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THE LEGISLATIVE COUNCIL GOVERNMENT ADMINISTRATION A COMMITTEE MET IN COMMITTEE ROOM 2, PARLIAMENT HOUSE, HOBART ON TUESDAY, 29 NOVEMBER 2016.

WILD FALLOW DEER POPULATION

Mr BEN GOODSIR, DIRECTOR, POLICY AND PROJECTS, NATURAL AND CULTURAL HERITAGE; AND **Mr GREGORY JAMES HOCKING**, PRINCIPAL WILDLIFE MANAGEMENT OFFICER, DEPARTMENT OF PRIMARY INDUSTRIES, PARKS, WATER AND ENVIRONMENT, WERE CALLED, MADE THE STATUTORY DECLARATION AND WERE EXAMINED.

CHAIR (Mr Armstrong) - Welcome to the public hearing today. All evidence given in this hearing is protected by parliamentary privilege. Any comments you make outside the hearing may not be afforded such privilege. The evidence you present is being recorded and the *Hansard* version will be published on the committee website when it becomes available.

Mr GOODSIR - I am a recent appointment. I have only been there several weeks, so this is a new area to me. I have been in the department for many years, but in a different area, also managing natural resources. I am familiar with the general natural resource management approach, but this area is new. Greg Hocking is leader of Wildlife Management Services in the division. He has decades of experience in this area and knows it inside out. He has been involved in many aspects for many years.

The department welcomes the opportunity to appear before the committee. We are primarily here to explain the legislative and policy framework that applies in Tasmania for managing wild fallow deer and to provide any information that can assist the committee to examine its terms of reference. The department has provided a submission which broadly outlines these matters. As you have no doubt noticed, the submission attempts to address the inquiry's terms of reference with facts and figures which aim to provide relevant information in relation to the environmental impacts of deer on public and private land, impacts on commercial activities on private land, and the commercial opportunities for use of wild population stock. We are happy to take any questions on the submission or the department's role and responsibility in managing wild deer and/or the existing legislative framework we operate within.

We are assuming you have had the opportunity to read our submission, so we are not going to summarise it and waste your time. However, we want to emphasise a couple of matters before we get into questions. First, the legislative framework is somewhat complicated. The framework is based on the Nature Conservation Act 2002, which makes provisions for wildlife general regulations and wildlife deer farming regulations. This framework provides for the regulation and management of deer farming and also the management of hunting and taking of wild deer. Furthermore, the regulations prescribe many actions and behaviours, such as the method that may be used to take deer and the number and type of deer that may be taken. Within this framework sits a range of other instruments such as licences, permits, property-based wildlife management plans, open hunting seasons et cetera, which are all used to manage deer in Tasmania. It is complicated and takes a while to get to know it but when you do there is some logic in the whole

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framework. As you are probably aware, managing wild deer in Tasmania is a complex area of public policy, with many divergent views across the community.

Finally, I highlight that the broad legislative framework has been developed over many decades and supported by successive Tasmanian governments. In general, the framework has been broadly designed with the objective of managing deer populations as a resource, whilst at the same time aiming to minimise the impacts on crop and natural values.

That is a high-level summary of what that framework provides and we are happy to take any questions.

CHAIR - You said it is a complex process. Has there been any work done on streamlining that process because we heard in Campbell Town that it was a very complicated process?

Mr GOODSIR - I wasn't necessarily meaning that all the processes are complex. I think the framework is complicated. If you sat down and looked at the act and the regulations and fitted it all together, that can be quite complicated. In terms of the process, there are some issues that have been managed over time, and some of them have been put in place recently. One of the recent changes is to do with crop protection permits. Part of the process that was implemented as a recent amendment was to increase the amount of time that a permit is live. So going from an annual permit to a five-year permit was all about ensuring that the process is simplified, is streamlined, but still provides the same purpose in terms of requiring a permit and collecting information from the various people that require a permit.

CHAIR - Could we get a copy of the blank permits?

Mr GOODSIR - That is not a problem. We have many permits so we can provide a copy with all the permits that relate to wild deer farming and management.

Ms RATTRAY - In regard to the permit, we heard from one witness that you could call and get a permit over the phone. Then we heard from another witness that the paperwork was quite cumbersome. Can you call on the phone and get a permit? Is it necessary to have to have a written application? I want to understand the process.

Mr HOCKING - The regulations do require a written application for permits. We endeavour to make that as easy a process as possible for the landholder. Where a person might have an existing permit and they are extending it, it is not just a matter of extending the permit. You have to issue a new permit but we would cancel the old one and issue a new permit to allow additional time, for example, to use the tags that are already in the hand of that landholder.

Ms RATTRAY - What about an extension to the number of tags? Could that be by a telephone conversation?

Mr HOCKING - It could be by telephone conversation. We are, I think, quite realistic in this matter in endeavouring to facilitate ready access where the person receiving the application is satisfied there is a legitimate reason for whatever has been requested. We endeavour to satisfy the requirement.

Ms RATTRAY - Is the department also acknowledging that numbers have grown such a lot so there is this need to be flexible around issuing tags and access to the wild fallow deer?

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Mr HOCKING - It certainly recognises in the current environment that there is a real demand from landholders for relief from crop damage. Yes, in some areas there is an increase in deer - we accept that - but it is also driven seasonally by low rainfall, for example, which up until earlier this year resulted in deer moving out of bush areas and feeding on crops. So while the number of deer in Tasmania didn't increase in that short period, certainly the impact on -

Ms RATTRAY - Their eating habits did.

Mr HOCKING - Yes, that is right. The impact they were having on crops and pastures increased; we recognised that. For example, last year at the peak of the dry period we made male deer permits more readily available. Instead of requiring farmers to apply for adult male deer permits and immature male permits separately, we were just issuing one permit with one figure for the number of male deer that could be taken. It was well accepted by farmers as a good initiative.

Ms RATTRAY - Can I confirm you said there has not been an increase in numbers?

Mr HOCKING - No, I did not say that. I said in the longer term, yes, our surveys confirm - it gets back to our annual statewide spotlight surveys - they indicate, over the 40 years now that these surveys have been undertaken, two things. That is, an increase in the range of deer - where they are seen essentially across Tasmania - and also numbers of deer within that range. There is certainly an increase that has been going on. It is not universal. There are some areas where there has not been an increase, but overall numbers have increased over that longer period. In last year's dry period there was an increase seen in the number of deer, but that did not reflect a great increase in the number of deer in Tasmania. It was simply a movement of deer onto pastures where farmers found them more of a problem.

Ms RATTRAY - That is what I misunderstood, Greg. Thank you very much for that clarification.

Mr GAFFNEY - It seems by your paper, the survey was done by Locke in 2007, and it was the one in your paper. Is it the last major survey undertaken, even though you take surveys by sight or on a yearly basis? It seems to be a 10-year-old document telling you about the spread of deer in Tasmania, especially in the central plateau. The university has undertaken some work, or it is mentioned. Ten years is a long time to be now assessing where the deer are in Tasmania, are there plans to take a more in depth look into the spread of deer? What is the department's plan?

Mr HOCKING - The answer is, yes, we are currently looking at funding work to look at any potential spread of deer into those sensitive World Heritage areas and possible impacts of those deer on those areas, on conservation values within those areas. The department is looking at doing that. I have noted, yes, as you have that Steve Locke's work was directed at the distribution of deer within the World Heritage Area, the central plateau conservation area. It was not intended to be a statewide survey. The surveys I referred to a while ago are part of our broad scale monitoring of wallabies, possums, Tasmanian devils, quolls, and so on, around Tasmania. They are spotlight-based surveys. Coincidentally, we were recording fallow deer on those surveys. In recent times we have gone back and looked at the results of those surveys to see the emerging patterns.

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Mr GAFFNEY - Greg, when you are saying work has been undertaken, is that for a report to be done for Government or for the department? Is that to present a report to the department about the spread of deer at the moment, what is the work going to involve? Are we going to be presented a paper with facts and figures and numbers by 1 July or some certain date?

Mr HOCKING - I am not sure if it is specific to a date yet, but it intends to undertake work that will look at the spread of deer, primarily in the central plateau area - the conservation sensitive areas - and look at potential impacts of deer on those areas. I do not know if they have finalised a date for reporting. Ben, are you talking with people on that? It is hoped to take place in the next year or so. Is that correct?

Mr GOODSIR - Are you talking about research with the university?

Mr HOCKING - Yes.

Mr GOODSIR - The department and the university put together a detailed, sophisticated application for an ARC, Australian Research Council, grant to look at the numbers. They went through the process. They were unsuccessful in that bid. They are currently looking at what a scaled down version would look like. As they were unsuccessful in getting that extra resource, they are having a look at what they can do without those resources, what would be feasible and what the design of the program would be with fewer resources than the initial application. That is the process they are in at the moment, with the broad intent to have a look at the number and impact of wild deer in that World Heritage Area.

Mr GAFFNEY - Once they redefined program and scaled it down, do they have to resubmit or do they have funds set aside to do that?

Mr GOODSIR - The idea is to create a rescaled program to be done with the existing resources.

Mr GAFFNEY - You do not need any extra funding for that?

Mr GOODSIR - Yes, we have a clear indication from them. It is not one of their high priority projects. We would not be going back with a scaled down project. It would be doing it internally within existing resources.

Mr GAFFNEY - While we need to know the impact on our World Heritage Area or our protected areas, a lot of concerns we heard last week were from the farming fraternity, who may not be anywhere near those protected areas. Is the department doing any scoping work other than surveys by hunters or by farmers observing? We are trying finding out the extent of the wild deer population in Tasmania, whether it is increasing and how to manage that. Is it difficult to understand the problem you are dealing with if you do not know the numbers out there?

Mr GOODSIR - That is a fair comment. The work we have done today, which Greg mentioned and I think he wrote in the submission - or do you have some charts?

Mr HOCKING - It is the additional information provided within the submission. There are some charts, which give trends in -

Ms RATTRAY - Licence sales?

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Mr HOCKING - Yes, and also trends in numbers. We have figure 3, average number of deer per standard kilometre transect. We have 170 of those transits gathered around Tasmania. They are in standard places. If you see deer popping up in more transects, they are new to that area. They are occurring on more transects, and it is expressed in terms of percentage of transects on which deer are seen, given the number of transects has fluctuated from year to year a little bit. It smooths out some of those ups and downs there. The trend is still upward.

We are looking at detail of the individual transects on which deer are seen. A lot of new transects where deer occur have come about because of escapees from deer farms. That has been an ongoing issue. They have popped in places in the north-west. That is not a natural spread of deer from the traditional one.

Mr GAFFNEY - Do they have to be reported, if a deer farmer loses a deer?

Mr HOCKING - Yes, a requirement of deer farm regulation.

Mr GAFFNEY - Can you provide us with the numbers, over the last four years, of deer that have escaped? We heard from one of the north-west coast deer farmers last week. He manages deer and said that when one escapes he has to report it. If it is not back within 48 hours it is considered lost. He said, 'Sometimes, they come back'. Do you have the number of reports of escaped deer?

Mr HOCKING - We should be able to obtain that information.

Mr GAFFNEY - The last five years would be good, thank you.

Mr HOCKING - I will seek that information for you.

Ms RATTRAY - That is interesting. How much effort does the department do in continuing to monitor deer farms? Are there fences that continue to be suitable for the animals which they are attempting to hold? They may get bigger, taller and more athletic. The numbers will also show us how many have been escaping but does the department do any on ground works to assist the deer farms?

Mr HOCKING - The answer is yes. We give approval to operate a deer farm for a period of five years. We have had that in place for the last 10 years, since they came under the Deer Farming Regulations, which are our regulations. For a period before that they were under the Animal Farming Regulation Act which was a Primary Industries function. It is the same department now, but then we weren't. We have gone through several cycles of that. This last year we have been undertaking inspections of deer farms. Notices were sent out to those on our books who have deer, seeking an application.

Ms RATTRAY - To see if they were still farming?

Mr HOCKING - Correct. If they indicated they still had deer, we would arrange for a visit. There are over 100 deer farms.

Ms RATTRAY - Thank you, that was my next question.

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Mr HOCKING - I cannot give you the precise figure but there are in excess of 100 properties across Tasmania.

Ms RATTRAY - Who have been registered at some stage but might not necessarily be operational? All their deer may have been sold or escaped?

Mr HOCKING - That is correct. A number have indicated they no longer wish to farm deer so they will be taken off the books.

Mr FARRELL - We have heard from lots of different farmers, lots of different hunting groups, shooters, and there is a wide range of opinions about the hunting of deer. What advantage is there to the department of having deer in Tasmania? It seems you are resourcing it and managing it, so I was wondering where the department gets some advantage from having deer in Tasmania?

Mr HOCKING - We have had in place for the last 20 years a program originally termed property-based game management plans. These are plans negotiated, we facilitate them, and our staff are involved in the facilitation of them. However, they are primarily between a landholder, property owner, and hunters as to what they organise, to the extent that they hunt on that property. They define conditions for access to property and certain rights for hunters when they are on that property. They have been important within the deer range - they are most prolific within the deer range because you have something very attractive to bring hunters on to those properties, namely fallow deer. Those properties are in some demand. In order to access those properties most of those hunters would have to sign up for certain activities, work if you like, during the year, controlling other browsing wildlife, which is where the department does gain a benefit. It allows property owners to effectively manage wallabies, possums and other animals that eat crops on that property without, for example, using 1080 poison, which may be appropriate in some areas but if its use can be minimised that is great. Having deer on a particular property will assist in that process. Deer can be of benefit in that process.

Mr FARRELL - With the crown owned land different rules apply to how hunters access that. I believe some farmers lease land around their farms that is crown land?

Mr HOCKING - Yes, there would be some farmers who would do that.

Mr FARRELL - We have just heard from some hunters that are not involved in hunting groups and their argument is that sometimes access to properties is not on a fair basis. Unless you have a lot of money you cannot afford to hunt. Does the department have any views on that or is that outside the scope of your deer management?

Mr HOCKING - It is essentially a matter between the landholders and some of them will be state. I note that Forestry Tasmania have had game management plans on their properties, on large lumps of state forest, for example, where access is provided to hunt deer. If they choose to do that, that is fine. It can also be of benefit to the surrounding land holders who might want some relief from browsing animals that move from that state forest on to their private land.

