

ENVIRONMENT, NATURAL RESOURCES AND REGIONAL DEVELOPMENT COMMITTEE

Inquiry into the control of invasive animals on Crown land

Melbourne — 5 September 2016

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Witnesses

Ms Nina Cullen, executive director, biodiversity division, and

Ms Kate McArthur, senior policy officer, biodiversity division, Department of Environment, Land, Water and Planning.

The CHAIR — Welcome to the Environment, Natural Resources and Regional Development Committee’s public hearing on the inquiry into the control of invasive animals on Crown land. I have just a couple of preliminaries before we hand over to you for your presentation. The committee is hearing evidence today. All evidence given will be made public. We will provide the transcript to you prior to it becoming public so that you can check for any inaccuracies or deficiencies. Also, all evidence taken today is taken under parliamentary privilege, but of course that same information if discussed outside this hearing is not necessarily covered by parliamentary privilege, so I just have to let you know that.

Thank you once again for coming in. My understanding is that the secretariat would have advised you that you can give a brief presentation for around 10 minutes. Then that allows plenty of time for the committee to ask you questions. We also note that we do not have your submission as yet, and we understand the various reasons for that. That is fine, but it just may mean that we might ask you to come back again at a later date. Just for the record, I ask that you give your name and title.

Visual presentation.

Ms CULLEN — Thank you all, and thank you for the opportunity to provide information to the inquiry. My name is Nina Cullen, and I am the executive director of the biodiversity division in the Department of Environment, Land, Water and Planning.

Ms McARTHUR — My name is Kate McArthur. I am a representative of the Department of Environment, Land, Water and Planning. I am the department’s senior policy officer for invasive species.

Ms CULLEN — First, we acknowledge that the terms of reference of the inquiry focus on the benefits of the use of community hunting organisations and individuals in the control of invasive animals on Crown land, and as part of our understanding of that the committee is seeking DELWP’s views on the extent of the problem and how it can be addressed. In responding to the terms of reference today, I would like to present a brief summary of the impacts of invasive animals on Crown land and the extent of the problem and currently agreed government policy for managing invasive animals on Crown land.

DELWP and the Department of Economic Development, Jobs, Transport and Resources, together with Parks Victoria, have all worked and do work in close partnership on the control of invasive animals on Crown land. The three agencies have developed a joint submission to the inquiry, and it is continuing to go through relevant approval processes. We expect it to reach the committee shortly, but we note the comment that we may return.

We also understand that Parks Victoria, which is an organisation that undertakes a significant amount of on-ground pest animal control on Crown land, will also be presenting next Monday as well. That is our background. In short, as a key starting platform, the Department of Environment, Land, Water and Planning is committed to reducing the impact of invasive animals on assets of importance to all Victorians. We do that through two key platforms, one of which is direct action to protect vulnerable native plants or animals in parks and forests, and one is through supporting community action on private land adjoining Crown land where invasive animals impact on productivity and other value.

By way of background, one third of Victoria is Crown land. This includes the seabed and coastal waters 3 nautical miles off Victoria’s coastline. The department is responsible for setting state-based policy for the sustainable, effective and efficient management of Crown land, and Parks Victoria manages parks, reserves and other land under the control of the Crown.

To define invasive animals, in Victoria an invasive species is defined as a species occurring beyond its accepted normal distribution and which threatens valued environmental, agricultural or other social resources by the damage it causes. Invasive animals can be terrestrial or aquatic. Invasive animals of concern to Victoria are often but not always declared as pest animals under the Catchment and Land Protection Act 1994. Some invasive animals, such as feral cats and some species of deer, are not declared pest animals. This does not necessarily, however, mean that they cannot be subject to controlled operations. Invasive animals of concern on Crown land include introduced predators, such as wild dogs, foxes and feral cats; large herbivores, such as goats, feral cattle, feral horses and deer; omnivores, such as

feral pigs; and graziers, such as rabbits. Invasive aquatic species, such as the northern Pacific seastar, are also a significant management issue.

