

TRANSCRIPT

LEGISLATIVE COUNCIL ENVIRONMENT AND PLANNING COMMITTEE

Inquiry into Ecosystem Decline in Victoria

Melbourne—Tuesday, 10 August 2021

MEMBERS

Ms Sonja Terpstra—Chair

Mr Clifford Hayes—Deputy Chair

Dr Matthew Bach

Ms Melina Bath

Dr Catherine Cumming

Mr Stuart Grimley

Mr Andy Meddick

Mr Cesar Melhem

Dr Samantha Ratnam

Ms Nina Taylor

PARTICIPATING MEMBERS

Ms Georgie Crozier

Mr David Davis

Dr Tien Kieu

Mrs Beverley McArthur

Mr Tim Quilty

WITNESSES (via videoconference)

Ms Carolyn Jackson, Acting Deputy Secretary, Environment and Climate Change,

Mr James Todd, Executive Director, Biodiversity Division,

Mr Hamish Webb, Director, Knowledge, Planning and Risk, Forest, Fire and Regions, Department of Environment, Land, Water and Planning;

Ms Kate Gavens, Chief Conservation Regulator, Office of the Conservation Regulator; and

Dr Mark Norman, Chief Conservation Scientist and Executive Director of Environment and Science, Parks Victoria.

The CHAIR: I declare open the Legislative Council Environment and Planning Committee's public hearing for the Inquiry into Ecosystem Decline in Victoria. Please ensure that mobile phones have been switched to silent and that background noise is minimised.

I would like to begin this hearing by respectfully acknowledging the Aboriginal peoples, the traditional custodians of the various lands we are gathered on today, and I pay my respects to their elders, ancestors and families. I particularly welcome any elders or community members who are here today to impart their knowledge of this issue to the committee or who are watching the broadcast of these proceedings. I would also like to welcome any members of the public who may be watching these proceedings via the live broadcast.

So at this juncture I will introduce committee members to you. My name is Sonja Terpstra. I am the Chair of the Environment and Planning Committee. Also appearing with me via Zoom today is Ms Melina Bath, Ms Nina Taylor, Deputy Chair Mr Clifford Hayes, Dr Samantha Ratnam, Dr Matthew Bach, Dr Catherine Cumming and Mr Cesar Melhem. There may be other committee members who join us momentarily, but I will let you know if and when that happens.

Now, all evidence that is taken today is protected by parliamentary privilege as provided by the *Constitution Act 1975* and further subject to the provisions of the Legislative Council standing orders. Therefore the information you provide during the hearing is protected by law. You are protected against any action for what you say during this hearing, but if you go elsewhere and repeat the same things those comments may not be protected by this privilege. Any deliberately false evidence or misleading of the committee may be considered a contempt of Parliament.

All evidence is being recorded, and you will be provided with a proof version of the transcript following the hearing. Transcripts will ultimately be made public and posted on the committee's website.

So if I could get each of you now, one at a time, just for the Hansard record, to please state your name and the organisation that you are appearing on behalf of. Perhaps we will start with you, Ms Jackson.

Ms JACKSON: Good morning again. Thanks, Chair. Carolyn Jackson. I am here as the Acting Deputy Secretary of Environment and Climate Change for the Department of Environment, Land, Water and Planning.

The CHAIR: Mr Todd.

Mr TODD: Yes, good morning. Thanks, Chair. James Todd, Executive Director of Biodiversity in the Department of Environment, Land, Water and Planning, supporting the joint submission today.

The CHAIR: All right. Thank you. Mr Webb.

Mr WEBB: Morning again, Chair. Hamish Webb, Director of Knowledge, Planning and Risk within the Department of Environment, Land, Water and Planning.

The CHAIR: Thank you. And Ms Gavens.

Ms GAVENS: Kate Gavens, Chief Conservation Regulator at the Department of Environment, Land, Water and Planning.

The CHAIR: Thank you. We might be having a little bit of audio trouble. We will see how we go there with that. And Dr Norman.

Dr NORMAN: Hello. Mark Norman. I am the Chief Conservation Scientist at Parks Victoria, supporting this multi-agency submission.

The CHAIR: Great. Thank you. I think I have got everyone there. So with that, I will hand over now to you to make your opening remarks, and after that there will be obviously plenty of time for members to ask questions. So thank you. Over to you, Ms Jackson.

Ms JACKSON: Thanks, Chair. Before we begin, I would like to acknowledge the traditional owners of the lands on which we are meeting today and pay my respects to their elders past, present and emerging.

Thank you very much for the opportunity to speak today at this hearing. We will provide an update on matters that have emerged since our last update and appearance in front of the committee and respond to some of the issues raised throughout the inquiry. This opening statement has been prepared by DELWP with input from Parks Victoria, who are represented here today by Dr Norman.

As part of the May state budget, the Victorian government announced around \$87 million to further support biodiversity recovery. This includes funding for community-driven action, Landcare and environmental volunteering, supporting Victorians to make a difference to the environment at the grassroots. Funding has also been provided to protect Victoria's critical assets, like Port Phillip Bay through the continuation of the Port Phillip Bay Fund, which has supported 100 projects over the past four years that protect the bay and its catchment area. Continued investment has been provided for Victoria's faunal emblems, the helmeted honeyeater and Leadbeater's possum, and for icon species like the orange-bellied parrot, Eltham copper butterfly and southern right whale.

We are also delivering on the over \$200 million investment announced in the November 2021 budget. From the \$18.3 million allocated towards deer control, work is underway to develop and deliver the regional deer plans in peri-urban Melbourne and in western and eastern Victoria, alongside investment in immediate actions to control deer across Victoria, such as control works at Mount Napier in south-west Victoria. The design and delivery of the \$77 million BushBank program has commenced, with public land managers currently identifying suitable sites for revegetation that provide good biodiversity and carbon outcomes. The BushBank program will also support revegetation and restoration of native vegetation on private land and will deliver increased habitat and improved connectivity for threatened species. This program is also providing significant opportunities for traditional owners, consistent with principles of self-determination. The private land component of BushBank is being run in partnership with Trust for Nature, given its long track record and established role in private land conservation.

A \$7.4 million community grants package was announced in February to fund small and large DELWP projects dedicated to preserving Victoria's biodiversity and waterways. The investment in Victoria's biodiversity over the past four years totals over \$400 million, which represents the single largest investment in biodiversity by a Victorian government in the state's history. There are also a range of other measures that are contributing to improved environmental outcomes in Victoria. These include the significant investment in improving the health of Victoria's regional waterways and wetlands and positioning Victoria as a leader in tackling climate change and creating new jobs and industries of the future through the ambitious climate change strategy. This strategy recognised the need for Victoria to mitigate and adapt to a changing climate. As such, since we and the department presented to this committee the draft natural environment climate change adaptation action plan 2022–26, together with six other key system adaptation action plans, has been released for public consultation. The final natural environment climate change adaptation action plan is due for release later this year and will establish practices, systems and knowledge to enable governments, organisations and the community to adapt to the unavoidable impacts of climate change on Victoria's natural ecosystems.

Dedicated funding will see *The Victorian Traditional Owner Cultural Fire Strategy* implemented, supporting traditional owners to undertake cultural burning and ensure this knowledge is sustained through generations. This investment will be delivered in partnership with Victorian traditional owner corporations, DELWP, Parks Victoria and the CFA, and will create new employment opportunities for Aboriginal people.