Mr FARRELL - The whole deer issue is a little different because it is a species that is farmed and is wild. It seems there are some challenges with managing them in the wild and that has become apparent to us. We are trying to work through that.

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CHAIR - How much 1080 poison is used in the culling of deer, do you know?

Mr HOCKING - It is not registered for the use of culling deer. Occasionally a deer might be poisoned. They are vulnerable to poisoning from 1080, but it is not currently -

CHAIR - It is not specifically for that.

Mr HOCKING - We would say in getting back to the game management, it is not a coincidence that 1080 is rarely used within the deer range because you have a pool of willing and able hunters operating on those properties to control the species that are normally targeted by 1080, namely wallabies and brush-tail possums.

Mr GAFFNEY - I am interested to know whose responsibility it is regarding the commercial market arm and if we have a commercial market in Tasmania. We heard last week from one of the people who are the owners and breeders of a deer farm, that they are unable to bring a stag or a doe from the mainland. They cannot import because of the nature of the deer or where it sits in the food chain. They are not allowed to import. Is that correct and does that fall under your regulations? Who should we ask that question of? I want to understand why.

Mr HOCKING - It would be under our act and regulations. Without talking about specifics, there could be an issue in relation to importing genetics of fallow deer from another subspecies. The one in question is the Mesopotamian deer, so it is *Dama dama mesopotamica* or *Dama dama*, and -

Mr GAFFNEY - European fallow deer?

Mr HOCKING - The concern is that the evidence suggests that Mesopotamian deer are able to survive at higher elevation in drier environments, and therefore are likely to increase the potential range of fallow deer in Tasmania to higher elevation areas. That was a concern we have.

Mr GAFFNEY - If we take it a bit further, we are looking at a commercial market for our deer. If it was herefords or a cattle that we breed for meat, there would be no question about bringing in stock from the mainland to try and improve the quality of the meat. If there was a breeder here who wanted to bring in a stag or a doe to improve the standard of the *Dama dama* he has, is it because we have said no before, that it is a case for saying no now, and we really have not investigated it? We heard recently how one couple put 16 years of their life into improving, and getting it ready for sale and consumption, and they want to improve the quality all the time - is there any thoughts about revisiting those rules and guidelines?

I understand what you are saying, and that makes sense if it was to escape. Then again, if the numbers show there have been no escapes, or few escapes, over the last five years from the people who are paying quite big money for one of their stock, and they are not going to want it to escape. I am wondering what is the rules or what do we do?

Mr HOCKING - I can say an assessment was done within the last two or three years of the potential for mesopotamic deer to affect the genetics and the adaptability of that species in Tasmania. We have considered that request fairly recently and it was rejected on the basis of the potential risk to Tasmania. Not just conservation areas, but also properties.

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Mr GAFFNEY - Help me out with the genetics here. Is it not possible to have a *Dama dama* and a *Dama dama mesopotamica*. If I went to the mainland to buy one I would just buy this deer that was not mesopotamic, or is it not that easy to do? If a person does not buy that deer, they buy the *Dama dama* which is here in Tasmania, that would not be an issue then would it?

Mr HOCKING - If it were in Tasmania it would not be an issue. It only comes under our act and regulations if the act of importing requires permission. That is how we have some control over that. A farm deer is not partly protected wildlife as long as it stays within the fence.

Ms RATTRAY - Can I have some clarification around that? On the mainland are there *Dama dama* deer?

Mr HOCKING - Yes there are, and there are some bright ones too.

Ms RATTRAY - Why is it not facilitated under a proper process that you can get one of those mainland animals into Tasmania to improve your deer herd if they are the Rolls-Royce of *Dama dama*.

Mr HOCKING - As I understand it it is because of the potential risk of extending the,

Ms RATTRAY - I know this is not your issue, Greg, but if they are already here and we just want to make them better quality, particularly for commercial operations, what would be the impediment? What would be the issue?

Mr HOCKING - Only if they are seen to pose a greater risk than the existing genetics of fallow deer in Tasmania.

Ms RATTRAY - But if they are the same breed, or are we saying they might be interbred over there? Is that what we are saying?

Mr HOCKING - Genetics are seen to be slightly different.

Ms RATTRAY - They jump higher maybe?

Mr HOCKING - As I understand it they might have broader environmental tolerances that allow the species to spread to a wider range of habitat.

Ms RATTRAY - Even if they are exactly the same *Dama dama* breed they still are not allowed to be imported into Tasmania?

Mr HOCKING - That is correct.

Ms RATTRAY - That is almost discrimination for the deer farmers?

Mr GOODSIR - Just taking that a level higher in terms of the import policy, these decisions are not fixed in stone. If there is an assessment made five years ago,

Ms RATTRAY - More recently. Two or three I think Greg mentioned.

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Mr GOODSIR - We have had instances where there was an assessment made and a review was undertaken and that was overturned. That is not unusual. It is not as if this means that it is never going to change and cannot be reconsidered with new evidence and with new information. The other element of it is that, depending on the risk that has been assessed, it may be approved for importation based on the condition that certain risk mitigation strategies are put in place.

Ms RATTRAY - A higher runner fence and whatever else.

Mr GOODSIR - Micro-chipped or whatever it might be to manage the risk that has been identified through that assessment process. I am not wanting to leave you with a feeling or the perception that once an assessment,

Ms RATTRAY - That there is no flexibility within the department?

Mr GOODSIR - Do not get that sense. There is certainly flexibility and a review and examination. That is not off the table forever. Whatever assessment was done in the past can be reviewed.

Mr GAFFNEY - I was interested in disease. It states Australian deer are relatively disease-free at the moment. What is the internal investigation if a hunter suspects a deer that they shoot has a disease? What are the requirements, how do they report and have you had any reports of deer carrying disease? Some people who want to deregulate say they are a disease risk, et cetera, and that is why we have to get rid of them. What are the disease statistics over the last five years, if there has been any evidence of that? If so, what are the major diseases you are concerned about?

Mr HOCKING - Firstly, in relation to a hunter finding a diseased animal. We would encourage anyone to report it and take a relevant sample of the tissue they suspect is diseased to the Mount Pleasant laboratories. In relation to particular disease, there is Ovine Johne's disease. We've had a survey underway there for a couple of years now. My understanding is the samples taken to date have proven to be negative. You have seen the list of diseases that was provided by our veterinary services people. They're the diseases deer can apparently sustain. However, within Tasmania the testing that has been done has not found disease to be of any significant prevalence.

Mr GAFFNEY - If I was a new hunter or shooter and applied for a deer licence to get my tags, does any information come with that application regarding identification of diseases? Is there information contained in that for the new shooter to say, 'This is what this disease might look like'?

Mr HOCKING - All hunters would received a copy of *Game Tracks*. That is a small magazine we produce annually. We have as recently as last year had inserts that detailed disease in various species of wildlife, to inform hunters who are out there regularly taking wildlife to look out for this or that and encourage them to provide samples.

Mr GAFFNEY - The broader thing is, especially with the Tasmanian devil issue the wombat issue with those sorts of diseases, would a deer hunter know that if they suspected something they would need to get tissue and send it to Mount Pleasant - from the readings when they get their licence?

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Mr HOCKING - From what is provided in *Game Tracks*, yes. This year there is a section dealing with disease and I am sure it would contain some encouraging words to report.

Mr GAFFNEY - Can you send us a copy of that?

Mr HOCKING - Yes.

Mr GOODSIR - You will see when we provide the permits, too, that it's not a condition of the permit as such. They are not legislatively obliged to do that.

Mr GAFFNEY - No, as long as they are aware of it. They might as long as they know it is their responsibility.

Mr GOODSIR - That's right. As a general comment, the division is going through a process of reviewing all permits, not just wild deer permits, looking at the conditions we place on them and the relevance and appropriateness of the conditions, and also looking at whether, through the application process and the information provision process, we can streamline things or provide additional information to people. Not so much their obligations but things they should be looking out for, ways they can be assisting and managing that issue you raised and highlighting particular offences so they're all aware of what their obligations are under the act. We are going through that process. We consider that to be a 12- to 18-month process and as part of that a key element is increasing information and awareness of various hunting activities.

Mr GAFFNEY - I am not sure how far you are into that report. Does that get tabled in Parliament or does that present itself back through your minister into Parliament?

Mr GOODSIR - It is a report driven partly by the database and IT systems that we need to manage permits, to make sure we can gather the correct information, have better connections with Service Tasmania, so people going there can have up-to-date information and get a permit issued quickly. Also to make sure anyone answering the phones and talking to interested parties has all the information. At the moment there are lots of databases and it is hard to manage. That was the primary reason for bringing this system up to speed, so we can provide a speedy service for applicants. As part of that we are looking at the standard conditions you might need on permits, what the non-standard conditions are, what information do we need to provide when we send our letter to them and what renewal or return forms we need. There will not be a final report, it is an implementation of our process improvement within the department.

Ms RATTRAY - Ben and Greg, on the summary page of the submission and the six dot points, it makes the statement:

Increasing the number of recreational deer hunters or issuing greater numbers of crop protection permits do not appear to be key factors in achieving population control for fallow deer.

We were given some evidence last week in the centre of the universe, in Campbell Town, that the hunters generally were looking for an increase in tag numbers, an increase by one for the male and one for female. I understood that would help control the population and give the hunting fraternity more opportunity because it is an expensive recreational activity or sport, whatever you like to call it. Plus they do some good work around vermin control. Can you expand on why that

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dot point is there, when I am hearing a different version from the Campbell Town hearings last week?

Mr HOCKING - It is simply drawing the conclusion that the increase in take of deer, and we accept that is occurring, particularly crop protection permits, that has been very pronounced. You have the statistics from recent years that show increasing numbers of tags going out, bearing in mind only 60 per cent of those tags are utilised. There is a wastage there but that is due to the difficulty in hunting deer. Despite that considerable increase in take of deer, it does not seem to be lowering the population, in tracking it. It reflects an increase in demand. I am not suggesting we should not be increasing numbers of tags going out, the potential take.

Ms RATTRAY - That is referring to the crop protection permits?

Mr HOCKING - Yes, and also the licence take, that has gone up to a lesser extent. Overall and in relation to antlerless deer, does and males without antlers, that take has increased in recent years. It does not appear to be controlling any signs of increase in the population. It will make some difference but it is not achieving a total control of population. It is not putting a plateau on the population. There is still good evidence the population is increasing in some areas.

Ms RATTRAY - What about extending the season?

Mr HOCKING - We have done that. As of this last season, we extended both the adult male and the first antlers deer season by a week, which was good.

Ms RATTRAY - More flexibility perhaps around that as well?

Mr HOCKING - Ultimately, the minister determines these matters.

Ms RATTRAY - He might need some advice.

Mr HOCKING - That is right, the minister does receive advice from the Game Management Liaison Committee on which we have land managers and hunters and they make representations.

Mr FARRELL - It states here that during 2015 over 500 permits were issued to landowners authorising the shooting of over 13 000 deer. We have heard from other witnesses to this inquiry that there is a large wastage of does that are shot and buried. Does the department have any idea of the numbers of deer that are shot and left?

Mr HOCKING - No, we don't have figures on that. We have figures on tags that are not utilised because people are required to return take information but, no, not the utilisation figure. I talk to hunters, to landholders, and I am given the impression that a very large proportion of deer are utilised, one way or the other. They are used by the hunter, their family or friends. Venison is a valued resource, and certainly when it is taken at the right time of year.

Mr FARRELL - Do you believe that part of the issue with leaving the deer to be buried is around the food hygiene act? Does that play a part in it or would there be any obstacles to that meat being used for pet meat processing? Are there people keen to do that or is it a wasted item? There is great demand for trophy deer but it seems the further you go down the chain there is a certain degree of wastage?

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Mr HOCKING - There are standards applied for utilisation of any meat through sale, whether it is pet meat or for human consumption. There is a standard - not set by us - elsewhere in the department. It must be taken in a certain way and processed in a certain way.

Mr GAFFNEY - On bag limits, we had the impression that it was one-and-one and it has been increased now?

Mr HOCKING - Correct.

Mr GAFFNEY - To three. You said of the licenses, 60 per cent are successful because they are not an easy beast to shoot, or people buy licences and for a number of reasons don't get their bag limit. I gather it took some time to for the bag limits to be increased from what it was and that discussion took a number of years. If we then had an issue where, for crop management and that sort of thing, we issue quite a number of licenses, why are we so tight on one and two, or a bag limit of three? Somebody at the Campbell Town meeting suggested it should be two-and-three. I am wondering why, if the numbers are increasing across the state, as we have seen from the statistics, and we have an influx of deer sometimes destroying crops, why don't we increase the bag limit? The properties that manage their own deer can say, 'This could be the license, you might be able to take two-and-three, but on this property you are only going to be able to take one-and-two'. I see from the internal management perspective that can be up to the property owner and the hunt club but why isn't it more than three deer? One of the recommendations is that the bag limit should be increased. We have to understand, what is the reason for it to be set at three? If a recommendation came from the committee that bag limit numbers are to be increased, would it help you come to a decision, or would it have no effect?

Mr HOCKING - It would be considered. The minister would make a call on whether we proceed with a regulatory amendment, which would be required to change the bag limit. We noted the recent agreement/recommendation from the Game Management Liaison Committee to increase to three.

Mr GAFFNEY - In that discussion, was there a proposal to increase it to four or five?

Mr HOCKING - No, it was considered to only move to three at that stage. I would note that there is probably more flexibility. You can make permitting, as distinct from the game licences with a set bag limit, more flexible and cater for property requirements. We have a system of management permits allowing hunters on certain properties to take additional stags during the season, to cater for the needs of that property. Rather than taking the alternative approach, which would be to have a blanket increase in the stag tags going out. We would do it on a more flexible basis, and accommodate the needs of individual properties better by doing it under permit.

Mr GAFFNEY - That bag limit was changed recently, in 2015?

Mr HOCKING - It was changed in 2015 for the 2016 season, so it has only been in place for one year.

Mr GAFFNEY - What is the deer licence now? Is it \$68?

Mr HOCKING - Yes, something of that order.