Introduced animals competing with or preying on native animals are a primary cause of biodiversity decline. After habitat loss, predation by introduced species, mostly foxes and feral cats, is regarded as being the major threat to endangered terrestrial native animals. Introduced herbivores, such as rabbits, goats and deer, can significantly damage native vegetation and soils through trampling and digging and can cause localised extinctions of plant populations through overgrazing. On agricultural land, impacts of invasive animals include predation of livestock, competition for resources and destruction of pastures and crops. Invasive animals also confer direct control and management costs.

It can be challenging to identify or to quantify the extent of the spread of invasive animals across Crown land. While no comprehensive data is available on the distribution and density of invasive animals across the state, valuable data collected through research, management programs, citizen science and anecdotal evidence gives Crown land managers a platform from which to reliably model the distribution of a range of species. We can deduce from the information I have just mentioned that some invasive animals, such as the European rabbit and the red fox, have reached their likely extent in Victoria. Other species, such as feral goats and feral pigs, are still expanding into new areas. Understandably this therefore creates ongoing investment challenges.

The Victorian government principally invests in invasive animal management on Crown land for either the protection of key natural values — that is, biodiversity asset protection — and also for good neighbour reasons and principles, which is to reduce the impact of invasive animals on adjoining private land. For information, there are 66 000 kilometres of interface between Crown land and private land in Victoria. Best practice in basic species management utilises humane, strategic and targeted approaches aimed at achieving enduring, cost-effective outcomes. Unless well planned and coordinated at a relevant spatial and temporal scale, efforts are unlikely to achieve long-term control.

DELWP recognises that the use of accredited volunteer shooters will contribute to positive biodiversity outcomes, and where the contribution is managed in a strategic, systematic way and is integrated with other management actions, this is primarily the opportunity that can emerge. Parks Victoria has worked with volunteer shooters in the parks and conservation estate and will be able to further speak to this point at their presentation to the inquiry.

The principles for the government's current investment in invasive animal control on Crown land to achieve biodiversity protection outcomes have been developed, tested and refined over the past decade. Government investment is predicated on a number of principles. The preliminary and essential one is around applying a cost-effective biodiversity approach. This means that government uses an understanding of each invasive species' stage of invasion to target the most effective management response. By this I mean whether the species is at the stage where prevention is useful, eradication is a possibility or containment, or whether we have moved on to the need to concentrate on asset protection.

The cost-effectiveness of taking action tends to decline progressively as the invasive species moves towards becoming more established. With an understanding of the invasion stage, managers can assess the species' relative risk to the environment, agriculture or the community and select the most appropriate intervention. This risk management cost-benefit approach is applied in Victoria to help ensure planned action maximises the return on investment.

As part of informing the invasive species management we consider the following: one, that the approach is asset based, meaning Crown land managers intervene to control invasive animals among a range of threats to the values they are protecting. Contemporary approaches to invasive animal control recognise the importance of focusing on the values being protected and what is needed for those as the key measure of success rather than a reduction in pest numbers on its own.

Another essential principle is considering a strategic and targeted approach. Crown land managers seek to direct investment into areas of high value where we can achieve strong benefits for the level of investment.

Another approach and a relevant principle to consider is landscape scale. Invasive animal programs are planned and delivered at the most appropriate spatial and temporal scale to best protect the asset being considered. This often requires a nil tenure collaboration across a range of stakeholders.

Evidence-based decision-making and adaptive management is also a critical principle. The best information possible and decision support tools to help navigate and solve complex problems and refine management approaches is the approach that is factored in and used at all times.

The last one, as a general principle, is around collaborative management, recognising the approach presupposes that common planning, standardised monitoring and reporting and ongoing communication between relevant land managers provides a better ongoing outcome.

The current approach that I have described using the range of those principles to determine investment ensures the best cost-benefit for level of investment that is being provided. Thank you.

The CHAIR — Thanks very much. You may not know this off the top of your head, but what is the budget for the resources that are spent on controlling invasive animal programs?

Ms CULLEN — The budget that we apply is around invasive species management. It is not necessarily split between animals and weeds, for example. But in general we do invest more than \$7 million within the DELWP portfolio, and additional money is also provided to Parks Victoria for their invasive and animal management control.