Further protection of Victoria's natural environment was enhanced by the announcement of 65 106 hectares of new national parks in Victoria's central west. These will link existing state forests, parks and reserves. The largest will bring together the Lerderderg State Park and much of the existing Wombat State Forest to create a new national park covering more than 44 000 hectares between Daylesford and Bacchus Marsh. A 15 000-hectare Pyrenees national park will be created north-west of Avoca, and a 5282-hectare Mount Buangor national park will double the size of the existing state park.

The new *Flora and Fauna Guarantee Act* threatened list has recently been published, with just under 2000 species making up the new list. The focus for DELWP is now on the development of action statements for all listed species over the next five years, which will identify the threats and management actions required to protect and recover threatened species and their habitats. Delivery of Victoria's commitments to threatened species and communities under the modernised regional forest agreements, or RFAs, has continued to deliver protections for forest-dependent threatened species. These commitments include implementation of interim enforceable protections and priority management actions where necessary for listed threatened species and communities present within each RFA region that have potential to be impacted by timber harvesting operations.

Interim protections include mitigations related to timber harvesting and a range of other hazards that directly respond to the impacts of the 2019–20 bushfires and seek to enhance the recovery of species and communities from that event. The interim protections introduced in April of this year and in place to April 2022 include targeted forest zoning amendments that will prohibit or limit timber harvesting in East Gippsland and Gippsland RFA regions for a range of species. For example, nearly 5000 hectares of forest will now be especially managed to protect the giant burrowing frog from the direct impacts of timber harvesting, and 25 000 hectares of high-value unburnt greater glider habitat has been rezoned to limit the extent of timber harvesting through to April 2022. Threatened fish and the Orbost spiny crayfish will have their habitat protected by extending buffers on waterways in critical areas. Zoning amendments are also in place to buffer and protect two listed subcommunities of rainforest from the impacts of timber harvesting. This work builds on the *Threatened Species and Communities Risk Assessment* completed in October 2020, which summarised information about 70 listed species and nine listed communities. Work will begin on the identification and implementation of any necessary permanent protections for delivery by April 2022. All 79 species and communities included in the 2020 risk assessment will be considered for permanent protections. This will include species and communities identified by the 2020 risk assessment that were not prioritised for interim protection at that time.

The *Wildlife Act* review is also progressing. The expert advisory panel have recently completed a community consultation period and are currently considering the community's feedback from over 600 submissions as they prepare their recommendations to government, which are to be delivered by 30 November this year. Government will then develop final recommendations for reform of the Act by the middle of 2022. Anticipated reforms of the *Wildlife Act* will complete the overhaul of Victoria's biodiversity legislation following the completion of the native vegetation regulations review in 2017 and the amendments to the *Flora and Fauna Guarantee Act* in 2020.

The marine and coastal strategy has recently been released for consultation. This strategy guides how the state's marine and coastal environments are managed into the future and aims to improve coastal habitats and help coastal communities prepare and adapt to the impacts of climate change. It will guide sustainable use and development and help identify the resources and funding needed to sustainably manage our marine and coastal environments.

These recent highlights are in addition to some of the outcomes being delivered by DELWP and partners since the Victorian government released its *Biodiversity 2037* strategy. There are a number of outcomes that I will not refer to in detail at the moment just given the time constraints, but if there are questions we can certainly cover them off—as I said, a range of initiatives and achievements which are just fantastic.

Despite this and the work that is being done that I have outlined and that we can talk to, we also know that there is significantly more to do to achieve the transformative change necessary to halt and reverse biodiversity decline in Victoria, particularly under the impacts of climate change. As *Biodiversity 2037* identifies, this cannot be achieved by the government alone and instead we need the support of traditional owners, non-government organisations, business and the broader community to better collaborate and target our collective

efforts to achieve the best possible outcomes. Building this collaborative and joined-up approach takes time, and as part of next steps DELWP will be looking to use this significant Victorian government biodiversity investment over the next period to leverage co-investment opportunities to help bridge the gap—for example, through emerging carbon investment or through strategic partnerships with a range of organisations.

There continue to be serious challenges presented by both climate change and the legacies of past actions, such as the impact of habitat loss and introduced pests and weeds on our native species and ecosystems. However, with increasing support, as evidenced through recent state budget allocations, and strengthened collaborations, as demonstrated in the collective conservation responses to 2019–20 Black Summer fires, there is both the opportunity to progress and an increasing willingness and commitment to respond to Victoria's many nature conservation needs. Thank you.

The CHAIR: Thanks, Ms Jackson. Ms Gavens or Dr Norman, did you want to make some opening remarks as well, or are you happy to leave it there?

Dr NORMAN: We have participated in the formation of that one, thank you.

The CHAIR: Okay. Fantastic. Thank you so much for those opening remarks. All right. We will throw to questions. Mr Hayes, we will start with you.

Mr HAYES: Thank you, Chair. Thank you to all of you for appearing today and for your submission and evidence today. I have got a couple of questions. I suppose I will start with an easy one. Could anyone outline to me what the legislative barriers are to allowing traditional owners to manage their own projects on public land?

Ms JACKSON: Thank you, Mr Hayes, for the question. I will ask Mr James Todd to answer that one if I can, please.

Mr HAYES: Sure.

Mr TODD: Thanks, Carolyn. Thanks, Mr Hayes. So Victoria has a range of arrangements with traditional owners in place that carry management arrangements for public land, including parks and reserves. There are a number of commitments that can occur through the various recognition and settlement agreements with various TO groups around their joint management and access to resources and use of and management of country. And DELWP is also implementing a range of programs with TOs relating to things like assessing and healing country, and some of that work is happening through the bushfire recovery investment as well as broader DELWP initiatives. So some of the legislative barriers—we would have to take on notice specifically what you might be seeking there. Other than that, obviously self-determination and the principles of supporting traditional owners to manage their own country are fundamental to the work that DELWP and our partners are doing.

Mr HAYES: So just further to that, Mr Todd, as far as you know, there are no legislative barriers; it is just a matter of how much DELWP can devolve to these Aboriginal and Indigenous traditional owners.

Mr TODD: I might ask others on the call if they want to answer that. Mark Norman from Parks Vic might be able to answer from a Parks Vic perspective. There may well be legislative barriers, Mr Hayes, that I am unaware of that might be in particular circumstances, but essentially I guess what I am saying is that DELWP is working through a process with PV and partners to support self-determination of traditional owners, which includes management of country that they are responsible for.

Mr HAYES: Okay.

The CHAIR: I also see that Mr Webb has got his hand up there.

Mr HAYES: Sure. Thanks, Mr Webb.

Mr WEBB: Yes, I am happy to step in and help out with some of that. As Mr Todd spoke to, there are different agreements in place in terms of recognition and settlement agreements et cetera, which do pass on some legal opportunities for traditional owners across Victoria. So it depends on which part of Victoria we are looking at and which traditional owner group we are looking at in terms of their legislative barriers, so it does

differ depending on the agreements that have been struck, and that is up to each of the traditional owner corporations or groups to work their way through that process.

In terms of bushfire management, there are some legislative barriers. So the chief fire officer for DELWP has accountability under the *Forests Act* to maintain and suppress bushfire. He cannot pass that off at this stage; that is something that he needs to acquit. So that is a legislative barrier in terms of some of the fire practices. Now, we are working with traditional owners, and it was touched on in the brief presentation from Carolyn in terms of the funding and investment from government—so \$22.5 million over the next four years and \$6 million ongoing to support traditional owners to undertake cultural fire on country. As part of that too is a project and program to look at what are those legislative barriers and things like that. To give you an example, there are barriers if there is a fire permit required to undertake cultural fire practices. They require that no matter what country they are on; if it is public land or private land, they need permits to do those sorts of work. So there are some larger sort of legislative barriers in place that are restricting traditional owners to undertake practice, particularly around fire. But yes, there is a program to work through what they are.