Mr GAFFNEY - Was it \$68 two or three years ago?

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Mr HOCKING - It is indexed according to the CPI in Hobart, I understand.

Mr GAFFNEY - It did not increase because it went from two to three?

Mr HOCKING - It was indexed up because of CPI increases, not because of an increase in limits.

Ms RATTRAY - In regard to poaching, you have given us a table. Since 2010 there were three convictions. In 2015, there were 10. Are we better at picking up poachers or has there been a significant increase in hunters poaching? What is the penalty? Is it substantial enough to deter poachers?

Mr HOCKING - I am not sure. The resources devoted to enforcement activities remain much the same over that period, I think.

Ms RATTRAY - A Sunday morning at the back of Campbell Town doesn't appeal to many officers?

Mr HOCKING - No, they are out there doing odd hours, don't worry. The number of compliance staff, wildlife rangers, operating has been much the same over that period. I am not sure what is underlying those trends. There may be more incentive to poach.

Ms RATTRAY - Or they are lazy and don't bother getting a licence?

Mr HOCKING - Social media plays a part. People love to brag.

Ms RATTRAY - Even people who take three little monkeys.

Mr HOCKING - Yes, even people who do unlawful things. I note that, we have picked up a few people that way. As for penalties, they are substantial. The loss of firearm, for a start, and that does hurt people.

Ms RATTRAY - That would hurt.

Mr HOCKING - The monetary penalties are considerable, hundreds of dollars. Under the regulations, a person who is convicted of an offence - under the Wildlife (General) Regulations, for example, and other regulations or relevant offences - is precluded from receiving a licence or permit for the next five years following conviction, so that hurts people.

CHAIR - Do they also lose their firearm licence?

Mr HOCKING - It can result in that, yes. It would certainly result in Firearms Services reviewing that matter. Yes, it can come about because they lose their reason to possess a firearm, so that can happen.

CHAIR - To follow up on poaching, you have officers out there, rangers, looking for poachers, but the police also police that too, do they?

Mr HOCKING - They do, yes.

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CHAIR - If the police arrest people, you get the feedback from the department on that?

Mr HOCKING - That is correct, yes.

Mr GOODSIR - I think, to go to the point you raised earlier about - there are a number of poaching laws - whether poaching activity has increased or not. It is hard to say, from these figures. As Greg said, our resourcing activity in this area has pretty much remained the same, but there has been a change in practice, an improvement in the way that they work with police, Crime Stoppers and the community, to raise awareness. I think they are gathering intelligence in different ways, including, as you mentioned, social media. That probably reflects those increases. It is hard to tell whether there is an increase in poaching, based on those figures.

Ms RATTRAY - I would expect to, but it is a fairly tight-knit community. People know other shooters.

Mr GOODSIR - Yes, that is right.

Ms RATTRAY - It appears that it is a tradition for a lot of the people that made representation. They have been doing it with their families since they were knee-high to a grasshopper. I am sure they know who is normally around and who is not.

Mr GOODSIR - Yes.

Ms RATTRAY - I am interested in those figures. Thank you.

Mr GAFFNEY - Have you read the submissions coming online about the inquiry?

Mr HOCKING - Yes.

Ms RATTRAY - They are probably the only people that have, other than us.

Mr GAFFNEY - I think there are quite a few people. Last week we heard recommendations from different groups that presented to us. People wanting to see this course of action gave recommendations throughout the report. There are some I do not think you can respond to immediately, but I would like to hear the department's point of view on those submissions. Would you like to discuss them now and put the responses on notice, because there are a few. For example, one said that, 'The responsibility of control of wild fallow deer is transferred from the Wildlife Management Branch, DPIPWE, to Biosecurity Tasmania'. That is something you would not want to answer on the spot, but it is a recommendation. How are we to best deal with some of those recommendations?

Mr GOODSIR - It would be useful to take that on notice. Sometimes that recommendation needs to be considered in the context of what they have said in their submission, to understand where they are coming. We can then make sense of the point they are trying to make.

Mr GAFFNEY - Yes.

Mr GOODSIR - I think it would be useful to take it on notice.

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Mr GAFFNEY - Could we - on that point, I am sure Tony will touch on some of these anyway - as a committee, forward you some of the recommendations we thought had some weight and identify which submission they came from? Even though you have read all the submissions, would you be able to respond to us, given a length of time to do so? We have a recommendation, and we want to understand why, for example, you would agree with that recommendation. You might think it is a good idea and it should be put forward, or you disagree and offer your reasons. I think we need to have that on record so that we can have a look at a different point of view.

Mr MULDER - I agree with you, Mike. As we go into the report-writing stage, it would be nice to have the department's view about some of the issues before we fell into the old trap of doing what we thought was right and have the Government come back and bark at us for not understanding the issue.

Mr GAFFNEY - Yes. There were some good cases put forward on both sides, one for deregulation and one for regulating the status quo, or improving the bag limits. On those, we will forward these to the department and identify where the recommendations came from, so you can see the background context. We would require a response, in order to continue with our committee work.

Mr GOODSIR - Yes, we are happy to take that on board and on notice. Depending on the recommendations you select and forward to us for our views, it may be that we do not have a specific view about it. It is the overarching objective of the Government. Within that there are pros and cons and risks and issues that need to be considered, but in terms of the overarching objective we might not have a specific view. Depending on what the recommendations are there might be some that are very clear cut.

Mr GAFFNEY - To be clear, they are not recommendations from this committee. They are recommendations from the submissions that we received that we can then assess.

Mr MULDER - There are suggestions.

Mr GAFFNEY - There are quite a few that have come through that we would like the department's take on.

Ms RATTRAY - Really detailed submissions as well and no form letters whatsoever.

CHAIR - When the committee is finished with all the hearings we can write to the department with those recommendations and get an answer for our final report.

You say you do a spotlight survey; can you tell me how that survey is conducted? Over what period of time and where and when?

Mr HOCKING - The standard spotlight surveys are done at night from back roads around Tasmania. They have been conducted since 1975 although on a smaller subset of survey routes than we do now. Currently we do about 178 10 kilometre transects on roads, off roads, around Tasmania. They are happening now. They normally start in mid-November. They will be completed by the end of January. We have standard protocols: you drive at a certain speed, there are two people, a spotlihter and the driver and recorder, noting wildlife that you can see by spotlight from the road, which could be up to 100 metres or more from the road.

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CHAIR - You do not actually go into the farms.

Mr HOCKING - No, we pass through farm lands but the surveys are based on rural roads. We obviously do not do the Midlands Highway or the Bass Highway, but the back roads of Tasmania. Mostly unsealed roads.

Ms RATTRAY - But you do the Esk main road?

Mr HOCKING - No, we would not do the Esk main road. There is a sort of traffic safety issue there.

Mr MULDER - You do not want to be shining spotlights into the eyes of oncoming cars.

Ms RATTRAY - You are looking into the paddocks though, along the back roads.

Mr HOCKING - Back roads. Storys Creek Road, for example, the Royal George Road. A lot of forestry roads.

Ms RATTRAY - Prossers Road, that type of thing.

Mr MULDER - The road out to the island, through the Macquarie River basin there.

Mr HOCKING - Yes, that is right.

Mr MULDER - Up the back of Ross; that is a frequent one.

Mr HOCKING - Yes, that is correct. They are done annually using standard procedures, standard speeds, the same spotlight, similar elevation off road. Not a sedan a four-wheel-drive, a HiLux or something like that and trained observers. It simply aims to get an index of abundance of these species. It was originally set up in 1975 for wallabies and possums to satisfy the commonwealth requirement that we monitor those species so they would allow export of product. That is how it came to be. There were originally 50 of those 10 kilometre transects. Most of them are still there. We count wildlife that we see and estimate the distance to the animals. That allows you to correct the figures for sight ability. If grass is long you will not see them as far away so your strip is effectively narrower. What you do see is the higher density.

Mr MULDER - This is for the roo, not the deer.

CHAIR - Are there any stats on how far a deer travels? I know they will travel for food. Do they travel from say Ross down to Oatlands, or further?

Mr HOCKING - They move over a considerable distance but I would not think that much. They certainly move over kilometres. They have a regional distribution. It is certainly a complicating management issue. Unless you have an extremely large property you cannot manage purely on a property by property basis because deer will cross boundaries.

CHAIR - I was just wondering what distance they travel.

Mr HOCKING - It can be kilometres. The normal movement wouldn't be that, but over a season it might be a kilometre or two.

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CHAIR - What age does a deer live to?

Mr HOCKING - Maybe 10-15 years - I'm extrapolating from wallabies and kangaroos.

Ms RATTRAY - If they're lucky.

Mr HOCKING - With most wildlife you have a fairly high mortality rate in younger years. If you get through to maturity you're doing well and then you'll have a period of relatively high survival.

Mr MULDER - How many deer are out there?

Mr HOCKING - In the order of 20 000-30 000. We accept that is a very approximate estimate.

Mr MULDER - On a 10-kilometre stretch with 150 pieces spotlighting, you'd be pretty lucky to be getting a valid sample.

Mr HOCKING - The estimates are not based on that; they are based on property estimates we've done.

Mr MULDER - Have you any idea in which areas they're concentrated? We have heard reports of them in the Huon, on the north-west coast and down in the Nugent area. Do you have any idea, by region, where the population concentration of these 30 000-odd deer are?

Mr HOCKING - We have. There's a map in the submission. That's the information we have and we have reports from those outlying populations you mentioned - Huon, Bruny Island, King Island, Marrawah, Waratah and up into the north-west - which have originated as a result of deer farming activities, either escapes or unauthorised releases. Once deer are behind wire they're accessible to people who might do the wrong thing.

Mr MULDER - I won't ask you to comment too far, but there are persistent rumours of people deliberately releasing deer they have moved from here into the forest behind Nugent and Kellevie. If you have that sort of activity going on, controlling by shooting becomes almost impossible, doesn't it?

Mr HOCKING - Yes.

Mr MULDER - If there's only 20 000-30 000 and you're killing 13 000 a year -

Mr HOCKING - Remember I said we only have a utilisation rate of about 60 per cent. In recent years it might be higher. I accept that the estimate we've been giving on population is low.

Mr GOODSIR - The university put out a paper recently and I think they were estimating maybe 40 000 in 2014. That's probably conservatively closer to the number we've agreed with now as well.

Mr MULDER - Of the wild fallow deer, how many do you think were culled last year?

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Mr HOCKING - It might be as high as that this year, given we have released approximately 19 000 tags - 60 per cent of those being utilised - plus the take from licensed deer hunters, which would be up towards 13 000-14 000. We are waiting for final figures. We don't have them yet for this year's crop protection take because some of those permits are still to come.

Mr MULDER - If you're taking 13 000 out and the population is still growing, we have a serious problem. Has any thought been given to, for example, one year of saying 'Open season, cull as many as you can'?

Mr HOCKING - We haven't thought of that. Increasing permitted take levels would be considered. Again, the results we have say we are allowing a lot more deer to be taken and they are not being taken under the current system.

Mr MULDER - I guess part of that comes down to this tag system that is trying to monitor the take. It is also sending a message, with poaching and all of the other bits and pieces that go around it, that we are trying to protect the amount of take. I believe we have reached the point where we need to do a couple of short, sharp jabs to get the numbers back under control because the current permit system isn't doing that. Obviously, that is a government policy issue that you have to work through, but to give you my thinking and perhaps other members of the committee, starting to wonder why we are regulating the take when it is not achieving its aim. I guess it used to be to make sure the population survives so there was recreational hunting. We have now flipped to the other side where we need to get the numbers down so we don't eventually end up with a massive explosion of them.

Mr HOCKING - We also regulate for the proportion of different components of the population that are taken, male deer versus antlerless deer - female deer.

Mr MULDER - There are other things. If you are trying to get rid of the population, then get rid of the population. The male/female thing is to try to make sure that there is a breeding population continuing, when for a while we may not want that.

Mr HOCKING - Not just to maintain the breeding population but the quality of hunting is the other issue. In other words not just numbers but also to ensure a number of males get through for hunting purposes.

Mr MULDER - To the food hygiene regulation, and I appreciate you are not there, but it seems to me that there is a great market out there for this surplus product. A deer is shot in a paddock and it is hung in the paddock, but does it have to be dressed by a qualified butcher in hygienic circumstances before it can be packaged for human consumption? Is that how it works?

Mr HOCKING - Yes, that is my understanding of the requirements.

Mr MULDER - One landowner suggested we should have entrapment pens, so the population will find themselves in a pen and be trapped that way. If you did that, would it be possible to get someone to come in and truck them off to the abattoirs. Those sorts of mechanisms are being suggested to deal with the population. I understand that sooner or later there has to be - if we are going to strike a balance and not go to the extreme of eradication, so there is a quality of hunting population. If that is what it is, why don't we turn that into leaving the hunting population as it is, but setting up these entrapment pens in various areas to reduce that overall population and then supply that meat to the market?

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Mr HOCKING - I suppose these are things you can consider. The welfare side of it you would have to look at.

Mr MULDER - Once you got them in a pen it would be like a cow in a feedlot, wouldn't it?

Mr HOCKING - Recalling back to when deer were trapped 30 years ago for the farming of deer, I think they had to be sedated at that time. They cannot be simply herded like cattle or sheep. They are still wild animals and they don't take to being trapped very well.

Mr MULDER - What are the regulations around pet meat?

Mr HOCKING - There are still standards that must be met. They might be a bit lower than human consumption, but not greatly. The animal still has to be harvested by an accredited game meat harvester, appropriately trained if it is to be used for sale for pet meat.

Mr GAFFNEY - Probably this one is to Ben as it is to do with national parks. Do we have any national parks or areas that people are allowed to cull or shoot deer on?

Mr HOCKING - Yes. Over 10 years a number of areas of reserved land, primarily on the Central Plateau, small conservation areas, have been available by ballot to allow deer hunters there during the season. In the first instance it was only the March deer season. Last year we allowed people to go back during the antlerless deer season and hunt those.

Mr GAFFNEY - Why have you done that?

Mr HOCKING - From two angles, the hunter enjoyment of that practice and to keep pressure on the deer population in those areas.