The CHAIR — Okay. Just going on then from that, when you said there is a certain amount allocated for Parks Victoria, what are the lines of demarcation or responsibility between the various departments? In a previous inquiry one of the issues that came up was that everyone had responsibilities but no-one took responsibility and there was this constant sort of buck passing. I am not saying that you are doing that, but how does it sort of work in terms of the areas of responsibility?

Ms CULLEN — Parks Victoria is responsible for the operational management of threats and biodiversity outcomes on the parks and nature conservation estate, and they therefore lead, develop and manage a raft of programs on the parks estate and conservation estate with respect to invasive animal control. DELWP is the portfolio agency, and it has a financial relationship with Parks Victoria. Parks Victoria has responsibility and takes a very strong lead in managing invasive animal matters on the parks estate. DELWP certainly is responsible for managing invasive species on the state forest estate and various other parts of Crown land.

The CHAIR — So is it one plan, one program, or — —

Ms CULLEN — That depends on the area, the place and the issue — the actual animal that is causing the issue. There are a number of programs that have been run, and many of those are across tenure. Some of them are shared between Parks Victoria and DELWP. Some of them are Parks Victoria led. Some of them are Parks Victoria and other parts of the community et cetera. It depends a little bit on the plant or the animal that is being protected and where it is located. It might purely be on a national park or something like that or it may be across different tenures, and at those times a program is worked up that is going to be best suited to manage that invasive animal or to best protect that value that has been identified as most vulnerable.

The CHAIR — Okay, and then when it gets onto the private land or that interface — I think that we have had a number of submissions where landholders are saying that the problem is in the state park or the Crown land or whatever it is, and then it sort of flows out onto their property. Is that again managed in a sort of an overall way or is it in bits?

Ms CULLEN — Again it does depend on the particular program and the pest that is causing the impact. There are processes and protocols and standing operating procedures that work across the different tenures. In some circumstances they are more agency specific. I can come back to the inquiry with little bit

more information around that, but it is principally about providing the opportunity to assist those private landowners to manage that pest as it creates a problem on their productivity values et cetera.

The CHAIR — Perhaps to get a bit more of an understanding of that you could send us some stats.

Ms CULLEN — Yes.

Mr YOUNG — Thank you for your presentation. Some of these questions that I have may not be able to be answered by you, at least maybe not the moment, but are you able to provide us with some data or documentation on what professional pest control you have employed, what that has been for and what the cost has been on that, and also around the costs of other invasive species controls that you have used?

Ms CULLEN — Can I clarify the question? I am not sure that I have heard the question accurately.

Mr YOUNG — When I say professional contracting, I mean to shoot invasive species. Mostly we are talking about deer, but there are a range of others that your department would come across as far as other controls — the use of poisons and baiting and things like that.

Ms CULLEN — We can provide some general data to that effect. I feel that might be the most useful off the top my head — identifying the costs of the different management actions. But quite often a management program will involve a raft of actions, so it may not be as detailed as x amount of money for one type of management action. It is about creating a program to address the impact of that invasive animal.

Mr YOUNG — Yes. That does lead on to another question I have. Has any work been done around an actual cost-benefit analysis, whether you are getting an actual return on those investments and on what type of program is more effective as far as a cost benefit?

Ms CULLEN — That is part of the approach in any management program that we run, and there is always an evaluation part of that too, which then feeds into the next program development and learnings from that. I think also the department, and government generally, is always open to learn from new evidence that comes in through new trials, and that is what will continue to happen.

Mr YOUNG — On a different topic, what is your relationship with the GMA as far as a legislative relationship? How do you tie into each other?

Ms CULLEN — The department works closely with the Game Management Authority. We have various joint responsibilities under legislation. The GMA is the regulator for game and the department has a raft of responsibilities with respect to land management as it is generally the government's representative for land management. But the two groups work collaboratively in setting up the right programs, systems and processes around, I guess, the hunting operations that GMA is responsible for regulating.

Mr YOUNG — And does the department supply the GMA with instruction?

Ms CULLEN — Not to my knowledge, no.

Mr YOUNG — And what is the relationship between the GMA? Are there good lines of communication? Is it working?

Ms CULLEN — It is open communication. My experience to date is that — I am relatively new to this role, but my experience in witnessing from conversations between officers is that it is open communication and good shared communication and information.