Mr HAYES: Thanks, Mr Webb. My second question is a bit harder, and maybe you could tackle this one.

The CHAIR: Mr Hayes, there is a full board of all of us, so again it is going to be hard to manage time. So if you do have additional questions, you could also submit them on notice, but I do not want anyone to miss out. So if you can keep it short and keep rolling, that would be great.

Mr HAYES: Yes. All right, look, to keep it short: we have heard a lot from other submitters that we are facing a biodiversity crisis, and many have pointed to problems with compliance and enforcement rigour within DELWP, maybe a bias towards industry against the environment sometimes. But could you tell me, in the way of prosecutions for things like illegal clearing and native vegetation removal and failure to protect biodiversity: have you launched many prosecutions in this area?

Ms GAVENS: Clifford, I am happy to answer that as the Chief Conservation Regulator.

Mr HAYES: Thanks for answering that.

Ms GAVENS: We every year go through a process of determining regulatory priorities for the conservation regulator, because we have a vast number of laws that we administer. One of our key priorities is illegal take of timber from state forests, and we work in partnership with Parks Victoria on that operation to look at that in national parks as well. Last year, as part of our operations, we detected in the order of 100 people undertaking illegal take of timber. A range of those went through the courts, and we have got some of those matters in court at the moment. But some of the outcomes and some of the implications of catching people undertaking illegal take include seizing vehicles, seizing equipment such as chainsaws as well as [Zoom dropout]—

The CHAIR: Sorry, Ms Gavens, it seems we are having some problem with your audio. Do you want to just try maybe turning your camera off for a sec and see whether that might fix the audio? Sometimes these very rudimentary tricks might work. See how that works.

Ms GAVENS: Apologies for that. Is that any better?

Mr HAYES: Yes, I think it is.

Ms GAVENS: Excellent. Apologies for that. I can provide you the exact figures following the hearing of the number of court cases we currently have in relation to, for example, illegal take of timber. But certainly we have got a number of cases currently before the courts and we have had a number of recent successful court cases, with fines of up to \$10 000 for people for illegal take of timber.

Mr HAYES: Maybe if you could supply us with details of prosecutions in those areas, that would be great. Thank you.

Ms GAVENS: I am very happy to do that.

The CHAIR: Great. Thank you. And that audio is still a bit of an issue, so we might see if the secretariat might be able to help somehow there.

All right, moving on. I might just ask a quick question if I can, and this is in regard to the 2020 progress report for *Biodiversity 2037*. Are you able to explain or expand on any recent progress you have made in relation to threatened species targets?

Ms JACKSON: Thanks, Chair. And I will hand over to Mr James Todd again to answer this question, please.

Mr TODD: Thanks, Chair. So part of the commitment under the *Biodiversity 2037* strategy is around annual reporting on progress against the targets, and those targets relate to outputs such as control of pest predators in priority areas, control of pest herbivores, weed control, revegetation, permanent protection of habitat on private land and the like, and these outputs that are reported on feed up into broader outcomes for biodiversity in terms of essentially a measure of the likelihood of species persisting in the state. So the idea here is, using the best science that DELWP has got available and models at our disposal, we are able to estimate those actions that are going to deliver the best outcomes for the most number of species, à la the *Biodiversity 2037* strategy, which is really about trying to reverse the overall decline of biodiversity in the state. And so that is what those annual reports are about in terms of the outputs. Then as I said, they cascade up, if you like, to broader outcomes in terms of the status of biodiversity in Victoria and how it is tracking going forward. So within that there are also a range of outcomes that get delivered for threatened species, and there are a range of outcomes for particular threatened species that are the focus. The DELWP approach is both thinking about landscape-based threats, such as weeds and pests, as well as specific actions for key threatened species. There have been a number of recent outcomes, such as, for example, the helmeted honeyeater, which is one of the state's faunal emblems. It has recently hit a population level which is one of the highest in decades as a result of sustained effort for that species. Members of the committee may have seen some recent press, where there has now been a new population of helmeted honeyeater established beyond Yellingbo, the idea there being trying to spread risk from potentially future fire and impacts of storms as we have seen recently in the Dandenongs. That is one example.

Another example of a threatened species outcome that has been recently delivered is the eastern barred bandicoot. Eastern barred bandicoots have been under threat from a range of previous habitat loss and also introduced predators. Numbers got down to extraordinarily low numbers back in the 1980s, to the point where that species was presumed extinct in the wild, and the last of the animals that were in the wild were taken into captive populations as an insurance. Work over the last 10 years and more recently has seen the genetic mixing of the Victorian population with the Tasmanian population, where the species is more common and genetically distinct, and the species has now been reintroduced into several predator-free areas in Victoria, and this has seen the recent change in the status of the eastern barred bandicoot going from 'presumed extinct' in the wild to 'endangered'. So this is probably one of the first times in the state's history that we have actually seen a species that has been downgraded, essentially, or had its conservation status improved as a result of a whole heap of actions from the Victorian government and project partners. So they are just a couple of examples, Chair, of some of the threatened species outcomes that have been delivered, and there are many more examples across the state that I could talk to if need be.

The CHAIR: Great. Thank you. In the interests of time, that is fantastic, and if there is any further information you would like to supply, you can supply it on notice as well. All right. Dr Ratnam, a question?

Dr RATNAM: Thank you very much, Chair. Thanks again for appearing before us. Obviously between the last time we saw you and speaking to you now we have heard a lot of very powerful evidence over many months now about the state of our species and ecosystems across Victoria. There is probably a lot to respond to. I am really interested to know what your reflections on the evidence are. It is probably too big a question, but just to hone it in a little bit more, we have heard evidence about the types of approaches you can take to species management and conservation—the landscape-based approaches, as you just referred to, Mr Todd, coupled with species-specific approaches. We have heard from ecologists and other experts that Victoria has preferred the landscape approach versus the species-specific approach, notwithstanding some of the species-specific work that you have just cited that is happening.

It strikes me that you have worked on some species-specific work, but it has been quite limited for a limited number of species, yet we have now got 2000 species that are threatened. So it kind of begs the question: is it a question of scaling up? Is what needs to happen now that you just scale up the species-specific work to address those 2000 species? What are the barriers to taking more of a species-specific approach to complement the

landscape approach—for example, a program like Saving our Species, which New South Wales is running and which, we heard evidence, is working quite well? Is it funding? For example, we have heard very strong evidence that funding is just woefully inadequate for the task that we have at hand. We have had proposals that we should be spending a minimum of 1 per cent of gross state product, which is vastly more than what we are actually allocating to species management and conservation in Victoria. So I am interested to know, from the evidence we have heard—hopefully you have been following the inquiry—what is your feedback and reflection on what Victoria needs to do now in terms of species-specific work for the 2000 species that are listed as threatened?

Mr TODD: Thanks, Dr Ratnam, for the question. I think I would start by saying that conservation should not focus solely on the most endangered species. Focusing on critically endangered species alone is unlikely to be the most effective way of preventing extinctions, because the actions are typically high risk and high cost and highly uncertain, so *Biodiversity 2037* focuses more on how ecosystems and ecological processes can be managed to the benefit of all species, particularly given the impacts of climate change. And as you say, this includes broadscale threat management that benefits multiple species, reducing the risk of species becoming more threatened—so stopping the tide of a species becoming more threatened and more endangered—and specific threat management to meet unique needs of individual species or situations.