Mr GAFFNEY - Is there an increase in deer population in those areas?

Mr HOCKING - I do not know there is much of an increase in those areas. The return we have had from hunters who have hunted there suggest it is a very low population. The success rate is extremely low. There is only a handful of deer across all those areas per year that are taken by dozens of hunters. Your chances of success are very low.

Mr GAFFNEY - In the national parks where we have some significant heritage value because of the ecosystem there, where you do not want any animal, any deer there at all, does the department engage in trying to get rid of any of the deer that may be in those areas or is it purely on the ballot and purely on the hunting fraternity? Does the department do any culling or hunting to get deer out of areas that it thinks is sensitive and needs protecting?

Mr HOCKING - My understanding is, no, the Parks and Wildlife Service does not do culling in those high conservation areas which are distinct from the areas where hunting is permitted. These are areas to the east of the higher conservation areas. They might still be a Tasmanian Wilderness World Heritage Area but further to the east of the high conservation area. The study that is to be undertaken might guide any future management there. One of the problems is we do not have a lot of information on impacts of deer by conservation value areas. The World Heritage Area has been extended into areas where deer traditionally occur and have traditionally been hunted. These were previously state forest areas. My understanding is the

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Parks and Wildlife Service will be continuing to manage some of those as areas available for hunting.

Mr GAFFNEY - With crops that are damaged at times, if a farmer says I need to cull because my crops are getting damaged, are there instances where the department has said, no, you cannot have those permits?

Mr HOCKING - There might be an issue around the nature of the deer you might be allowed to take. We have a period from the first weekend in November until early March, when we do not permit the taking of antlerless deer. That has traditionally been a practice and it has been there for a long time and based around consideration and welfare of fawns.

Mr GAFFNEY - I am not trying to corner anybody here. A national park or crown land, the farmer has land, deer can hide in the national park or the crown land, and the farmer has a crop, deer go there to eat and then go back. The farmer wants to kill all those deer, within reason. How do you decide whose responsibility it is? We have some farmers saying that is a feral animal and because of the partly protected species, they are allowed onto my property and it's costing me a lot of money. It's a bit of a conundrum when a farmer can't protect his crops and has to call and apply for a bag number or a permit when they're out one night and see five deer in their paddock. They don't have a permit so they have to chase them off, if they can, until they come back half an hour later. I am concerned some of our farmers are feeling there's a product that's good for some properties, because they make a return from it, but a lot of the smaller properties can't get a return from it and yet they are suffering with it. That is why they're considering poisoning or being able to shoot at any time of the year. Do you have that discussion with your liaison group, or has this been an issue?

Mr HOCKING - It is, but we would try to facilitate reasonable control on that property. There is the opportunity to plan these things. It's rare that deer appear and a farmer is confronted with the need to do it now. I understand the need, but hopefully the farmer would be aware the deer are on or around their property. We would make sure we have permits and tags in place to allow them to control the problem, when and where it arises on their property.

Mr GAFFNEY - For example, if a national park borders a farmer's property, if the deer hide in a national park and the farmer wants them to be culled by permit, are hunters allowed into the national park to shoot those deer? They don't hide on his property in the day, but they come out of a night to feed.

Mr HOCKING - I'd argue that is the place you want to take those deer, on the farmer's property, because they come out at night. Under a crop protection permit, spotlight shooting is the way to go.

Mr GAFFNEY - Is there a national park where shooters are not allowed access?

Mr HOCKING - You would need a permit to allow shooting on that national park. Generally, it wouldn't be a national park, it would be reserve land, a conservation area or regional reserve; subsets of the reserve land categories. Some of those areas might be available by ballot, but I am not aware of situations in which we have even been asked to cull on reserve land. The best place to take those deer would be on the adjacent private property when they come out to feed.

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Mr GAFFNEY - If we see the numbers increasing - if we've gone now from 20 000-30 000 to maybe 40 000, there is an increase - the more deer there are, and they will have to spread further and wider to find the feed. Some of these issues need to be rethought. Twenty or 30 years ago you would never see a deer at the lakes. Now you see a herd of 60 deer and it's not uncommon. When I was a kid, you would hardly ever see a deer. Anecdotally, they're increasing. Are our rules and regulations flexible enough to manage this increase?

CHAIR - For the committee's information, breeding in the wild, a doe usually has only one fawn?

Mr HOCKING - Yes.

About permits and processes and things such as that, the time period for a permit had been extended from one year to five. That wasn't for a deer permit; I was talking more broadly about some changes put in place around the permits and processing. But that wasn't for deer permits; that hasn't changed in terms of the number of years they are -

Ms RATTRAY - We heard you are trialling other areas, and then you will look at taking it onto deer hunting or deer in the future, is that correct?

Mr GOODSIR - Yes, that is right. We are doing it at the moment - possums, wallabies, and looking at how it works. We are implementing that at the moment. It is part of the broader project I mentioned earlier, about looking at permits, conditions and standards, and the best way forward.

Ms RATTRAY - Is there any reason you didn't include deer originally?

Mr GOODSIR - I am not sure why that came up.

Mr HOCKING - The primary reason I can think of is deer permits come with a quota and that particular level of take would need to be assessed on an annual basis. Possum and wallaby permits are open. You can take wallaby and possum on that property during that period.

Ms RATTRAY - My only complaint is that people don't take enough of them and I hit them on the road.

CHAIR - Thank you both.

THE WITNESSES WITHDREW.

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Mr JOHN TOOHEY, WAS CALLED, MADE THE STATUTORY DECLARATION AND WAS EXAMINED.

CHAIR - Welcome, John. All evidence given in this hearing is protected by parliamentary privilege. Any comments you make outside the hearing may not be afforded such privilege. The evidence you present is being recorded and the *Hansard* version will be published on the committee website when it becomes available.

Mr TOOHEY - Thank you for this opportunity. I have been passionate about deer since the 1970s, participating in a developing cooperative management regime, which is where we are at today. My background, business and involvement, was in the submission. I gave you in the submission a potted background of the deer scene. It has always been complex. In the 1970s, it was fraught with tension between the parties and was basically outright war. It was picked up in the media over the years. For about five years in the 1980s I was national president of the Australian Deer Association, so I have a reasonable understanding of the issues and what goes on.

I would argue that the current system is sound but does need some refreshing to regain a consensus between all the parties. I do not think there is time waste as the problem only gets worse with each year that passes and each fawn drop. Since preparing my submission I have had time to read a few of the written submissions published on the website and I think among them there is a lot of common ground.

I tried to give thought to the principal issues and what might be acceptable solutions. In my work history, I was known as a problem solver, not a problem creator, so hopefully I can make some comments now that might be of assistance to the committee. Each of the potential solutions I raise is complex with inherent mitigating factors which would need to be teased out later by all the interested parties.

Firstly, though, and this is where my passion comes out, I wish to clear up misunderstandings by some respondents of what quality deer management means. I was in on the ground floor and together with colleagues from the mainland was probably the instigator, as national president of the ADA, of bringing quality deer management to Australia. It has been blamed in some submissions for the increase in deer numbers or used as an excuse to increase deer numbers. Left out of the correct interpretation is that the size of a deer herd needs to match the environment, natural, economic and social, within which that herd lives. If it is causing unacceptable environmental damage then the size of the herd needs to be reduced. Likewise if there are any significant economic and social impacts, such as those on farmers. Quality deer management is about a biologically healthy herd in balance with its environment, not big numbers and not big antlers. I think that has been misrepresented and it is misunderstood.

Overall though there seems to be agreement that deer should not be allowed to flourish outside the traditional range and especially in the world heritage area. To me the term 'traditional range' though is problematic. Over my 40 or more years involved I have seen all sorts of maps with all sorts of lines on them. For years it was believed there were no deer west of the Highlands Lake Road. However, I can remember when I was working at the Hydro and looking at the sale of Bronte Park Village that I found written evidence of deer being at Bronte Park in the 1960s. They have been about but perhaps not in such large numbers.

Perhaps the term 'acceptable range' is a better term requiring some consideration being given to the definitive boundaries and maybe, dare I say it, a buffer zone to the world heritage area. I

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say this because I believe deer should be wiped out outside an acceptable range. This raises the issue of how to wipe them out beyond the acceptable range of both public and private lands, excluding, of course, well-fenced deer farms. There are a few options. Poison I do not see as being acceptable to anyone because of the dangers to other wildlife. Fencing and tracking is cost prohibitive. I heard the talk about trapping deer while I was sitting in the gallery. Trapping deer was much more difficult than anybody imagined for that first collection for the farming of deer. They are a difficult animal to control physically. You could talk to deer farmers about that. No doubt some of them could expand on the difficulties they have had. Helicopter shooting seems to be a popular notion. It is unlikely to be effective in Tasmania's landscape, which is significantly different to New Zealand where helicopter shooting a red deer - twice the body size of fallow deer - was quite effective on the open tops of highlands. Here we are talking about deer that can race into thick bushland in no time at all. What does a helicopter cost, \$1500 to \$2000 an hour? On top of that there is also likely to be substantial animal welfare issues. It is extremely difficult to make one-shot kills from a moving helicopter.

Ms RATTRAY - I have three crosses so far. I'm not getting any ticks here from your suggestions.

Mr TOOHEY - Three crosses?

Ms RATTRAY - I have been writing down your suggestions and I am putting a cross beside them after you've finished talking.

Mr TOOHEY - Concerted hunting is probably the only reasonable method, whether it is undertaken by paid hunters, which could be an expensive exercise, or recreational hunters, which would be the cheaper alternative. I think it is time to think outside the current paradigm of the system. As I said earlier I think the system is good it just needs tweaking around the edges. I took on board earlier the comment about perhaps things need to be a bit more radical for a year or two. That has been in my mind a long time for different reasons.

Mr MULDER - I'm all for being radical for a year or two, if not more.

Mr TOOHEY - Perhaps a take in a year season could apply to localities outside the acceptable range, with the hunter paying a licence fee and only excluding, for animal welfare purposes, the time period November to February inclusive when fawns are at foot. It would require some control on public lands that were mentioned earlier, perhaps a balloted permit system. For private land some form of mandatory removal requirements for wild herds. I personally don't agree with deer being at Dover and the north-west coast, Bruny Island and so on, but I don't quite know - it's within the Government's power to do almost anything - how you would enforce the removal of deer from private land. That could be difficult. Within the acceptable range, management responsibility should remain with the landowners. There should be no compulsion on a private landowner to carry any deer, as it appears it might have been a past practice of the game management unit, to limit numbers.

The transient nature of deer requires close co-operation between neighbours, which does seem to be impossible and I don't have a simple answer, except to say that if the deer only visit your crop at night then nighttime is the time when you have to take them. Perhaps to lighten the paperwork burden on private landowners they could be given an unrestricted cull permit for, say, five years, similar to the wallaby and possum process and only need to keep a total legal take in their hunter's observations. On the property I hunt we meticulously keep records. We report

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everything that we see, from wedge-tailed eagles to Tasmanian devils that were actually bred on our property recently.

Mr MULDER - Foxes?

Mr TOOHEY - No, we allow the fox baiters in, but there was no result. I have a lot of stories about cats. We have taken a lot of cats on two or three properties that I have hunted on over the years. There was one with a farm dam and the owner's wife, I remember commented to me, black ducks used to breed on that dam. On that property we shot something like 30 cats and the ducks came back. A lot of hunters I know will go a long way out of their way to chase cats.

CHAIR - That's another issue.

Ms RATTRAY - It's a serious issue, though, isn't it?

Mr TOOHEY - It is critical. A lot of hunters are interested in more than just pulling the trigger. They are interested in the whole environment that they are in. You can see cats ruining that environment. My hunting places have largely always been in the Central Highlands and I have seen, I called it a ground parrot, but I was told it was something else from one of the rangers. They used to feed a lot on the ground and they are not there anymore. The only thing I can put it down to is cats.

Mr MULDER - That was a bit of a detour.

Ms RATTRAY - An interesting detour, though.

Mr TOOHEY - It's another passion of mine. My written submission contains my objection to deregulation. It would be a backward step to the conflict of the 1970s. My objection to commercial shooting for human consumption - which has come from my business experience - I see it destroying the market for the existing deer farms that have kept themselves going for 20 years and invested millions in fencing and animal welfare and all the processes associated with getting a high-quality product to market.

Ms RATTRAY - What about, as the member for Derwent spoke about, for pet food, the excess, the surplus?

Mr TOOHEY - My mind says there should not be a surplus. If you are privileged enough to hunt deer, you should use every useable part of the carcass.

Mr MULDER - That is probably more referring to the shot deer.

Mr TOOHEY - There is a limit to that. I do not own the property, I am a guest on the property, and we have to take something like 10 does each a year, which is hard work.

We fire a shot, they run onto the next property, so you go back another trip and another trip, and another trip, and then I have figured out through hard work, that I can handle five carcasses at a time. You take them probably over a period of days. You hang them. In Winter it is safer in the highlands because the temperatures are colder. I then have to take them home whole. You hang them. You have to skin them. You have to cut them up. You have to end up with them in cryo-pack bags. That can take days on your own. I have mates who have come around to help

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and, of course, give it away to friends and relatives and anybody else. One of the major points I wanted to make was encouraging the committee to give consideration to recommending to the Government that it identify the economic and social values of hunting to the Tasmanian community.

The Victorian Government did it 12 months or so ago. My memory of it was that it was worth tens of millions. I think it was in the 100 million mark to Victoria. I know that a large number of Tasmanians go over there for deer hunting in the Victorian forests and national parks. They are hunting in some national park every year, via the Spirit of Tasmania and back again.

Hunters generally spend a lot of money. They might not want their partners to know, but I did a quick sum, the 5 050 hunters spending about - and I think it is a bit conservative - \$2 000 each a year. That is \$10 million worth. I am talking about just spent in Tasmania. By the time you add up half a dozen trips, \$100-plus a trip, let alone buying new equipment and everything else that goes with it.

I encourage the committee to recommend that to Government, because there is one element missing. Talking about the commerciality of deer, the focus has been on, 'Yes, I'll shoot it in the wild and sell it to a market or restaurant'. As I have said in my written report, there is an existing commercial industry. There is the hunting shops, the clothing shops. It is the taxidermists. It is the land owners. There is a raft of people with a finger in this pie.