Mr YOUNG — No worries. Thank you.

Mr RAMSAY — I was wondering if I could ask Kate a question in relation to policy. I am interested to know how you developed policy for responding to an increase in a species that has become almost a pest. Wild dogs — it has taken the government some time to introduce its aerial baiting program, after some

encouragement by other stakeholders. You scrapped the fox bounty because you did not actually believe it was reducing the number of foxes in Victoria, and we have an emerging sambar deer problem. So when you developed a remote policy what actions and strategies did you put in place in relation to dealing with, say, sambar deer as an emerging species problem?

Ms McARTHUR — As Nina mentioned, one of the key platforms to inform our response to a given species is this risk-based approach; that is often called this ‘biosecurity approach’. It is built on this understanding of where the species is in its invasion cycle, for instance. So you quite rightly mentioned, and Nina mentioned, that while some species are expanding in their range — some are even relatively new to the state — there are others that are widespread. As Nina said, some — like foxes, for instance, and rabbits — we consider to be everywhere they are going to be in Victoria. So a deep understanding of that is the first piece of information we use to inform our management response.

When you start to consider established species, in the early stages of invasion the policy is around a species-led approach, so where things are preventable or eradicable, or even containable, we look at focusing on just that species — objectives for that species. When we move into established species it changes to an acknowledgement that we cannot do everything everywhere, and so we need to better understand the impact that that widespread species is having on the values that we are trying to protect. The wild dog program is a really good example of how quite recently, over the last few years, it has moved towards an understanding of what we need to best protect livestock, for instance. Foxes is another widespread species where we apply the same outcome focus, but in that case on Crown land we are looking at what biodiversity foxes are impacting on, and that informs our management response.

Mr RAMSAY — So what is the policy on sambar deer — from the department’s management?

Ms CULLEN — Sambar deer is an emerging and relatively new — newer than others — invasive animal issue, and I guess it is fair to say at this point in time that the government recognises that it is an issue, it is an emerging issue and we are working collaboratively with all the different government agencies to look at what needs to be done for sambar and other deer populations.

Mr RAMSAY — So there is not a policy as such in managing — —

Ms CULLEN — Not specifically for sambar at this point in time, but it is recognised as an emerging and necessarily invasive animal to be considered and looked at from a pest management or animal management perspective.

Ms WARD — From the perspective, for example, of my seat, where we are an outer suburban seat and have significant issues with foxes and with rabbits, what do you consider to be the best, most effective means of dealing with invasive species such as these, like rabbits, cats, dogs and foxes?

Ms CULLEN — Are you talking about the peri-urban area or just — —

Ms WARD — In general; peri-urban would be good — that is mine — but in broad terms across the state as well.

Ms CULLEN — I guess the department and the government have a range of initiatives already in play and in operation to manage a range of those invasive animals. It depends a little bit on the place as to which program is operating and which program is running. It does generally involve a mix of measures, whether it be something like baiting or some other mechanism that is used for invasive animal control. So it does depend on the place and the program that has been designed.

Ms WARD — So is it difficult to qualify then what is the most effective method, because it is so specific to species, environment and a number of other factors?

Ms CULLEN — Yes. In short, yes, there is no one solution for every plant or animal that you are trying to protect or every invasive animal that is having an impact on Crown land.

Ms WARD — Is there any particular method that has been employed or that is currently being employed that you could say is not effective?

Ms CULLEN — I do not have that information currently available. I am not aware of anything, but we have certainly learnt over many years of pest management control of techniques that do work.

Ms WARD — Can you highlight those ones?

Ms McARTHUR — I think the answer to that question in part lies not so much with what technique did not work but how to apply it. Over that course of the 10 years that Nina mentioned in her presentation, where we have refined, tried, tested, learnt and developed sort of a series of principles about how to do these things, we have really learnt what works best to achieve the outcome that you are trying to achieve in a given situation. It is really true that there is no one-size-fits-all because things vary so much depending on where you are working and what your objectives are, and that is particularly true for the peri-urban and the urban environment, where other factors come into play that limit not only what you can use but how you can use it for other factors that do not include biodiversity outcomes, for instance, safety, such as the use of firearms and things.