So the Victorian approach is not one or the other, it is both. And we are aware of some of the submissions to the inquiry. I particularly recall Professor Brendan Wintle in his submission to the inquiry, regarding the need for both landscape and individual species recovery approaches. Essentially the *Biodiversity 2037* landscape approach also focuses on threatened species, and so what we are really saying there is that we are trying to identify the best actions that will deliver the best outcomes for the most threatened species.

For example, one of the projects that was funded by the Victorian government under the biodiversity response planning process was a project within the Grampians—Gariwerd—National Park, and that was a project that involved obviously Parks Victoria but working with traditional owners and a range of non-government organisations and partners to tackle a range of pest herbivores, including goats and deer, but also pest predators—foxes and cats—and weeds. And that project is providing an uplift for a range of threatened species. Most notably, literally in the last 12 months both southern brown bandicoot and long-nosed potoroo have been recorded within the Grampians National Park, and that is an example of the direct effect of some of that management. So these are species that have been either missing or at least at very low numbers and not detectable.

Coming back to your question, then, we know there have been recently nearly 2000 species listed on the Victorian threatened list. We know that biodiversity is in decline in the state; that is well stated, and the biodiversity strategy is in response to that. Our approach will continue to focus on what is going to deliver the best outcomes for the most number of species. Obviously the development of action statements and management plans under the FFG Act for those newly listed species will commence, and that will be really important in prioritising actions, but essentially our approach remains the same. And what we will do better in the future is report more holistically on some of those threatened species outcomes, because I think your reference to the Saving our Species program in New South Wales—it is a fantastic program, it is really admirable, but the reality is that it also is just biting off a chunk of the species and saying, ‘Well, we’re going to focus on these species’, and not necessarily being concerned about, as I said, the tide of species that are coming behind. So Victoria’s approach is different to that, but we also recognise we need to do a better job in reporting some of the threatened species outcomes that have been delivered through our programs and approaches; hence some of the examples I have given today are things that we need to help communicate better. I agree with that.

Dr NORMAN: Chair, can I add a point?

Dr RATNAM: No problem

Dr NORMAN: Dr Ratnam, I would just like to add a point that there is also a bridge between that species focus and the landscape-scale approach, and that is work being done in safe havens and sanctuaries and insurance populations where extra effort is put on a region like the Prom sanctuary proposal, where we are fencing the area to protect 50 000 hectares. That protects all the species that are in there, many of them threatened, but it also becomes a safe haven to bring insurance populations to, like the eastern bristlebirds from far East Gippsland. We can have an insurance, risk-reduced population there as well. So it is not sort of binary.

There is a bridge between, in that we are making larger areas protected but also there is this work done that is very focused, like the Southern Ark one with all the ramped-up pest control in Gippsland, which has seen a great saving of species from the threat of foxes and cats. So it is not an either/or; there are all these bridges connecting the two. I think the sanctuary and safe haven approach is going to be really critical in light of the scale of impacts. As mentioned last night in the IPCC report, this is coming fast. We are already seeing the signs of it. It is a massive issue for our entire nature in Victoria, and we have got to try all the tools across the spectrum.

Dr RATNAM: Thank you so much, Dr Norman and Mr Todd. I was just also going to ask: do you know how many species are being worked on in Victoria in those kinds of different approaches? Do you have that quantum?

Mr TODD: I would have to take that on notice, Dr Ratnam. As we said—as Mark is saying and as I have said—our approach is about trying to maximise the benefits for all species and obviously with a focus on threatened species as part of that. If you think about things like projects, as I mentioned, that are happening in the Grampians or work that is going on with respect to Southern Ark in East Gippsland, which is the largest ever pest herbivore and predator control program in the state's history, using aerial and ground shooting and a range of approaches, there are literally hundreds of threatened species that have benefited from that program and those approaches. So we can pull that information together and come back to you on that.

Dr RATNAM: That would be great. Thank you.

The CHAIR: If you could provide it on notice, that would be great. It seems like whatever approach works is useful—as you say, not either/or. Mr Meddick, question?

Mr MEDDICK: Thank you, Chair, and my apologies for coming in late to this presentation—I am kind of flying a little bit blind here. I just wanted to ask James a question if possible. I note that he was talking about the Southern Ark there, where a number of shooting programs are going on. I am just wondering on what basis we are being told that aerial shooting is actually effective at all and indeed humane, given that we are talking about large herbivores in the instance of wild horses, which spook. I have spoken with a number of professional shooters who tell me that the only way to successfully do it is like the old movies that we used to see about deer hunters in the United States, for instance—so the only way to really do it is to approach these horses quite stealthily and get a good clean head shot in a particular place, and that requires an enormous amount of skill and silence really. I do not understand, and a lot of people do not understand, how approaching a herd of animals from above in a very noisy contraption and then asking someone to be better than an Olympic sharpshooter, for instance, to be able to get a clean and humane shot to an animal is even perceivable in the realms of common sense. It is a very difficult thing for people to understand, and I am sure you can appreciate there is a lot of angst in the community about that. Then if you transfer that over also to deer and other species, it is exactly the same, given that all these species also have a fight or flight reflex. As soon as a shot is heard, the rest of them scarpers. I do not understand how an aerial shooting program can be considered.

Mr TODD: Thanks, Mr Meddick. I think the question there is around the effectiveness of aerial shooting and its humaneness. Is that where you are coming from?

Mr MEDDICK: Correct.

Mr TODD: So the first thing I would say is that there is no control of feral horses going on from aerial shooting. That is the first statement. But in terms of the effectiveness of deer control, for example, DELWP has released a report on the efficacy of aerial deer control following part of the bushfire response. It is estimated that up to 50 per cent effectiveness, in terms of the control of animals within the target area, was achieved. Obviously we apply the absolute highest standards in terms of animal welfare in those circumstances, so there are no shortcuts taken. Animal welfare is paramount. You also need to compare the use of aerial shooting to what other options there are. So for deer, as you well know, there are not many effective control options for deer apart from shooting. The options are either ground shooting or aerial shooting.

Talking about killing animals is not much fun, and I know that there are concerns in the community, but it is about comparing the different approaches. There is no doubt that, even if you add in the cost of flying helicopters around and the cost of deploying aerial crews, there is lots of evidence to show that it is far more

effective in certain circumstances—when there is visibility and you can ensure the adequate health and safety and welfare of the animals and of operators—and that it is far more cost effective than ground shooting.

Mr MEDDICK: Great. So you can confirm then that there are no horses currently being shot from the air and that there are no plans to do so?

Mr TODD: I can confirm that there are no horses being shot from the air. Mark, you might want to talk about the Parks Victoria and alpine horse action plan.

Dr NORMAN: The draft alpine horse action plan has got aerial shooting in there as an option in exceptional circumstances. It is not the preferred method. It is there as an option if we find issues of animal welfare in extremely remote areas or very high conservation assets that are being impacted, and there will be protocols that explain the details of how that will be done and the oversight. It has been put into the draft plan that has gone for public comment. Those public comments are being incorporated at the moment and will be completed this month, and then it will be taken to the Parks Victoria board and the minister for further consideration, and that plan will be released in coming months.

Mr MEDDICK: Just a quick question then as an adjunct to that—and I am sorry, Chair, to take up so much time on this: does it actually list what those exceptional circumstances are rather than making just a statement and then leaving that open to interpretation?

Dr NORMAN: It categorises the statements of welfare issues, and during the fires, flying over areas where there was no feed on the entire landscape, there were horses there with bones sticking through—their ribs and pelvis bones. We can supply you the images.

Mr MEDDICK: Oh, no. That is perfectly fine. Yes, I understand that.