CHAIR - It is interesting you touched on the taxidermists. Nobody else - none of the other submissions - picked up on that, I do not think.

Mr TOOHEY - To my knowledge, there are at least two who are full-time. I am not sure of those. They have to be licensed, so the game management guys would know about that.

I was not going to bring this up but I heard earlier the issue of poaching. It is rife in Tasmania. My view is the penalties are nowhere near high enough. To a lot of poachers - and I do not like that word because it dates back to our convict days and where you took the king's deer to feed the family - this is a game. On the property I hunt we would find half a dozen carcasses each year with just the heads gone, everything else left.

Ms RATTRAY - Taking just for the antlers?

Mr TOOHEY - They chop it off for the antlers. It does not matter about size, it is a bragging right. Some years ago there was a competition on of the websites between guys, probably from the same pub or who knows what, for who can collect the most antler points. We have tried things like cameras and we have lost six cameras at \$200 to \$300 a pop. We have given up. We repair the fences, we chase -

CHAIR - Have you had any success with them?

Mr TOOHEY - There have been poachers caught on our property, thanks to mobile phones. I will praise the wildlife rangers and the police for their cooperation. If you have trouble, you can get on the phone and within a reasonable time they will be on the spot. They do a very hard job in very difficult circumstances that could be dangerous to their persons, let alone anyone else.

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I could wax lyrical forever on this topic. Thank you again for the opportunity to back-up what I have written. I am sure there are a lot of other answers to some of these issues. With private land, the landowner should have the ability to dictate whether he carries deer. That probably helps the smaller landowner to some degree and it recognises their land ownership. They have the ability to charge hunters. There are very responsible hunting groups out there. Anybody who is struggling to get hunters or get them to complete their obligations, I know up to 20 young fellows, in their twenties, who are responsible, who would give their eye teeth to establish a relationship on a property.

CHAIR - That was one of the things raised, that some people cannot get a property to shoot on.

Mr TOOHEY - Absolutely. These young blokes have bits and pieces of access where they might pay for a weekend or something like that. But to invest a chunk of their lives in a property, which is basically what you are doing if you want to head down that track of a quality herd and so on, those things take time and you are investing time in it. Then you are going out late at night in our freezing winter weather, at times, to shoot wallaby and shoot possum, generally out of your own pocket. Ammunition is not cheap and that is part of that \$2 000 plus we were talking about.

CHAIR - Can you hunt deer at night?

Mr TOOHEY - Under permit you can spotlight them at night. It is all easier said than done. You might go to a property for some reasons, generally the geography of it or the way the herd is, and shoot half a dozen in a night, maybe.

CHAIR - This is crop protection?

Mr TOOHEY - This is crop protection. You fire two or three shots in different parts of the property, get three deer and they are gone. Shooting them is a lot more difficult than a lot of people let on.

Mr MULDER - That is the scaring away thing, do you mean?

Mr TOOHEY - A couple of shots and they are gone. They are not stupid.

Mr MULDER - It is the same thing as we do on bridges and structures when we do not want seagulls crapping on our structure, isn't it?

Mr TOOHEY - I had responsibility for some of the grief for the seagulls next to the Domain slip for a few years. I remember testing all sorts of things for that, for scarers. The landowner should be able to say, yes, I will carry deer, or no, I will not, whether that's for aesthetic or historic reasons.

CHAIR - The poaching is always at night, 90 per cent at night?

Mr TOOHEY - No. Our property is relatively open and we've seen guys wondering through the middle of it, in the open and in the daytime. As soon as they see you coming, they're gone like rockets.

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Mr GAFFNEY - I was pleased to see in your submission some background to the property-based game management. I thought it was interesting.

Mr TOOHEY - I thought someone had to and I was in on the ground floor of it all.

Mr GAFFNEY - The bag limits have recently gone from one and one to one and two. Can you remember the conversation about how they were introduced? It seems to me, not being a shooter, a very small number of tags. Was that a conservative way of getting it into the system or was it a reflection of the numbers of deer? Can you give me any background information on how that number was arrived at?

Mr TOOHEY - It would have been an issue at the Tasmanian Deer Advisory Committee. It would have been brought up by those, or hunters, on properties with too many deer and wanting to shoot more. On the other hand, you have people who hunt marginal land who would see the ability to shoot more as destroying their opportunities, basically wiping the deer out.

I think the time has come that a landowner and his hunters should decide the level of take and what their objectives are. That's the essence of property-based game management and plans. I wrote the first one, together with a landowner who still owns deer property. It didn't quite match Brian Murphy's - the American consultant - model because he built his up over a period of time. I did that to show it could be done - and they're very comprehensive. It protects the landowner and the hunter, and preferably always in a cooperative arrangement.

Mr GAFFNEY - Were their commercial deer farms around in those days? It seems to be in the last 25 years people have invested money in deer farms. Back in the 1980s, was it mainly wild deer?

Mr TOOHEY - Yes. Deer farming came in in the mid-1980s. From my memory, it was a tense issue between government, landowners, hunters and so on, that this was the end of the world, but it wasn't. Thinking hunters got together and decided it was inevitable. It had happened in other states, in New Zealand and other places around the world. Venison is terrific meat. Eventually, agreement was reached and a lot of this came from the TFGA, not from hunters and leading landowners from the Midlands and Northern Midlands. I can name them but I probably shouldn't.

Ms RATTRAY - We can probably have a good guess.

Mr TOOHEY - Leading and influential - and were keen to be involved in deer farming because they had wild deer on their properties. They arrived at a number of 1200 deer - I think that's right, from memory - so many to be taken on a property up north, and so many from one in the Midlands. They put up their fences and it took them a while to trap when their properties had a big deer population, feeding out and so on. That's how you have to do it - feed it out with the gates open and eventually shut them. From that initial catch - I can't remember if there were five or seven approved farms deer could be sold to.

It went down the same track as goats, ostriches, and other animals. It was a bloom, other deer farms opened up and paid a lot of money and eventually there was no great market for them. Some people, some of those originals, have stuck with it and are very sensitive about wild shot venison. They have invested the time, money, the effort and everything else and see wild shot venison as undermining their market or killing their branded market.

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Mr GAFFNEY - We heard last week one young chap who had up to 1500 deer, he had raised his herd to that size because he thinks he has got a market for home-grown, good quality Tasmanian deer. That is the reason for not having wild short deer. It will wipe out his sale potential. I am not sure if you were here earlier when we talked about the introduction or import of a stag - not a different variety, as in the Persian. He said he felt sometimes they were not being supported in developing their industry because of the regulations. Can you comment? I think Ben said they could be micro chipped, so if it was a stag coming across to improve the herd -

Mr TOOHEY - I am not a scientist and I do not know. I have year 12 genetics, but I do remember that, when there was a push to bring in the Persian-fallow hybrid, hunters were against it. The antler formation is totally different. I talked to a scientist about it, who said it would probably take hundreds of generations to impact on that herd.

I am a bit of a quarantine fanatic, so I am not keen on animals coming from outside. As far as I know, our deer are disease free. Much has been talked about footrot. Footrot is deadly, across the country. The Australian Deer Association back in my day, in the 80s, volunteered to be part of the commonwealth effort if footrot was set loose in Australia. In other words, there is a group of shooters who can go out and take animals. I am not keen on things being brought in, especially when you do not know whether they have been genetically modified. There must be reasonable genetic diversity between our fallow deer, this is to my simple mind, for them to succeed so well in the wild.

Mr GAFFNEY - The department's response to that, and a survey of wild fallow deer in Australia found that they were relatively free from infectious diseases, but it is a 1985 study. A lot of things have changed in time. I was surprised they would put such an old study in their paper to support something.

Mr TOOHEY - Any hunter, if he takes wallaby or deer for consumption, should always check the liver, the lungs and so on, for anything.

Mr GAFFNEY - Have you ever come across a deer you thought had some disease?

Mr TOOHEY - Only one previously wounded months before. You could not put its condition down to anything other than the wound.

Ms RATTRAY - Do you have a view on the current functions of TDAC? We heard last week it was not necessarily representative of all stakeholders. I am interested in whether you have heard or you have an opinion on that.

Mr TOOHEY - Again, I reinforce, it is my personal view. I think it is balanced too far on the hunters' side, because now there are representatives of very specific properties. It is great to see they want input. One of the problems with this whole doe issue has been a mindset amongst Tasmanians, of hunters in general - even in the United States - that resulted in this quality of deer management, was a mindset against shooting female deer, because they believe big numbers breed big deer. No, they don't. That is scientifically proven. You need a biologically balanced herd and it will work, whether that is 20 deer or whether it is 100. I do think it favours the hunters side. It is great to see them have input, but I noticed over time that it went from significant representative groups to smaller property groups. That is very much my personal opinion.

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Ms RATTRAY - I appreciate that. I am just interested in whether you had heard anything around the traps. I don't have anything else. It is such a thorough submission.

Mr FARRELL - You mentioned younger hunters before. Groups that hunt on the farms - the farmers and the hunting groups - spend a lot of money there. How do you cater to younger hunters who probably don't have that level of finance but who want to get into the game? I know there are hunting clubs, but generally it can be a challenge.

Mr TOOHEY - It is a challenge. When I was in my twenties we had to knock on doors and we just kept knocking on doors and then build a relationship with the landowners. Mind you there probably weren't as many hunters then and that was before the whole issue exploded in the early 1970s. At the moment it only comes from having a relationship with the landowner and a relationship with someone who already hunts it.

Mr FARRELL - Would extending the season help that? Do you think that would be of benefit?

Mr TOOHEY - Then it comes back to the landowners. Does he want more hunters? Are you acceptable to him?

CHAIR - That's the big question.

Mr TOOHEY - Absolutely. I don't blame the landowner; I'd be as [inaudible] about it as anyone else. I don't have a ready answer. Some go into the game units ballot. That is very marginal, pretty rough land that they are talking about.

Mr FARRELL - And that is really the only opportunity outside privately owned property?

Mr TOOHEY - Yes.

Mr MULDER - The question that was being raised about deer management and the propensity to favour stags instead of does, what is the best method of population control? Is it to target does over stags or stags over does?

Mr TOOHEY - Does over stags. A spiky can mate with a doe when the doe is about a year old. It will get pregnant at about age two and a half, from data we collected on our property.

Mr MULDER - Your one-word answer sums it up. If we are going to start talking about culling for population control purposes then we need to start culling a greater number of does.

Mr TOOHEY - Females control their world just as they do ours.

Mr MULDER - And what is strange about that.

Ms RATTRAY - I'm happy with that comment, aren't we girls.

CHAIR - What would be the percentage of does and stags? Not fifty-fifty?

Mr TOOHEY - In Tasmania?

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CHAIR - Yes.

Mr TOOHEY - Nowhere near it. Prior to the 1970s Tasmania had a deer season where a hunter could take five stags and numbers crashed. A lack of stags meant they were taken at all ages and so on. The ideal is somewhere better than 1 stag to 8 does. In Tasmania in a lot of places it is probably one stag to 30 does. Biologically they are not like sheep. I am no expert on sheep but I know a ram can probably do 200 females. A stag would be lucky to impregnate 30 does. It is not going to happen. Despite all the activity, a super mature one, which would be rare because they have to be six or seven years old, may be able to do it because it is his behaviours that bring her into oestrus.

CHAIR - What is the time frame for breeding?

Mr TOOHEY - If you take this herd, the ideal is that he will get them all pregnant within the space of a week in the middle of April or thereabouts.

CHAIR - So April is the breeding time.

Mr TOOHEY - Yes, it is the main breeding time. Any that he misses will come in oestrus again a month later and they will get picked up and pregnant. Even a month after that. This is the data on my property which, because of neighbour issues, has got too many deer. Those late born fawns, from what I understand, can never catch up. It doesn't mean the females won't get pregnant when they become adults. The males are probably inferior because it is all timed around the environment in terms of our four seasons. It starts to get complicated and difficult to explain to people, but that is my understanding.

CHAIR - So April is the prime time.

Mr TOOHEY - The rut. That is when most poaching goes on, during the rut and straight after the rut. They are too easy to get because they make a lot of noise. They will stand out in the open. They only have one thing on their minds.

CHAIR - Pregnancy time?

Mr TOOHEY - Ideal is within a week. What is happening in parts of Tassie is that it is spread over months, which is the antithesis of quality herds.

CHAIR - The doe carries the fawn for how long? Nine months, ten months?

Mr TOOHEY - April to November. However, if they are late that will go into January/February so that is seven months.

CHAIR - Thanks very much, John, and thank you very much for your submission.

THE WITNESS WITHDREW.

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Mr DONALD IAN RIDDELL, SPORTING SHOOTERS ASSOCIATION OF AUSTRALIA (TAS), WAS CALLED, MADE THE STATUTORY DECLARATION AND WAS EXAMINED.

CHAIR - Welcome, Donald. All evidence taken at this hearing is protected by parliamentary privilege. I remind you that any comments you make outside the hearing may not be afforded such privilege. The evidence you present is being recorded and the *Hansard* version will be published on the committee website when it becomes available.

Mr RIDDELL - I am currently the senior vice-president for the Sporting Shooters Association of Australia, Tasmania branch. I have recently retired after 40 years of studying and practising forest science. I have a strong background in forest operations and forest modelling and planning. I have been a hunter in various forms all my adult life and I have extensive experience in stalking and crop protection with fallow deer in Tasmania and some experience stalking sambar deer in Victoria.

My fallow deer experience includes 15 years on a property at Ross, adjacent to the Charlton property which we heard Mr Andrew Winwood talk about last week. I have also been the SSAA Tasmania representative for a considerable period both on the Game Management Liaison Committee and on the Tasmanian Deer Advisory Council.

One of the reasons I wanted to invite Alan Kenny was because Alan is the currently, as well as our junior vice president, the current president of the SSAA Tasmania Deer Stalkers Club. They have one of the largest membership bases in the state and a large number of these members are deer hunters. His club holds a number of leases on production forest and hydro land for deer hunting. That has been discussed and I was hoping Alan would have been here to talk a bit more about that but I will try to cover that if I can.