It is true that over time, while I cannot give an answer about what definitively works, we do have a very good understanding of how, and that is what Nina was talking about — things like strategic and targeted, and a really clear understanding of what you are trying to achieve. That is sort of where we have evolved with contemporary approaches.

Ms WARD — In your written submission to us, will there be more information around what is working?

Ms CULLEN — Yes. I think that the focus of the submission is around approaches, and we have given you quite a few really good case studies about what is working really well.

Mr RICHARDSON — Thank you. Sorry we were a bit late coming in at the end in between lunch.

Ms CULLEN — That is okay.

Mr RICHARDSON — I just have a couple of questions going towards classifications of deer in particular. What are the practical ramifications of particular species of deer being declared pests as opposed to game? Can you give us a bit of an overview on that? Does that trigger any — —

Ms CULLEN — Yes, it is a very topical matter. Different interest groups have different understandings, approaches and views as to what the implications would be if you declared certain deer to be pest or not. The most common and widespread species of deer in Victoria are listed as game and therefore protected under the Wildlife Act, and under that act it is an offence to take or kill protected wildlife without an authorisation to do so. Therefore Crown land managers do require an Authority to Control Wildlife permit before undertaking deer control. If I understand you correctly, you are asking what are the relevant merits or otherwise of declaring them — —

Mr RICHARDSON — Yes. Does it change anything in particular in terms of managing their numbers?

Ms CULLEN — The critical matter for managing animals on Crown land is the impact that they are having on the biodiversity values. That is the critical matter. I am struggling with how best to answer. As mentioned earlier in the presentation, not declaring something as a pest does not mean you cannot take control action. You can. There is the ability and capacity to do so. However, declaring it as a pest does not necessarily entail that it then impacts on the numbers other than what is trying to be achieved as part of an invasive animal control program.

Mr RICHARDSON — Obviously there are well-established species that are pests that are well established and — the information there is to the extent of coverage in Victoria — hit that threshold as

well. I am interested in that debate around whether there is a practical outcome that is achieved or whether we are talking about semantics rather than the outcomes of how we reduce the population and focus on the economic and social issues rather than a debate around classifications.

Just to that point, I am keen to get some overview on the department's view on recreational hunting as a means for reducing the numbers and how effective that is in the longer term. There is a suggestion that there are in the tens of thousands that are being reduced through recreational hunting. A couple of committee members had the opportunity to travel to north-east Victoria and listen to representatives from Agriculture Victoria that were saying that the numbers are actually in the hundreds of thousands, if not coming towards a million. What are some of the other strategies, and where is recreational hunting's role in those efforts?

Ms CULLEN — I think as I mentioned in the presentation, recreational hunting and hunting through accredited organisations — or shooters — has the opportunity to provide an important role for achieving biodiversity outcomes. It is fair to say that we have the opportunity to learn from some of the trials that Parks Victoria is currently running, and that information will be critical to informing future pest animal management programs.

One of the principles that we discussed was the value of looking at a strategic and landscape-based approach, looking at a spatial and temporal design, and part of the rationale there is ensuring that investment is going to achieve benefit for the values that are at risk. At times the ability to do that will require a raft of management actions, and ad hoc or other types of hunting may not necessarily exert sufficient pressure on the invasive animal population to actually deliver a meaningful long-term biodiversity outcome. That is part of the rationale for explaining the need for a mix of management options and having shooting as a potential part of that strategic mix of management actions.

Mr TILLEY — Just going on from that, what evidence is that based on?

Ms CULLEN — My understanding is that it is based on significant years of working with different invasive species over time and knowing the approach for managing the needs of the species. Most vulnerable plants and animals that are being protected require looking at those needs and those species and the raft of actions that are necessary to protect them. So it is based on, I guess, a history of multiple management actions achieving the benefit for the values that are being sought to be protected.

The CHAIR — Have there been any evaluations done on the current trials that are taking place, say, in the Dandenongs or other places, or not yet?

Ms CULLEN — That is in progress, yes.

The CHAIR — They have not finished an evaluation? Just a yes or no is fine, or not sure or that you will take it on notice. All those things are fine.

