concerns into a single strategy, such that the best outcome can be achieved.

CORRECTED

The Hon. MARK PEARSON: But Campbelltown council could make it a minimum requirement for it to be 450 metres, couldn't it?

Mr RAYNER: Certainly, it could recommend to that to happen. That is correct.

The Hon. MARK PEARSON: But it could make it a minimum requirement of the development application. In order to approve the application, the council can make it a minimum requirement for any developer.

Mr RAYNER: Certainly, if the council chose to take on that position it could.

The Hon. MARK BUTTIGIEG: The reality is that Lendlease would just go to the State Government and say, "We are coming to you directly to override this," in accordance with whatever instrument that it is able to apply. If the koala plan of management does not even have any effect in reality then all this is kind of meaningless, isn't it?

Mr RAYNER: I guess we are only at a certain point in the process now. Speculation is not helpful. A position has been put forward and that has been conditionally supported. How that progresses is really a procedural one. The council has a role in the process and can certainly make its position clear. The final arbiter of that is always the Planning department and the State Government through its decision to make a plan or not.

The CHAIR: Is council committed to ensuring the recovery of the koala population as we have heard today, in the area that we visited today?

Mr RAYNER: Absolutely. All of the principles that have been spoken about today—the expansion of the range of the koala, its continuing health, its connectivity through the area—are principles that our council—

The CHAIR: And you recognise that the corridor has to be 450 metres wide? That is the strategy, the corridor strategy that the councillors have agreed to.

Mr RAYNER: That is correct.

The CHAIR: And you heard evidence today from Lendlease that with a 450-metre corridor it is simply not enough land for them and that development is not viable? You heard that evidence as well?

Mr RAYNER: I did.

The CHAIR: So where does that leave council if it is committed to protecting the koala population that needs to travel between the Nepean River and Georges River and go smack bang through the middle of that development? You have got to make a decision.

Mr RAYNER: Well, certainly there is further work to be done.

The CHAIR: I am afraid we are out of time.

The Hon. MARK PEARSON: You should come to Macquarie Street.

The CHAIR: Apologies to Wollondilly council witnesses, but I think there were a lot of questions to ask Mr Rayner. Thank you very much for coming. If you have taken any questions on notice, we have resolved that they must be back within 21 days. The secretariat will be in contact with you in relation to those questions. If Committee members have any further questions on notice, would you be okay to take those as well?

Ms STENGL: Yes.

The CHAIR: If so, I think we will get them within 48 hours after the transcript. Thank you very much for appearing. That is the end of today's hearing. Thank you very much to everybody for your attendance today.

(The witnesses withdrew.)

The Committee adjourned at 17:02.