Thank you for the opportunity to address the committee. I take the opportunity to reiterate our position, make some additional points and perhaps anticipate some of the questions that may be asked. Hopefully, we will have time to take questions after that.

At the end of August this year SSAA National funded a very successful three-day conference in Brisbane, hosted by the University of Queensland which was called Conservation Through Sustainable Use of Wildlife. I attended this conference and much of what I heard was relevant to deer management in this state. One of the important points being made by prominent ecologists was the increased role seen for hunters, both in providing positive conservation outcomes through either protection of land or landscapes by pest removal, or providing real money for species recovery. Deer hunters in Tasmania do both of those things.

I would also like to draw from this conference to my next point. A student at UQ, Ms Ellen Freeman, who grew up in this state in a family of deer hunters and is now completing a Bachelor of Science with a major in ecology and conservation biology, presented a paper on regulatory control of deer in Australia. She is quoted as saying, 'Populations of deer are rising and whether you classify deer as game or pest does not really matter as much as how they are managed'. This summarises the position of our paper. Tasmanian deer population requires pragmatic management, not emotive labelling of demonising or one-track, simple fixes or the like. We believe the Tasmanian system is a good demonstration of making a pathway through a lot of different interests. It has evolved over time, perhaps not as quickly as some would like, but hunters have shown themselves to be adaptive to changing circumstances.

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It must also be remembered that by far and away the biggest threat to agricultural production in this state is brushtail possums, the Tasmanian pademelon, and the Bennett's wallaby, and in some localities forester kangaroos are also very much locally abundant. To date I have not heard any estimates of damages by these species at these hearing but I imagine it dwarfs the impact of deer in most landscapes, including most of the so-called traditional deer landscape. This information could probably be sourced from the 1080 alternatives programs that arose from the Tasmanian Community Forest Agreement. I do not think the situation has improved much since this program.

We are described as recreational hunters. I submit that the word 'recreation' is somewhat inadequate to describe who and what we are, and our capacity to manage and adapt. Hunting, for many of us, is an integral part of our life choices and it meets emotional, physical and economic needs. We strongly reject those who demonise our possession of firearms, as part of this need, and who believe their life choices are superior to ours. Our traditions and values are important and immutable parts of us, and our family groups.

As a background, with a forest modeller, I manage wood production models and prepare strategic wood production plans for Forestry Tasmania, for the RFA, the first and second reviews of the RFA, and the Tasmanian Community Forest Agreement. The wood models many of you were exposed to in the Tasmanian Forest Agreement debate a few years back were based on systems I introduced to Forestry Tasmania. This background has given me a good understanding of limitations of models. Models are often a convenient but potentially misleading way of making decisions. They can be a good way to start a conversation about something that may be poorly understood.

However, they need to be constructed to include constraints, which are a reflection of the real world situation. When confronted with recent modelling on the Tasmanian fallow deer population that suggests by 2050 we would be up to our ears in fallow deer, I understand how such a model could be constructed. I am sure an audit would show the maths and formulas are okay. However, models are only as good as the data and often there isn't much hard data, especially as often happens in the ecological world. This is substituted by assumptions. Assumptions can rapidly lead you into the wrong space, particularly if they're only a little bit wrong. For instance, big differences in results will occur with small changes in assumptions, such as survival rates, especially when there is likely to be a compounding effect over a significant time.

I would submit that a collective real-time experience in managing the species in various shapes or forms for the last 180 years is more useful. One hundred and eighty years is a more than adequate time for even a small seed population to explode to these levels, way beyond what is currently out there. There must be some constraints happening. The real-life model is not a blank canvas, like a mathematical computer model. Thus, we would recommend your noting the reasons in our submission that a species that has potential for rapid expansion has never achieved its potential. It has been held in check, principally by humans. I don't doubt our ability to continue to do this. Maybe in recent years there have been some small changes in the environment that may be, say, assisting in the survival rate of fawns. However, I suggest there is no need to panic at the numbers yet.

As to a couple of the other terms of reference, environmental issues and impact on agricultural production, in addressing this point I would like to quote from our submission:

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Nonetheless, given the huge number of native herbivores in the landscape, coupled with stock, particularly sheep in rough grazing lands, it's virtually impossible to ascribe any significant general damage to deer. In specific localities where densities may be high and stock excluded, some damage may be apparent and assessable, but it is argued that these occurrences are only going to be relatively isolated under current numbers and should not be accepted as the norm.

I did a Google search this morning. I wondered how many sheep there are in Tasmania. In 2015, there were supposedly 2.2 million sheep. For those who hunt in the bush runs and rough grazing lands of Tasmania, which are constantly picked over by sheep, that's the damage you see if you think about environmental damage - it's sheep.

We heard last Tuesday from the Connorville hunting group. Adjacent private conservation landowners were culling deer and nothing else, and how native animals from these lands were invading surrounding pastureland in increasing numbers. The management of grazing pressure in the Tasmanian landscape is extremely complex and we believe, by and large, the negative impacts of deer are significantly swamped by other species. We know hunters enticed into the landscape for hunting deer can have a positive impact on numbers of other species. We have suggested in our submission that DPIPWE monitoring may provide some evidence of this. Simple decisions or recommendations in this area are likely to result in perverse outcomes.

As to pastoral protection, we believe the application of a pastoral protection tag is a pragmatic and efficient regular approach to managing deer. I would like to restate that negative outcomes listed in our submission we believe would occur if pastoral protection was removed: animal welfare issues during the fawning period over summer; loss of income for the Government; loss of income for properties charging hunting fees; loss of income for regional businesses; reduction in the number of hunters in the landscape to undertake browsing control; overall increase in browsing pressure on the environment and agriculture; and a significant increase in poaching and unlawful entry on public and private land.

Deer commercialisation we believe would be a bad idea. Some key impediments would be: profitable harvesting requires large populations; the patchiness, mobility and avoidance capability of deer make it hard to believe the numbers required would be available to sustain a consistent supply. It is clear from both the Tasmanian Government final report 'The Alternatives to 1080', and mainland experience, that commercial wallaby and kangaroo harvesting does little to control destructive populations. At the Brisbane conference I referred to earlier we heard farmers are unlikely to get a direct monetary return from commercial operations. Their carrot will be the promise of control, which will cease long before control is achieved.

The product is likely to be highly variable. Product consistency is the key commercial requirement in this day and age. Giving the animal a monetary value will increase the level of poaching with all farm management safety issues along with it. Meat hygiene rules and requirements make entry to the industry expensive and given other impediments addressed above would mean that very few operators would be able to be part of the supply chain. A few may prosper at the expense of many.

These points include the supply of meat for pet food, which I noted was a subject of some discussion at last week's hearing at Campbell Town. Only point three, product consistency, is likely to be less significant, although a conversation I had with a mainland colleague last week

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suggests the hurdle for pet food can also be quite high. He informed me that Sambar deer shot in an organised control program in the Yarra Valley proposed supplying deer to feed lions. However, even these could not meet the standards required for this purpose.

By way of personal background regarding pet food sales, prior to the Alternatives to 1080 Program it was possible, for a small fee, to get a commercial wallaby license instead of a game license. No-one had to do a meat hygiene course at great expense. I think the expense at the moment is about \$700 or \$800 to do that course. When I had a commercial license I shot significantly less animals, probably one a third, than just shoot and leave. I doubt I was doing the landholder any favours by selling carcasses. I was a much less effective pest controller.

Our principle concern is that in any type of commercial operation our members will be pushed out in a rush to get a monetary return. However, it is clear that commercial operators become uneconomic well above the level required to get effective control. Farmers are unlikely to be paid for the animal, certainly nothing like what some get from hunters' fees. If the primary objective is control, we need to put aside that it is waste of protein if it is not all used. In some cases we should accept some shoot to waste as the only legitimate option to get the numbers down.

Another model would be to allow licensed hunters to easily dispose of excess carcasses on an ad hoc basis to a pet food distributor, as we used to do before the 1080 control program. If required to do a meat hygiene course, very few would get involved. Unfortunately, human nature being what it is, putting a value on a carcass in this way will encourage illegal harvesting with an increase in landowner and compliance issues. We do not believe it is supportable.

We did not make any comments in our submission on public land management, but given it has come up in the briefings I would like to say a few words if that is okay. Public land has and will continue to be important for deer hunters. We wrote to the Legislative Council during the Tasmanian Forest Agreement process regarding the proposed agreement's potential for negative impact on land accessibility for hunters. This has come to pass, to a degree, as moving reserve boundaries closer to private agricultural holdings have become an issue.

Land that was once state forest is now public reserve and the hunting community is working hard to get back access to these areas. The Parks and Wildlife Service have had to expand to manage the non-production forest areas and they appear to have a more risk averse approach to this issue. Given the remoteness of some of these places this seems somewhat unnecessary. They also say they do not have the resources to manage these areas for hunting. However, if one accepts this is truly the case, leasing arrangements - as our club, Deer Stalkers, does - organised pest control projects, then SSAA Australia has Australia-wide examples of this for various species where hunting organisations work with governments and private individuals to manage pest issues. Or we have the Victorian access model for game, which allows relatively unrestricted access to state forests and some classes of reserves. Other than many of their top-of-the-line, high-level national parks they allow sambar hunting with some or no restrictions in quite a lot of the Central Highlands. I understand the farmers in Victoria who were having trouble with sambar in the greatest numbers are certainly the ones that adjoin the national parks that don't allow hunting. Some easily accessible high-density areas of deer population, such as the big den behind Connerville have needed direct management, and the balloting system has been an improvement. I think we are getting a little bit sensitive about some of the issues we might have in these places that are quite remote.

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I also note from earlier when there was a question about introducing hunters to landowners. SSAA Australia has a program called Farmer Assist, which has been introduced in Tasmania, which, for want of a better description, is like a farmer-hunter dating service. Hunters can register with Farmer Assist and farmers can put jobs on line for hunters. It has been running now for about 12 months in Tassie, but to this stage the response has been quite disappointing, both from hunters and from farmers. We did try to work with the TFGA on this. We did not get a lot of uptake earlier on and we have not been back to them. They are the obvious people to work through. We recognise that these things are issues and we have looked at ways of addressing them.

CHAIR - Are sambar deer similar to fallow deer, or are they a bigger or smaller deer?

Mr RIDDELL - They are a lot bigger. Some of the stags grow to 500 kilograms. They are a lot bigger, a lot more difficult to manage in terms of if you shoot one -

Ms RATTRAY - How do you get it to where you need to?

Mr RIDDELL - To get it where you need to get it. If you are doing crop protection and you shoot a couple of hundred of those a year on your property, trying to dispose of them can be quite difficult.

CHAIR - What does our deer, the *Dama dama*, weigh?

Mr RIDDELL - I think of them as basically a sheep with long legs. I think they are about 100 kilograms maximum.

CHAIR - Those are about 500?

Mr RIDDELL - A big stag will hit 500. They are quite intimidating in the bush when one jumps out in front of you 10 yards away.

Mr GAFFNEY - Thanks very much. I really enjoyed reading your submission. Some people see them as game or a pest. We have had one gentleman say to us that he believes they are more like vermin and that they should be exterminated because of that. Do you think deer are now part of the Tasmanian landscape? They have been here for 180 years, they are an introduced species and we just have to accept that they are going to be here forever?

Mr RIDDELL - That would be my view. I think if you spent a lot of money you would get the numbers down significantly. Whether the community is prepared to spend that sort of money - I doubt it. From my own perspective and I think it might have been Andrew who said at the meeting last week, 'I am introduced'. I think so much of our environment and what is in our environment is introduced. The notion of labelling things as vermin or feral, once they have been there for 180 years really misses the point. The point is about managing them. They have value, and we need to make the best use of that value.

Mr GAFFNEY - You said the deer have been managed and they haven't exploded over that time, do you think the landscape has changed with the introduction of the irrigation schemes, especially going up through the Midlands, which is going to provide a lot more feed? Is there a chance that this might spike the population?

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Mr RIDDELL - I think so. There is more feed out there so the logic would be that the survival rate of the fawns and the sub-juveniles would be greater. They are then recruited into the population and that will increase.

The drought which has confounded that. I didn't hunt deer this year but I spoke to a guy who I used to hunt with last year and he has moved onto a new property. I rang him last week and said, 'How did the deer numbers compare on the new property that you've gone to this year as compared to last?'. He said last year when the drought was on at dusk the deer would be out everywhere. He said at the moment as the bush is full of feed, we are struggling to find a deer. So they have dispersed back across the landscape.

As Greg Hocking said earlier, it is extremely hard to measure them because they are so mobile. If the feed is in the bush they will stay in the bush because they don't like to expose themselves unnecessarily to danger. Someone said they are quite intelligent. On the other hand, if there is a greater weight of nutrition out there, the chances are that they will use that nutrition and they will increase their population if they weren't managed.

Mr GAFFNEY - It will be interesting. In the last year, according to DPIPW's submission about the number of deer observed in transects, it has increased markedly. With the conditions this year will there be a continuing spike observed?

Mr RIDDELL - That could be indicative of an overall increase but I suspect that there might be a fair chance that might go down because Greg said they were doing transects in November/December. We had the driest spring ever in Tasmania last year so animals are out and about all over the place by that time. The conditions were extraordinary for grazing herbivores last year in terms of the pressure that was already on them at that time of year. Normally that sort of pressure doesn't come on grazing herbivores until February-March in Tasmania.

If you are trying to control pademelons, for instance, they are notoriously shy animal, but when the paddocks dry out you can go out and shoot hundreds of them. They don't take any notice of the one next them. If you try to do the same thing in winter, one shot and they are all gone because they don't need to be there. The hunger brings them out and keeps them there even under that mortal danger. There is a whole lot of stuff going on out there which takes a long time to unravel.

Mr GAFFNEY - We heard a while ago that 60 per cent of the deer tagged are probably shot. You probably have some people out there who work really hard at it and are really good at it and they will use up their three. It seems to me if they were looking at getting rid of 1 500 deer per whatever and at the moment we are doing 60 per cent of that. We then have to think that is 900 deer so we still have 600 deer not being shot. Is there a reason to allow those shooters who do get their bag limit to extend that bag limit so that we are getting up to the 1500 deer? Do you see what I mean?