Dr NORMAN: We feel it is more humane to use those techniques where we cannot land. We will outline in the plan those circumstances, the conditions under which it would be exceptional, but our intent still with those plans is rehoming as the priority to meet any capacity that can be built and then ground shooting as a necessary option to protect really endangered ecosystems that are in all sorts of trouble under a rapidly changing climate and other threats. It is across all threats—pests, weeds, climate change, transforming climates.

Mr MEDDICK: So from my end, so long as rehoming is always the first option.

Dr NORMAN: Subject to capacity, and if there is not capacity then the outcome, as has been demonstrated in New South Wales, is transport to a knackery, which is not an outcome that has welfare benefits for the capture, the transport, the final outcome. We feel it is more humane to act on site with highly professional contractors and it is the most humane option available in a very difficult situation. Nobody likes it, nobody is comfortable about this. This is one of the complex, stressful outcomes of introduced species and threatened ecosystems.

Mr MEDDICK: Thanks so much. Thank you, Chair.

The CHAIR: Dr Bach.

Dr BACH: Thanks very much, Chair. I want to return if I may to the topic of Dr Ratnam's question a little earlier regarding threatened species. She referred just briefly to some of the testimony that we have received, and you in your response, Mr Todd, referred to Professor Wintle, who we heard from some months ago now. He had some strong views about the government's approach to threatened species. He said that your policies were 'pitiful', and that is a direct quote from him. We heard from other experts like the CEO of the Invasive Species Council, who said that the department was, and I quote, 'patronising' and had 'a command-and-control' approach that led to policy failure specifically regarding threatened species.

We have also heard, among others—I could go on but I will not—from the Threatened Species Conservancy, which said that your policies regarding threatened species were 'devastating'. Yet your response to Dr Ratnam's question was radically different from the evidence that we have heard very consistently from expert after expert. Do I take it correctly from your response that your view is that all of these experts lied to the committee?

The CHAIR: Dr Bach, I think that question is out of order. You are asking for witnesses to give an opinion on something—about whether other people have lied. I do not know that that is really directly relevant to the terms of reference. Would you like to rephrase your question?

Dr BACH: Of course, Chair. Was the evidence that we have received from others untrue?

The CHAIR: That is not helpful either. I will give you one more crack. If you cannot rephrase it into something that is relevant to the terms of reference—again you are asking for witnesses to give an opinion, and that is not appropriate. So one last go, Dr Bach, before we move on to someone else.

Dr BACH: Thanks, Chair. The terms of reference refer specifically to declining biodiversity. May I ask, Chair, how the department responds to some of the submissions that we have received from others regarding the government policies to threatened species?

Mr TODD: Thanks, Dr Bach. As I said previously and as is clearly identified in the *Biodiversity 2037* strategy, biodiversity decline in Victoria is continuing, and it is a result of the legacy of 250 years of colonisation, loss of habitat, habitat fragmentation, the introduction of weeds and pests and a range of other threats, as well as obviously the current impacts of climate change and the threat that that poses to our ecosystems and threatened species. So absolutely we are on the record as saying that biodiversity is in decline, and that is really what the *Biodiversity 2037* strategy was about and in response to, and the policy idea around the strategy was about reversing that overall decline by 2037. So it is a long-term strategy, because turning the ship around will take a long time because of the legacy effects of all that previous habitat loss and clearing and current threats that are operating, as we have heard today.

In terms of the approach, as I said, the Victorian policy is about saying we need to act in a way that delivers the best possible outcomes from those interventions, and so within whatever capacity constraints that we have, DELWP's approach is to identify actions and invest in actions that are going to deliver the best possible outcomes. Now, some of those actions relate to, as I said, landscape-based threat management, as we have heard with the Southern Ark project, across a million hectares of forests in East Gippsland. In other cases it is very specific threatened species management to do with translocations or gene mixing to improve genetic resilience of species. So all those actions are in the mix, and the challenge is obviously how you make decisions on the basis of the best available science to inform those decisions about what are the best things to do.

The CHAIR: Thanks very much. Dr Norman, very quickly.

Dr NORMAN: I would just add a point, Dr Bach. Being across the issues right across the state, these are gigantic. These are thousands of species; these are whole ecosystems collapsing. There is so much more to be done. There is a huge task here, but I do have to give full credit to the government and DELWP that they have significantly increased conservation funding. They have put a framework of how we try and do better. It is something that is moving so fast that we are seeing that, you know, two weeks of bushfire loses 500 000 hectares, including rainforests that will never come back.

Those comments, though well intended and constructive from those participants, everybody agrees on; everybody agrees this is the issue and the scale of what needs to be done. The work that is being done is moving towards that, and there is fantastic collaboration, including all those people that DELWP draws together to do things like rapid responses to bushfires—the Black Summer bushfires. I do not think it is a policy or a structural failure. I think it is something that needs more and more support over time, and the value of nature is being shown to us every day, how extreme this is and what is needed. And I would say the uplift has been the biggest in Victoria's history, so we are on a trajectory to doing as much as we can, and I do not think it is a failure of policy, strategy or approach. I actually think it is moving as fast as possible in the right direction and will always need more support.

The CHAIR: Thanks, Dr Norman. Ms Taylor, a question?

Ms TAYLOR: Yes. So I am just thinking—I think there are many in the community who are genuinely passionate about improving outcomes across the board. What message would you want to send—and this is a very broad one—to members of the community, whether in regional or whether in metro areas? What can they do to make this better as well? I know it is about discussing government here today, but obviously it is a collaboration at the end of the day—maybe even private investors, if you want to zone in on that.

Mr TODD: I will take that one. Thanks, Ms Taylor. So there are a range of things that individuals can do both as individuals and also as part of groups. Victoria has an environmental volunteering plan, which is about encouraging volunteerism to support action with respect to positive environmental outcomes. Every year we produce a Victorians Volunteering Naturally statement, and it has shown that the number of volunteers in Victoria, even while we have been under COVID and maybe because of, has increased by about 30 per cent in 2020 from 2019, so that is a really significant uplift. Of course what we are noticing with people, particularly under lockdown, is that they are getting closer to nature and making more observations. So even things like citizen science, adding valuable data to datasets and databases that really contribute to the state's overall knowledge of biodiversity, are really important. I am just pulling up the stats here. In 2020 there were some 186 000 Victorian volunteers across over 2000 groups giving their time to support the environment. That represented a 39 per cent increase in terms of environmental volunteer participation from 2019, so that is quite significant.

The Victorian government has continued to invest in, for example, Landcare and environmental volunteers through the recent state budget announcement, with a large commitment—some \$27 million over the next four years for environmental volunteers and Landcare—that continues to support those really important programs. So there are opportunities for people to participate. At an individual level we also have a range of science and information which can support individual actions that would actually help improve the natural environment. So things like responsible pet ownership are really important; keeping your cat inside essentially is a part of that.

We know that there are a lot of people who are participating in programs like Gardens for Wildlife and Land for Wildlife. So Gardens for Wildlife is a local government run program which encourages landowners, particularly in metropolitan areas, to plant native species in their gardens to attract wildlife. Then elsewhere in Victoria, particularly in regional Victoria, there is the Land for Wildlife program, which has got many, many thousands of landowners who are managing their properties for improved habitat. And then the alternative to that is the Trust for Nature, which is obviously Victoria's primary and premier private land conservation agency, and its work with protecting tens of thousands of hectares through its conservation covenant program, where private landowners can enter into a permanent agreement on their land to protect the habitat and register that on the title. And the trust is also involved in buying land and managing land itself.