Ms McARTHUR — I think that potentially, if I may say so, is probably a good question to ask Parks Victoria when they come. I mean, I could probably offer — —

The CHAIR — If you do not know something, that is fine. There are a million priorities within the department or whatever.

Ms McARTHUR — It is a really good question and I think it is probably best to ask them.

The CHAIR — Good. Thank you.

Mr TILLEY — Thanks, ladies. We have gone all right this afternoon, considering we have not got a submission from the department yet. A lot of what we have discussed this afternoon, would it be fair or accurate to say, is all part of the submission that we are waiting for a sign-off on or something similar?

Ms CULLEN — A lot of what we had discussed today does form part of the submission. A lot of what I have discussed today reflects the current approach towards invasive animal control on Crown land.

Mr TILLEY — What is the view of the department? We are talking about deer as an emerging issue. We have got wild dogs, foxes, cats, pigs — we have got all kinds. In the view of the department, what is the highest risk in the state of Victoria?

Ms CULLEN — There is not a single simple answer to that. All of those species have significant impacts on Crown land, and it is about working out the priorities of investment based on the values that we are trying to protect, how important they are, how vulnerable they are and also the relative impact of the different species.

Mr TILLEY — So as far as the taxpayers are concerned there is about \$7 million annually for invasive species, and that is about it?

Ms CULLEN — There is additional money across the different tenures. It is an important matter.

Mr TILLEY — I have just got to try and work it out. On some of the datasets, we have some evidence from other witnesses — from the Invasive Species Council — that have got included in some of our briefing papers. Are you familiar with a map that looks something like that? This has been submitted from the National Parks Association. We have been told also that there is potentially some government data. Can you impart to the committee what data that comes from or how it has been — —

The CHAIR — Maybe for the record, do we know where that actually comes from, because it is not written on there? Just for the transcript, so that we understand what it actually is.

Ms McARTHUR — No, I cannot really verify the source of that map. I do not think it is one of ours.

Ms CULLEN — There are no date details on the map.

Mr TILLEY — We are trying to get some data and establish really the claims of proliferation of different species of deer and where it has been identified and located. With these claims that are going around, all the stories, the jungle drums and the Chinese whispers, we want to get some clarity around exactly what is going on. Hopefully the submission will have some better data and tell us how the department has gone about capturing that data. Hopefully that will form part of the submission. If not, could it be included?

Going on to shooting pursuits in particular when we are talking about invasive species, there are seasonal permits for going into national park. If you have got specifically a hunting permit to hunt deer and you see a wild dog, you cannot shoot it. You cannot shoot a wild dog. What I am getting at is: is there any appetite or any advice that has been provided to government? Claims are being made that there are significant invasive species that have caused problems to our biodiversity in our environment, yet we are in a quandary with regulation and legislation. Is there any appetite in the department in any of the conversations about where you have a legally permitted hunter or shooter in the field to change some of this legislation that would address only one small part of all the shooting issues we are currently experiencing, as recreational shooters in legitimate, legal hunting and shooting pursuits?

Ms CULLEN — At this point in time approximately, from what I understand, 50 per cent of Crown land is available to shooting. As you would appreciate, public land is managed for a raft of different uses, and the legislation at this point in time recognises that and provides that as an objective. Therefore the mechanisms that are currently in place serve the purpose of managing for those multiple uses in a safe — —

Ms WARD — But if you are shooting a deer, for example — if you are out there shooting a deer and there is a feral cat, you are not allowed to shoot that cat. I think Bill's question is: what, if anything, can we think about or put in place, and if you are not already doing that, to consider how other pests could be removed at the same time, as an opportunistic event.

Ms CULLEN — I note the comments. At this point in time the legislation does not provide for that.

Mr TILLEY — So is there an appetite, or is the department prepared to provide that to government? Is there any — —

The CHAIR — Maybe that is our job in terms of recommendations, Bill.

Mr TILLEY — We might make that recommendation, I think. Thanks. All right. In the fairness of time — obviously we will get you back at some stage — I think we will cover it. I look forward to reading the submission when it becomes available.

Ms CULLEN — Thank you.

Mr TILLEY — No, thank you. There were no tricks there.

The CHAIR — Thanks very much, and we look forward to seeing you again and receiving your submission.

Witnesses withdrew.