Mr RIDDELL - Yes, I can see that and maybe you could do that by allowing people to purchase some additional deer tags if they show evidence that they have used their three.

Mr GAFFNEY - So they can go back for another three, or another one.

Mr RIDDELL - That is right. From my own experience - I did not hunt deer this year but I have been hunting for 15 years - what tends to happen, particularly if you are looking for a male

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deer - and if you are going to eat fallow deer, a young male deer is probably the pick of them - you will get the February, March period to focus on males, and that is what people do. You will see a lot of does during March.

By the time you get back to them in May and June, they have dispersed across the landscape and they become much more difficult to hunt. It is not just the case of having the number of tags, it is also having the time to hunt them. At the moment, our view is we are not given enough time to hunt those. Some hunters have been quite successful this year, I understand, on some properties and have filled their three tags. I reckon there is a lot of others who have not had the time to do that.

Mr GAFFNEY - Are you the sort of person who, even though you are not planning on going hunting, you will get your licence anyway? There are a lot of fishermen out there who may not go fishing for the year, but they buy their licence because they get it for Christmas or somebody buys it or it is habitual.

Mr RIDDELL - I did not hunt this year and I did not buy a deer licence either but I do have a Victorian game licence and I went to Victoria to hunt. I was in Victoria a few weeks ago hunting over there. I put my resources into going to Victoria to hunt, principally because the option I had for hunting this year was so expensive it was cheaper to go to Victoria. I think sambar is a nicer eating deer than fallow.

Ms RATTRAY - Do you bring it back with you?

Mr RIDDELL - Yes.

Mr MULDER - That is the cost of the landowner saying to you, 'This is what it will cost you to shoot on my property'?

Mr RIDDELL - That is right. The reason I did not hunt was not because I was kicked off the property for doing anything wrong but the property that I hunted on for 15 years was sold. The arrangement I had with the original landowner - there were about 20 of us on the property, and I used to manage a number of them - was that for shooting wallabies and possums throughout the year, we would be able to hunt deer in the deer season for no charge. That was the quid pro quo. The new landowner's view was that we had to hunt eight to 10 times a year for vermin, and he would charge a very large amount of money to hunt deer. I made the economic decision that was not what I wanted to do. It was probably good to have a bit of a break from that place anyway with the new management. That is the sort of decision people are making. There are all sorts of models like that. The model that people do not pay for deer hunting is relatively common, but they have to put their time in on the property which means that someone has to manage them to make sure they do because humans being what they are, some people will turn up every weekend if you gave them the opportunity and other people will just turn up in the opening weekend of the deer season and take the low-hanging fruit.

Ms RATTRAY - Say, 'I have been really busy all the other weekends'.

Mr RIDDELL - Yes, that is right.

Mr GAFFNEY - A last question, what is the cost of a Victorian licence for the season, and what are the limits there?

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Mr RIDDELL - I just paid for one for next year. It was \$55.70 for one year.

Mr GAFFNEY - How many -

Mr RIDDELL - There is no limit.

Mr GAFFNEY - There is no limit. Here it is \$68 for three.

Mr RIDDELL - Yes.

CHAIR - Were there many people the same as you who left that property because of the increased cost?

Mr RIDDELL - Yes, probably three-quarters of the shooters left. Some of them went to other properties and some of them do not have properties.

CHAIR - Do you know whether other people took up the opportunity to move on to that property?

Mr RIDDELL - People did move in, yes. I will not make an estimate of what that guy is making out of his deer hunting but it is a significant amount of money.

Mr MULDER - I wanted to pursue the issue around pet meat. There is a bit of talk about the standards for pet feed and how high they are. Is that about the meat and the hygiene or is it more about the humane killing of the beast?

Mr RIDDELL - It is about the meat and the hygiene and the processing. I imagine it would be the killing as well because you would have to try to head-shoot the animal. If you look at the kangaroo industry, it is mandatory to head-shoot. Anything that is not head-shot is rejected. The shooter can be subject to fairly strong sanctions if they do not. Trying to head-shoot a deer is not the easiest thing in the world.

Mr MULDER - When you are game hunting, body shots through the heart, aiming at the heart more than the head?

Mr RIDDELL - It depends on what your motivation is. If you are shooting a trophy stag you are going to aim at the chest and if you have the right calibre rifle that will do the job. My approach, from when I was shooting, was I always tried to head shoot them because the body damage often did a lot of damage and destroyed the carcass so head shooting was far and away the preferable way.

Mr MULDER - Yes, the ballistic shock waves do a lot more damage probably than the hole itself. You have indicated that they are in balance, or reasonably in balance, they are not doing the environmental damage and the moment you clear them off the native population comes in and does what the deer used to do anyway. At what level is it that they start to become an environmental pest beyond the normal balance of nature or do we let nature take its course and work its own balance out?

Mr TOOHEY - I hate to say it is a very difficult question but it is.

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Mr MULDER - I am not used to asking easy ones.

Mr RIDDELL - I suppose for a gun owner I can only speak from personal experience but what would probably be classified as a low to moderate level in the landscape which is a lot more than the 2.5 per square kilometre that Simon Cameron talked about, would be more than acceptable. That is why it becomes difficult because the landscape becomes spatial and when you look at the modelling the university did, they talked about it being spatial, but it was not really spatial. They did not take into account there are big open areas, that there is bush, and transitional areas between paddocks and bush. There will be parts of the environment, that if the population is high, will get hammered, particularly the transition bush areas but often those are areas that have a lot of sheep in them as well. It is virtually impossible to see that damage from deer in those areas. When you get further and further out into more bush areas, the numbers are quite low and those numbers will never get to a level that they can do significant environmental damage. They might spread out and have a greater range but the nature of the feed will restrict. It will be a system that will control itself in that respect.

Mr MULDER - The biodiversity management we heard about from Simon Cameron, for example, talks about the natural management by grazing which replaced the Aboriginals' use of fire in a lot of areas. That grazing is basically done by an introduced animal called a sheep. Now we have another introduced animal that is competing in those marginal areas. Let us just talk about those transition areas. When do you get to the point where the native animal populations and the sheep populations and the deer populations are so out of balance that one of them starts to starve the other out. If it came to that, I guess I know which one would probably win. That is what I am trying to get at.

At that level, we need to have some idea about when the population gets to the point where it is starting to impact on the grass available for sheep, and the fodder available for wildlife and anything else that goes in there. I am trying to get an idea because I am getting from your evidence it is okay, there is not any great problem but the numbers seem to be expanding so there will come a tipping point when it will start to have the sort of damage that you reckon we are not seeing yet. So I am trying to get some idea about what that number or population density might be and I think per kilometre might be the wrong way to do it. It might be per range of a herd in an area rather than per square kilometre. I am trying to get a feel for when you think control mechanisms might start to be needed?

Mr RIDDELL - Most of the issue I have heard from farmers is, say if you think of the sheep versus the deer issue. If you are talking about grazing grass rather than growing crops - obviously if they are growing crops, they jump over the fence, trample your wheat crop, then that is a problem - where they get annoyed with deer is that they might spell a paddock, so they get the sheep out and the deer will go up. Deer and sheep don't often tend to mix. They will exclude from each other. They will get in and they will take the best pick out of those paddocks. That is where they see the damage and that is where they get concerned.

When you get away from those paddocks and into the bush it becomes quite difficult to understand. From my background as a forester, I spent a lot of years being in the bush and observing things. My observations are that most of the damage, erosion and all of the things that I see around rough country associated with agricultural landscapes, are to do with sheep. If the sheep were excluded and the deer built up to the levels the sheep were and they were uncontrolled, yes, you would get really bad environmental damage.

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Let us say you have a property of 2 000 hectares and you might have somewhere between 100 and 400 deer running broadly across that, the environmental impacts would not be significantly noticed.

Mr MULDER - The thing with sheep is we can control the stocking numbers down to the per hectare, but -

Mr RIDDELL - To a point. Some of the bush grazing is quite extensive. They traverse a wide area. What will happen in those spaces is the sheep will hammer particular parts of that range and might not touch other parts for reasons of access to water or whatever. The whole range management thing is an interesting study and interesting science but extremely hard to get your head around.

Mr MULDER - I think I am getting from you that if it ain't broke yet, don't fix it.

Mr RIDDELL - There are some issues that need to be dealt with. As I said a few minutes ago don't panic yet.

Mr GAFFNEY - Do you think that in New Zealand, the deer are an issue? Do you know much about the New Zealand deer or whether that is a problem there?

Mr RIDDELL - Interesting you asked that because John mentioned it earlier and at the conference I went to in Brisbane in August there were a couple of papers from New Zealanders. One of them specifically was regarding helicopter shooting and success rates across various landscapes in New Zealand. It was obvious, as John mentioned earlier, that helicopter shooting in the open landscapes, the upper Alpine areas, of red deer, was highly successful. They removed a lot of the animals and they stopped helicopter shooting. They have now been looking back at those landscapes and the deer are coming back. They are coming in out of the forested areas. They came to the conclusion - particularly in the wet forest areas, and you are talking about forest areas in New Zealand which are quite dense, more dense than a lot of our dry forest landscapes in Tasmania - their success rate for helicopter shooting was quite low. They have been very successful in some parts of the landscape. If you think of the corollary of that to Tasmania, when you get up around Liawenee and right up to the top of the World Heritage Area and the areas that were burnt in the fires last year that everyone got very upset about, deer in those landscapes would be pretty easy to find. Once you know they are there you could go looking for them. That is when you maybe use something like a helicopter to shoot them or whatever, but there are lots of cons using helicopters and lots of animal welfare issues.

The New Zealanders took their deer population by the scruff of the neck with helicopter shooting but, from what I can gather from this paper that was presented, the success of it was patchy. They used quite a few on-ground hunters as well.

Mr GAFFNEY - My question about New Zealand was from your comment, 'Don't panic, not yet'. They may have used that same phrase - that it is manageable, and then within a period -

Mr RIDDELL - The reason we don't need to panic in Tasmania is because the fallow deer share out landscapes, whereas the deer numbers in Victoria and the different type of deer - sambar deer are forest-dwelling deer and they live in very rugged country that's difficult to get at. A similar thing with New Zealand - they have lots and lots of rugged country that deer numbers

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could build up in. Greg Hocking talked about it earlier. One of the reasons not to import the version is it could live in drier and colder environments and have a broader ecological climate. Fallow deer in Tasmania tend to live in the drier, open, woodland forests around agricultural areas - the same areas we have chosen for agriculture. To a degree they live in lockstep with us. They're not breeding up out of Queenstown, whereas New Zealand is a totally different landscape. Their agriculture is confined dramatically by their rugged landscapes and they have a number of species of deer which could survive in that landscape. It's not really fallow habitat.

Mr GAFFNEY - You may be able to answer this question. Greg spoke about the Mesopotamian deer and that young man from the north-west coast has *Dama dama* deer on his property and he would be wanting to improve his herd with the *Dama dama* deer, not the Mesopotamian. The reason Greg brought it up is they looked into the study and looked at the potential danger it could have to them living in higher altitudes. Do you see any reason - and I believe they can identify there are different species - *Dama dama dama* - I will just call it a D3 deer - couldn't be brought in to improve the herd of someone?

Mr RIDDELL - I don't have any background on that.

Ms RATTRAY - Donald, you talked about the paper the young woman from Tasmania presented around regulatory control in Australia. Is it possible for the committee to have a copy of that paper or is that only available to people who attended the conference?

Mr RIDDELL - I haven't downloaded the proceedings that are available but I'm sure I could get you a copy.

Ms RATTRAY - Thank you. That could be very interesting.

CHAIR - We've talked about the helicopters in New Zealand and the different species of deer. Are there any of the D3 deers in New Zealand?

Mr RIDDELL - Yes, there are. I'm sure there is fallow in New Zealand.

CHAIR - The other deer over there, are they a bigger deer?

Mr RIDDELL - They have red deer which are much bigger. They have sambar which is not that widespread but red deer is the most common deer. They even have elk in some parts of Fjordland. I am not really into the New Zealand deer scene.

CHAIR - Where I'm coming from is a submission saying we should use the helicopters here in Tasmania in the World Heritage Area. Our deer are small, compared to New Zealand where it was successful in some of the open landscapes, but they would be hunting a bigger deer.

Mr RIDDELL - That is right. It is easier to shoot a bigger target and because they were doing it commercially, there was a better return. They do live capture with helicopters for deer farms in New Zealand. As John mentioned earlier, it was a bit like the other industries we have had, people paid a lot of money initially for deer captured over there.

Mr GAFFNEY - It was on television, the New Zealand deer hunt shooting, and it went for about an hour on *Landline* in the last couple of weeks. I think they did some pet food or used it for consumption, but whenever they received an order for 300 or 400 deer, it was the only time it

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was viable because of the cost of the helicopter. They could not do it as a year round profession, it was whenever they had an order in from somewhere that they could cull that many.

Mr RIDDELL - I think I have heard figures thrown around in Tasmania. If you are shooting Bennett's wallaby, you need to shoot about 70 a night to make it worthwhile. Kangaroo hunting on the mainland has zero control of the populations. They do not shoot females for a whole range of reasons. A number of the processors do not take female kangaroos, one being the optics but the other being the size of the animal. It is very much driven by the cost of being out there, the weight of the animal and the return. I cannot see it being any different for deer.

CHAIR - Thanks very much for that, Don.

THE WITNESS WITHDREW.

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Mr MATTHEW ALLEN, TASMANIAN DEER ADVISORY COMMITTEE, WAS CALLED, MADE THE STATUTORY DECLARATION AND WAS EXAMINED.

CHAIR - Welcome. All evidence taken in this hearing is protected by parliamentary privilege. I remind you any comments you make outside the hearing may not be afforded such privilege. The evidence is being recorded and the *Hansard* version will be published on the committee website when it becomes available.

Mr ALLEN - Yes. I am now vice-chairman of Tasmanian Deer Advisory Committee. I have stood down since the submission was written, but they decided I was still the best one to come along.

A couple of things I have taken from being here so far, one of the big things with TDAC is how much the devil reduction has had to do with the appearance of population growth. There is a belief, and the department have some statistics now. They believe the devils did have a take of the young fawns when they were first born, and in the months leading on. That has had some impact on the population. It is still relatively early but we would like to find out more.