So there are a range of opportunities for Victorians to participate both at a very much individual level and potentially as part of volunteer groups that are contributing to good environmental outcomes, as well as what people can do on their own properties.

Dr NORMAN: I think there is a message there of 'What you do—does it help or hurt nature?' for people to put that lens on things, and I think there is a message around 'Nature needs us more than ever, and we need nature'. It has been demonstrated—the value of nature in massively burnt areas for regional economies and tourism and economic development. It is more important than ever, so I think that filter of 'What you do every day—does that help or hurt nature?' is a good angle—to support what James was saying.

The CHAIR: Great. Thanks. Ms Bath.

Ms BATH: Thank you—most interesting. My first question is around Indigenous cool burns. The New South Wales government in concert with the National Indigenous Fire Network—we saw a demonstration in the Shepparton region—are now undertaking certificate III in conservation and Indigenous land management. There are now apparently 40 students enrolled in that accredited course. Will DELWP be interested in spending some of that money that you have just noted on this sort of course so that people can actually get accredited and therefore be able to conduct burns on both public and private land?

Mr WEBB: Thanks, Ms Bath. I am happy to take that question. The funding we spoke to, the \$22.6 million, will go to the traditional owner corporations in Victoria, and it will be up to them in terms of determining how that is spent. To support that we have established a traditional owner led Aboriginal fire leadership group, which will have its first meeting in a couple of days time. That will set some of the priorities in terms of how traditional owners want the government to work with them in terms of delivering cultural fire. One of the key things around cultural fire is that it is a traditional owner practice and it needs to be delivered by traditional owners in line with the principles of self-determination, so as a government we will not be telling the traditional owners what to do and how to manage with cultural fire. We will be there to support them.

Going back to the first question—removing any barriers that are in place to stop them undertaking cultural practice—more broadly, we supported that demonstration you were talking about. There was a national Firesticks in Barmah forest in 2018, I think, that we funded and supported, and we have funded and supported traditional owners to attend a number of the Firesticks conferences over the last number of years. So we will take the lead of traditional owners in terms of how they want to reintroduce cultural fire back into Victoria. Above and beyond that we are also talking to traditional owners about how they can be involved in the broader land and fire programs, not just about cultural fire practices but also cultural land management and the reintroduction of cultural land management practices as well.

Ms BATH: Thanks very much. My next question goes to the very important issue of bushfires and fuel loads. It is interesting to hear the commentary today about ‘There’s been no structural or policy failure’. I would guarantee that if you had a wander down into the burnt areas of Eastern Victoria Region and said, ‘There’s been no policy failure’, you would have a different response. There have been others that have said that about the government’s response and the current policy about *Safer Together*—and I do not need a big, long discussion on that because you have documented it. The Auditor-General said that there are some significant failures in *Safer Together*. The government has over the last four years only produced something in the vicinity of 87 000 hectares of preparatory burn, yet we had 1 500 000 hectares burnt through unmitigated bushfire. Now, I am just wondering why the DELWP submission does not include a discussion around fuel loads and fire intensity—that is my first question—and why the DELWP submission does not talk about impacts and compare fire intensity of bushfires versus low-impact preparatory burns or Indigenous burns.

Mr WEBB: Yes, thanks. I am happy to answer that question, again, and I will not touch on the *Safer Together* risk-based approach that occurred, the transition in 2015. I am not quite sure of the figures you have used there, and we can sort of provide the last five years of planned burning versus fire history to the committee to help get that there. What we do know is that obviously the 2019–20 bushfires, 1.5 million hectares—that is not an outcome about which anyone would sit down and say, ‘That’s what we’re trying to achieve; that’s success’.

One of the key drivers to our approach to bushfire management to date has been around the protection of life and property. So we have got a number of things that drive the policy in Victoria, *Safer Together* being one of the policy settings. On public land it is driven by the code of management for bushfire on public land, and it sets really two key objectives. The first objective is around managing the impact of major bushfires on communities, so life—communities, critical infrastructure, industry and the environment. So it is about managing the impact of bushfires. The second objective is about maintaining ecosystem resilience and ecosystem services. That talks to water, carbon and environmental values as well about the maintenance role, because as we all know, fire is a natural process. It is not something that is constructed, it is something that occurs all the time in Victoria. So in terms of our fuel management program, we are able to show that in terms of that risk reduction to life and property—and I will talk to the improvements we have put in place that will help us do more than this—planned burning has far greater contribution to reduction of risk to life than bushfires. So from the period of—

Ms BATH: Could you just say that again?

Mr WEBB: Yes, I will go through it. Very clearly from 2009 to I think it is 2019—I can provide these exact details to you—in that 10-year period planned burning was responsible for 67 per cent of the reduction of risk to life and property compared to bushfire. In that same period of time well over 1 million more hectares was burnt by bushfire, so what that tells you is that bushfires indiscriminate—it burns everywhere. A fuel management program can be targeted and achieve a more significant reduction of risk to life and property. I will be really clear on that one because what the 2019–20 bushfires showed us is that obviously life and property are not all that we are managing for. If we think about the communities that were cut off and isolated, infrastructure impacts in terms of roads and power and the ongoing recovery efforts for the environment—and Mark or James spoke to the impacts on rainforests et cetera—if I go back to those objectives of the code, the work we are doing now is about how we do a couple of things: one, how we make sure that our modelling improvements, which were delivered and we are in the process of finalising, are able to be tailored to different parts of the state. We know that fire behaviour, fire weather, in the Mallee or the west is different to fire weather and behaviour in East Gippsland or the alpine areas, so how do we tailor our approach to recognise the fact that we do have different types of fire weather and different types of fire behaviour?

The other thing we are now looking at and we have done a lot of work on is: what are some of the other measures and metrics we can put in place? So we are looking at how we break up the landscape to prevent the large-scale fires that we saw in 2019–20. But it is not just those ones. You go back to the Grampians fires that we had in 2000—80 or 90-odd per cent of the park burnt in that period of time. I mean, 10 000 hectares, if it occurred in the Little Desert, would be significant in terms of its impact on values. So we are now able to identify where in the landscape there is a predisposition to large-scale landscape fires and tailor our fuel management program to support that. We also recognise that it is not just about public land. We realise there are areas of private land. So how do we increase the effort and support for private land fuel management? That is one of the key findings of the inspector-general for emergency management's report into the 2019 fires about making sure we are looking at and able to treat risk across the entire landscape.

If you look at the recent budgets from government, they have supported an increase in mechanical fuel treatments for those sorts of targets. Those that have driven down the Great Ocean Road recently would have seen the works around Anglesea. There have been significant mechanical fuel treatments, which, whilst they might look a bit confronting to start with, over time sort of soften out. They are critical to do two things. Where we cannot undertake fuel management—because in some areas around there the houses are in the bush. If you have been to the back of Anglesea or Aireys Inlet, Fairhaven et cetera, the houses are right up adjacent to the bush, so being able to mechanically treat them—so mulch them or slash them—is critical. And also just as important is to provide safe access and egress for the communities to get in and out of those areas.

But one of the key things, when you look at all those inquiries, is that fuel management is not a panacea—it cannot solve and save the bushfire side of things—and that goes to the royal commission that was held into the 2019 fires as well. We need a really blended approach recognising that different things work at different times. We know that fuel management is incredibly effective at lower fire danger indices. So how do we use it to help support response efforts so we have got more time to get the firefighters to new starts when they start? We know because of climate change we will have more storm activity, which will lead to more lightning events. We will have more fire starting in the back country. So how do we get there more quickly? How do we make sure we have the infrastructure, such as water points and roads, to be able to respond to those sorts of fire spaces? And how are we working with communities to make sure they have got the information that they need to be able to, one, prepare their houses; two, know where they are living and the bushfire risks that they live with; and, three, what they can do under different conditions.

So that is kind of the risk-based approach: just making sure we are pulling all those different levers in the most effective and efficient way. And really important, if you look at the work we are doing now, is making sure we have a much better understanding—incredibly relevant to this inquiry—about the different impacts that the different fire regimes have on species and the environment.

Ms BATH: Thank you. Thanks, Chair. One very quick final one. The bushfires royal commission, the first one a few years ago, actually identified 5 to 8 per cent prescribed burning, and this government at the moment is at less than 2 per cent. That is the first thing. I am happy to provide a graph or a table that identifies in south-west WA that they are looking at around an average of 8 per cent burning, and their mega-fires are well down, meaning their prescribed burns are working and their mega-fires or bushfires are significantly less and burn significantly less area. I will just continue on some questioning, Chair. I know there are others who would like to make a comment or ask questions, so I will put some questions on notice in relation to that.

The CHAIR: Mr Webb, did you want to respond to that quickly?

Mr WEBB: Very happy to. We provide the information in terms of the level of burning that is undertaken each year. I think we need to be careful in looking at Western Australia. It is very different in terms of the topography of Western Australia. They are not devoid of large impact in bushfires either, but their topography is extremely different to Victoria in the fact that they have got a lot of flat plateau areas in the south-west in particular in that area. But we certainly look and we learn, and we spend a lot of time of time talking to other practitioners and sharing what we can in information.

I think the other one, too, is fuel management use, and planned burning in particular is the window of opportunity. We spoke earlier in the previous inquiry around understanding planned burns are not without impact. Smoke impacts of planned burning are significant, and we do have modelling to help our decision-

making on smoke about where, when and what that impact will be on community health but also on industry—the likes of viticulture and bees et cetera in that space.

In terms of our hectare program, and we saw this when we did have a hectare program, it drives burning into areas where it may not be as effective for any of the values we are trying to protect. So we end up burning large areas of the Mallee because we are chasing an area to burn, or we end up burning without actually achieving the objectives of what we are trying to achieve, which is about reducing risk to life, property and environmental values. We can actually hinder and impact the environmental values more than protect them.

The CHAIR: Great. Thank you. Dr Cumming, a question?

Dr CUMMING: Thank you, Chair. My question is around: what are the government's current time lines in purchasing strategic properties for conservation, seeing that we actually heard from the Grassy Plains Network. I understand we currently have a bit of a dire situation facing the grasslands in Melbourne's west, which contain a lot of threatened and endangered species. They obviously are under threat from urban growth, and the state government has an offsetting program under the Melbourne strategic assessment. What I can see is that the government are not keeping to their current time lines of actually purchasing property and land for conservation. If we continue at this current rate, the land that was meant to be purchased—I think the target only a couple of years ago was 2025—is going to be pushed out to 2050, almost 25 years more than what was set originally in the way of purchasing land for conservation. If this land is not purchased for conservation, we struggle to actually have the desired outcomes for those western grassy plains.

Mr TODD: Thanks, Dr Cumming. I can take that one. Obviously the acquisition of the western grassland reserve under the Melbourne strategic assessment was the subject of a recent VAGO audit, and there has been government response to that. In short, the government is committed to the purchase of the 15 000-hectare western grassland reserve and is committed to doing that as quickly as possible. Obviously, as you point out, the Melbourne strategic assessment is an offset program, so it is funded out of the levies that are paid by developers, where they have got approvals to clear habitat, and habitat for nationally threatened species and the like. So the program delivers the benefits to developers in terms of a streamlined approach and reduced costs, but also it is about establishing those strategic offsets like the western grassland reserve, which will also deliver biodiversity benefits for a range of threatened species and threatened communities. But the issue there of course is that the funding for the program is dependent on the rate of development in terms of the fees that are paid and the levies that are paid by developers, and the VAGO report and inquiry did demonstrate that the rate of acquisition of the western grassland reserve has kept pace with the rate of development in terms of the levies that have been paid. Obviously the establishment of the *Melbourne Strategic Assessment (Environmental Mitigation Levy) Act* means that those funds will also be adjusted over time as costs change, either in terms of the land value or costs of management and the like. So that sets us up for the future.

Suffice to say that there are a number of properties that are currently being negotiated within the western grassland reserve and we continue to acquire land on a voluntary basis. We are hopeful that over the next 12 to 18 months a number of those land purchases will proceed and a significant proportion of the western grassland reserve will be established and under Parks Victoria management.

Dr CUMMING: Just on that, would you be able to provide this committee with the VAGO report? What I can understand is that obviously from the developer contributions there is a fair amount of money there. Is there actually a time line in the way of strategic purchases, as in a more clear end line for when the community will know when all of that land is actually purchased, because it seems to keep being pushed out and it is not having the desired outcomes in the way of being able to manage that land. But it would seem that development is kicking along really quickly.

Mr TODD: So a couple of things there. The VAGO report and the government's response and DELWP's response are available publicly, but we can certainly provide them. That is fine. In terms of the commitment, the program itself has always been extended out to 2050 to 2060 because that really is the extent of the urban development within the urban growth boundary of Melbourne. But the comments you make about needing to secure the western grassland reserve as soon as possible to ensure its management are true, and that is what our objective is. DELWP publishes annual reports on the rate of acquisition of the western grassland reserve. They are publicly available and show the increase in the land purchased and being managed by Parks Victoria over time. Obviously part of that is, as I said, we are working towards the acquisition of a number of larger

properties within the reserve currently, and we are hopeful that we can complete those in the next 12 to 18 months and make a significant contribution to progress on the reserve itself.

Dr CUMMING: I guess the DELWP recommendations as well as your reporting on your progress would be helpful to this committee.

Mr TODD: We would be happy to point the secretariat to where they can find those documents. Thank you.

The CHAIR: Thanks. Before I throw to Mrs McArthur, just on that VAGO report, I have read that and I think I looked at your response. But could you just clarify for the committee: are there any federal regulatory or legislative problems that add to how DELWP is able to collect development contributions in this area? I cannot remember which agency made some kind of comment in regard to some impediments in their response. Are you able to expand on that just quickly?

Mr TODD: The Melbourne strategic assessment is an approval under the federal *Environment Protection and Biodiversity Conservation Act*, so that is essentially the head of power if you like in terms of the whole program. When we talk about it being an offset program, it is essentially a large offset program that both meets the requirements of the federal Act as well as state legislation, so there are efficiencies, streamlining and gains in that sense. If I am getting your question right, Chair, I do not think there are any particular impediments to how we have set that up. It is now enshrined in Victorian state legislation in terms of the ability to collect levies from developers according to the methodologies, and it allows for those levies to be increased, partly through CPI but also to reflect the increase in land purchase and land management costs over time.

The CHAIR: Okay, great. Thanks. Mrs McArthur.

Mrs McARTHUR: Thank you, Chair. Over 40 farmers gave up virtually 33 kilometres of land to create the Myrmiong biolink. Thousands of people participated in planting hundreds of thousands of trees. This is a biolink to connect the Lerderderg State Park to the Werribee Gorge State Park. But this particular biolink, of course, is under threat because of the Western Victoria transmission project. When you talk about 'help or hurt nature', wouldn't this be a case of hurting nature, when farmers and volunteers have tried to help nature? What would be your position on the transmission line cutting a swathe through this biolink, where the trees have to be cut back to about 3 metres in height? That is my first question, and I have a second one.

Ms JACKSON: Mrs McArthur, thank you for your question. If I can make a couple of comments, I will take the question on notice as it is probably one that needs to be answered by the energy area of the department. I will say that there is a rigorous environmental process that will occur for that transmission project, and that will be looking at environmental impacts as well as range of others. So I do not have the specifics that you have referred to in your question, and I am happy to take that question on notice and DELWP can provide a response that picks up, I guess, commentary from the energy area of the department, which is responsible for overseeing that project particularly. It can also pick up a response from our planning area in regard to the environment effects statement type of process and also from our area if there are particular environmental concerns or questions that you have noted there. So I will take that one on notice.

Mrs McARTHUR: Okay. And while you are on that, you might ask them to comment on the effects of that project as it would affect the Lerderderg State Park and as it would affect the Merrimu Reservoir, where firefighting would be inhibited because of the inability to collect water from the reservoir to put out fires in Lerderderg State Park and in the Darley housing area.

Secondly, I wonder why you seem to have an ideological objection to roadside grazing, which clearly presents an obvious solution to fire wicks, which are a major issue in bushfires. In my area the St Patrick's Day fires were caused by roadside vegetation being totally out of control. The Princes Highway where the fire was rampant is now a forest right to the edge of the road, and yet you cannot slash or burn in many of these areas. But in many roadside areas, especially where local [Zoom dropout] they cannot afford to slash or burn—even if they were allowed to—much of their local road area because of your restrictions. Wouldn't it be a very viable alternative to burning, creating air pollutants that you have told us about, but also to ensure we have safer communities?

The CHAIR: Sorry, Mrs McArthur, what is your question? Could you please repeat, just succinctly, what is your question.

Mrs McARTHUR: Thank you, Chair. My question is: why do you not encourage, let alone actually inhibit, roadside grazing in many areas in rural Victoria, which is a major way of preventing fire and alleviates the need for the burning that you talk about?

Ms JACKSON: Thank you, Mrs McArthur, for your question. I will ask Hamish Webb to comment at a high level. We may need to take your question regarding the grazing aspect on notice and come back to you, but I will see if Hamish Webb has any comments that he wanted to add.

Mr WEBB: Yes, happy to. And thank you for your question, Mrs McArthur. Roadside management and broader public land management beyond state forest and national park as well as private land management was a focus of the inspector-general for emergency management's phase 1 review in 2019–20 of the bushfires, and the government has committed to more roadside and bringing the likes of the Department of Transport, so that covers, I think they are now called, Regional Roads Victoria as well as VicTrack, the railway network, into that as well, as well as supporting local government as a road manager as well to identify where bushfire risk needs to be treated on the roadsides. So that is a commitment, and there is funding that has been provided in the last two budgets to support that.

In terms of grazing, grazing is part of the program in terms of the fuel management program recognised in certain areas, in the right areas, to manage fuel loads. In terms of particulars around grazing on roadsides, it is a little bit more of a complex regulatory space which I think local government regulates too, so I could not talk to the specifics of the examples you have used in the west, but I do note there is a process that needs to be gone through to enable and allow that to happen. But from the bushfire side of things, we look at all of that, and we look at where roads might be contributing from an ignition point of view, because there is obviously a lot of accidental and deliberate lights along roadsides. So we do look at that and work with the road managers to manage that, but in terms of particular barriers to grazing on roadsides, we would have to come back on that with a question on notice.

Mrs McARTHUR: Okay. A final question. Can you tell me: on what basis do you base your methodology of assessing the numbers of wild horses that you think need eradicating?

Ms JACKSON: Thank you, Mrs McArthur, for the question. I will hand over to Dr Norman from Parks Victoria to answer this question, please.

Dr NORMAN: Sorry, on that one. Thank you, Mrs McArthur. I am happy to supply the document that outlines the methodology used. It is a standardised method of aerial observers flying over a set grid over the entire Australian Alps. It is been a collaboration between New South Wales, ACT and Victoria for many years. Every five years it has been a major survey with a set grid of flight path and experienced observers. They observe the numbers of horses seen within those flight paths, and they do complex modelling with assistance from CSIRO, St Andrews University in the UK and Australian university researchers to estimate the proportion that may not have been visible because of canopy cover, and it is comparative year by year.

So the same method has been used over multiple years, and it has shown the numbers to radically increase. So they went from, in Victoria, an estimate of 2350 to an estimate of 5000 in a five-year period, and similarly in New South Wales it was 7000 through to, by memory, 19 000. The total was much larger over a five-year period, and this is demonstrated in what we are seeing on the ground—large numbers of horses seen in plain areas. There are areas in Kosciuszko with 700 horses seen on one treeless plain region. So we use that as an indicator of scale of horse numbers, and it is clear that those numbers are in the thousands, and the damage caused by those horses is very evident. So I have been reviewing sites since the fires, burnt and unburnt patches of where horses are, and I am happy to supply the panel with imagery of the extreme damage being caused by horses on these sensitive alpine environments.

Mrs McARTHUR: Horses, as compared to goats, pigs, deer?

Dr NORMAN: Yes, absolutely. At a place like Cowombat Flat, where the Murray River bubbles out of the ground as a spring, the evidence of horse is everywhere. All the water bodies have major horse pugging. There is poo everywhere. There are wallows everywhere. The grass is down to half a millimetre. The only patches that have vegetation are fenced enclosures where the grass is up to your chest and the deer and the rabbits can get into those. There are no pigs active in that area, and the only places we heard frogs like the Dendy's toadlet were in these tiny squares of fenced patches where remaining moss and native grasses hung on. It is very clear

that it is horses pressuring those systems. The same with other treeless plains right across the alps. That is a year on from the fires. In burnt areas the damage is obvious. In unburnt areas the pressures are concentrated because there is less available area for those endangered and threatened species, and the horse damage is clearly evident.

Now, there is a control program going on for all the species—for deer, pigs, goats. We do not have a goat issue in the upper alpine areas. We have eradicated the last of the feral cattle from the Upper Snowy. We have a pig problem up there, but that is not in a horse-impacted area. The scale of the deer control has been very successful and is in the thousands of deer removed from really critical environments right across the burnt areas and across the alps. So we are not singling out a single species. It is evident where it is horse damage and it is evident where it is deer damage, and we can discriminate the two—and pig and goat. But I am happy to supply the methodology for the aerial surveys and provide that to the panel.

Mrs McARTHUR: That would be helpful, because it is disputed.

Dr NORMAN: Well, I would be interested in where it is disputed and the basis of that dispute. That is why we shared it with CSIRO and St Andrews University in Scotland, which is the world expert in estimating large herbivore numbers from aerial surveys. That is why we get independent expert advice.

Mrs McARTHUR: This did not seem to be a problem when there were mountain cattlemen and mountain cattle grazing. They did keep the horse population under control.

Dr NORMAN: By actively shooting the horses, yes, but also the other problem is that it goes back to that question: is that activity helping or hurting nature? And grazing was clearly demonstrated to impact these very restricted alpine species and ecosystems—0.3 per cent of the Australian mainland—which could not be suffering from climate change more. Cattle and horses are inappropriate in these ecosystems.

Mrs McARTHUR: They certainly will not be helped with the extensive bushfires that we have had recently because of the poor management—

The CHAIR: Sorry, Mrs McArthur. I will take that as a statement, but we will have to move on. I would just like to thank all witnesses for your contribution today. It has been a fantastic presentation. I think, as was said, this is a really large issue. It is a complex issue, and I am really grateful to all of you for giving your evidence today. So, with that, if all broadcast and Hansard equipment could be turned off. I thank witnesses for attending today.

Witnesses withdrew.