Ms RATTRAY - You are saying, Matthew, that the department have some data.

Mr ALLEN - Again, we have only been privileged to that information since these submissions have come in. We were only made aware of that in about July or August, that since the devil numbers have had their facial tumours and their population has gone down, the population has seen some increase in certain areas where devils had a big population.

Ms RATTRAY - It would be worth asking the question of the department.

Mr ALLEN - Yes. Young fawns, when they are born and for the first month or so, are left while the mother eats and then comes back to feed them. They are very vulnerable at that point. Let us be honest, the devils are good at killing. We do not fully understand it yet and it is something that needs to be looked at. Fallow deer are *Dama dama dama*. Our fallow deer are just *Dama dama*. Then there are *Dama mesopotamica*, which is the other sub-species of the three damas.

Ms RATTRAY - We only have *Dama dama*?

Mr ALLEN - Yes. *Dama dama* is the whole fallow deer and then there are the two sub-species. The *mesopotamica* is a much bigger animal, as far as body weight and the altitude. Their antlers are far inferior to what we have.

Up until about 18 months ago there was no DNA marker set up for fallow deer. Over the last three years, nationally, the ADA has set up the markers for fallow deer and DNA. Now you could have a look at them and say the DNA markers from a mainland herd match what is in Tasmania, and does not have the *mesopotamica* markers in it. There is more clarification available now about which animal it is. If someone wanted to try to bring them back in again, we know if we are not bringing in the *mesopotamica*, which most people have had the problem with. They like the higher altitude and their antlers are a poorer quality, from our point of view, and that is where the problem lies.

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Ms RATTRAY - If a deer farmer wanted to bring in from the mainland, *Dama dama dama* -

Mr ALLEN - No, *Dama dama dama* is the overarching fallow deer. *Dama dama* is the sub-species, which is what we have here. The other one is *Dama mesopotamica*. If someone wanted to bring in *Dama dama* and it could be proven that is all it was -

Ms RATTRAY - No *mesopotamica*?

Mr ALLEN - Yes.

Ms RATTRAY - We have the means of being able to narrow it down, and have its DNA?

Mr ALLEN - Yes, it was done by a professor from Canada who specialised in that DNA at the Flinders University in South Australia. A lot of his work was done for the purpose of poaching. If they found the carcass on a property and they found the head at someone's home, they could match the two and say, you are the bloke who shot it. That is what it was set up for.

It is illegal to have a firearm in a national park in Tasmania. I notice you have thought about that but it illegal to have a firearm in a national park, as it stands at the moment. We cannot do that, even to the point you cannot carry it in your car through a national park.

Ms RATTRAY - You cannot carry it your car anywhere.

Mr ALLEN - You can transport it, but the moment you want to go through a national park, you cannot.

CHAIR - Now we fly the helicopters.

Mr ALLEN - It is illegal to have a firearm in a helicopter as it is. You need a special permit to have a firearm, especially a loaded firearm, to then work out of a helicopter.

One of the other things you discussed about the commercialisation of deer is, as it stands, our hygiene standards and what shooters have to meet to sell kangaroo, would not suffice if it was deer, because they have a different gut system. The way the shooters are taught and the way the course is done, fallow deer will not meet that standard. The course has not been designed for fallow deer, for any deer, so that is one of the greater problems. Because of the gut system change, to bleed the animal out so you do not get blood spots in the meat is one of the bigger challenges with that side of it.

Ms RATTRAY - When a person gets a deer and they take it home for their own use, what do they do differently when they are dressing their animal for food consumption?

Mr ALLEN - We have either shot it in the heart so it has been bled, or we have shot it in the head and gutted it in entirety in the field, which under the Meat Hygiene Act you are not allowed to do. The heart and lungs have to be left fully intact, as do the liver and kidneys so that they can be checked. The only thing you can actually remove is the gut bag, whereas we as recreational shooters remove it all. Usually, if it is a trophy animal that you have shot, the heart is destroyed. That bleeds the animal out so you do not have that issue. Whereas when you are commercially shooting, the animal has to be shot in the head and the heart and lungs have to be left intact, so therefore the meat is not bled properly.

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CHAIR - You were saying that devils are probably the biggest predator of young fawns. What other predators do they have?

Mr ALLEN - Really none.

CHAIR - Eagles?

Mr ALLEN - Yes, possibly, but the number of eagles that we have compared to the number of fawns, I think their impact would be minimal. When we had a healthy population of devils the devils could take a number of fawns.

CHAIR - Native cats, I suppose.

Mr ALLEN - No.

CHAIR - They would not be strong enough?

Mr ALLEN - No. Even a feral cat would struggle, I would imagine. The other one is 1080 poison. While deer is not a target of the poison, we have always known there was a certain number of deer poisoned by 1080 as a by-product. With the reduction of 1080, that poisoning has been reduced as well. In the same time as the devils have come down, the amount of 1080 that we have used has come down. That can all be part of why more fawns are getting through and why the numbers of tags required has gone up.

CHAIR - Do you have any rough figures for the fatality rate of fawn?

Mr ALLEN - To be honest, it depends what the department has done and what they do and do not tell us. Over the years they have looked at different things along the way, but I am not old enough probably to go back that far, whether they have or they have not, but not in my time.

Ms RATTRAY - Can you explain to me, Matthew, about the ballot system?

Mr ALLEN - Which one?

Ms RATTRAY - Good question. Which one?

Mr ALLEN - We have two different ballots, one is the Big Den state forest, which is behind Connorville Den. It is roughly 5000 acres and you go in as a party of four and it costs you as a party about \$130. That gives -

Ms RATTRAY - Each?

Mr ALLEN - No, for the group. It is so much for the group entry into the ballot, and then once you are accepted it is so much per person. I think it is about \$30 to put in for the ballot and about \$25 per person. There are 11 positions, so you have from 12:00 on a Friday to 12:00 on a Monday, over the weekend and then the week period as well. That happens 11 times. The den is locked, so you get a key and the group can come and go as it likes, but once in there, most people stay. They get to hunt for the period of their ballot and then when their first year season finishes they are allowed back into that area for two weeks during the second antler season.

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The other ones we have at the moment are the three conservation and regional reserves. They are done on the same theory, but for the second season you can book in and go back into those areas for that whole six-week period if you so wish.

Ms RATTRAY - Every time you have one of those ballot applications you must have a party of four?

Mr ALLEN - No.

Ms RATTRAY - Can you put yourself in and maybe you haven't got three friends who are allowed to go.

Mr ALLEN - Yes, you can go as one, two, three or four, but the number of single people in the Big Den ballot is limited for safety reasons. The more people who know where each other is the safer it becomes. There is a set limit on that. We have just had Parks agree to open four more in the regional and conservation reserves. That has taken about two and a half years to get their approval. Regional and conservation reserves allow in their management plans for hunting to take place. Nothing needs to change it is just getting Parks to agree to it. Parks have a lot of areas that they cannot even access. They are landlocked or they don't have a right of way. These areas that are just sitting there with deer on them that no one can go and hunt because they can't get access so they won't give permission to hunt.

Ms RATTRAY - When you say they can't get access is that because an adjoining landowner has refused to allow access?

Mr ALLEN - Yes, they just don't have a right of way across the properties to access that land. It's landlocked. It is surprising how many they have of those, that they cannot even get access to.

Mr GAFFNEY - Going back to the heritage park you spoke about before - national park, sorry - if that national park borders against a conservation are you are not allowed to take it that way?

Mr ALLEN - If you have a national park beside a conservation area, you are allowed to hunt in the conservation area. If the access is through the national park you can't take a firearm in, so you can't hunt. That is where negotiating with Parks can be hard. We can all find these areas that say they are conservation or a regional reserve, but then until you start talking to Parks and find out what usage they can have or access there is it can be really quite difficult.

Ms RATTRAY - Have things got more difficult since the Tasmanian Forest Agreement?

Mr ALLEN - Without doubt.

Ms RATTRAY - Even though it has been rolled back in some respects? Is that not quite -

Mr ALLEN - No. When the forestry agreement happened we asked Parks for a list of lands that had converted over to their control from forestry so that we could inform hunters of whether they can still access them.

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Ms RATTRAY - Like the FPPF?

Mr ALLEN - Future forests and all that sort of stuff. I'm still waiting for that. I can't tell my blokes you can go and use that piece of forestry because they still haven't done management plans and actually worked out what classification of reserve they are going to get, which makes it challenging. I have no doubt we have some hunters out there who are probably hunting illegally because they just don't know that it has changed land classification. As far as they are concerned it has always been state forest, they had permission and the only permission you need to hunt in a state forest is to buy a game licence.

Ms RATTRAY - The \$68 game licence.

Mr ALLEN - Gives you permission to hunt state forests or a game reserve.

Mr GAFFNEY - Back to the ballot. How does that work? Does everyone put their name in and they just pull it out of a hat? When they say 'a ballot' and you say there are 11 parties or groups?

Mr ALLEN - No, there are 11 ballot periods. With the Big Den they are allowed 44 hunters in that area for one of those periods. Last year I think 183 hunters put in for the ballot, and they literally list 1, 2, 3, 4 their preference of period. We keep pulling the names out until everything is full. Some hunters will say, 'I can only hunt the opening weekend and the last weekend, so that's all I want'. Once they are filled they get removed from the ballot. You just keep drawing it and some people will get one or two opportunities, some will get four or five.

Mr GAFFNEY - Does everybody at least get one?

Mr ALLEN - Yes.

Mr GAFFNEY - Nobody misses out from the ballot?

Mr ALLEN - At the moment no-one misses out. Eventually, we would hope we get to the point where you may only get one period for the time. I believe one of our biggest problems with hunting in Tasmania is we have these property based groups which are very much closed. In all honesty you nearly have to be born into one these days.

Ms RATTRAY - A bit like having a membership for the MCG.

Mr ALLEN - Yes, very similar. You have a certain amount of hunters who have more than one of these places locked up, so they have access to multiple properties, and that keeps a lot of other blokes out of it. It becomes harder for the young bloke to get in to somewhere.

Then you have the problem of state forest and regional reserves. When you come to the second part of the antler season it is in the middle of winter, it is cold; you are basically sleeping in a swag on the side of a track. A lot of people lose interest to go and do that, to maybe shoot a deer. As the last bloke said, deer are not the easiest thing to shoot. They are not like kangaroos where they sit there and head up. You will get to the point on crop protection where the moment you put a spotlight in their eyes they run off in the opposite direction so then you go back to hunting them during daylight hours. Then you go back to spotlighting.

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Mr GAFFNEY - The TDAC, is that a voluntary group? How are you funded or how are you supported by the department because they are quite involved. How does that work?

Mr ALLEN - Years ago, when the deer were captured for the farm there was a levy put on them. For every animal that was captured the farmer had to pay a levy and part of that levy went to TDAC which was what funded bringing Brian Murphy out here. When that program was taken over by the department there was his vehicle and a few things left over that were sold and that has been left in the bank account as the basis of our funding. Each of the hunting organisations that are involved pay \$100 membership. The property such as TFGA, when Gunns were involved, and those sort of things. Forestry Tas do not pay a membership. It is only the hunting organisations that do.

Mr GAFFNEY - Is that just a small gratuity for the secretary? Who does all the work?

Mr ALLEN - That is all voluntary.

Mr GAFFNEY - There is a president and it is set up like a committee?

Mr ALLEN - It is a full committee.

Mr GAFFNEY - You do not get any government funding at all?

Mr ALLEN - No.

Mr GAFFNEY - Is there a club out there that does not have a representative on it or they do not want to? Is it representative of the whole group?

Mr ALLEN - Most of the big associations - so the Australian Deer Association, SSAA, Tasmanian Hunting and Conservation - are on there. There is one, Field and Game Australia, that is not on there. They have chosen not to be a member. Most of the bigger hunting organisations on properties, like Connorville, Charlton, are part of it as well. Years ago when the Tasmanian Deer Farming Association was going they had a TDA seat that is still sitting there but they have basically been defunct until you have inveigled them to get back together. TFGA was there; Gunns was there for years.

Mr GAFFNEY - Is this group, TDAC, the closest ear to the government regarding deer? Are you the pinnacle?

Mr ALLEN - As far as deer go, yes. We do lobby the minister but most of our work - when we wanted to change the seasons - still has to go through the Game Management Liaison Committee. We are a member of that committee and have a seat on that which is ministry appointed but we still have to go through that process. When you're talking about the tags, the male tag can revert to being a female tag. You can shoot three females or one male and two females.

Ms RATTRAY - I wasn't aware of that.

Mr ALLEN - It converts. It can be either/or. It's entirely up to the hunter.

Ms RATTRAY - But it doesn't revert the other way, you can't take three males?

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Mr ALLEN - No, you can only take one male.

Mr GAFFNEY - Say, if that was to be four tags - it has been suggested increasing it - would the Deer Advisory Committee still be saying one male and three does? Is it something you have discussed? If it went to four, would you still want one stag to be your tag?

Mr ALLEN - It's a buck. Fallow deer are a buck, not a stag. We had 13 proposals we put forward to TDAC members to extend the seasons, different tags and those sorts of options. They came up with six options they were happy with and that was the motivator to get the season extended and the extra tag. The biggest downfall we had was we could not get TFGA to agree to extend the antler season for another three months.

Ms RATTRAY - But if they've only got one vote on the committee.

Mr ALLEN - At TDAC level it passed but once we get to the GMLC that's where it fell down. There is an equal proportion of hunter representatives to property owners on the GMLC. North West Hound Hunters, Tasmanian Deer Advisory Committee, SSAA, Hunting and Conservation, and Field and Game are all members. The TFGA has three members and we have Forestry Tasmania and Parks and Wildlife on there for the land-owning side of things. Generally there are not too many times where it is a vote. It is more a consensus of the group. TFGA agreed to the other proposals we put forward, but the extension of the doe season they wouldn't back us on.

Mr GAFFNEY - What was their main reason? It's interesting because we have heard other farmers who would be supportive of that. Why do you think the TFGA would be against that extension?

Mr ALLEN - My understanding was they feel that is where your crop protection tags come in, that they can manage their problems with crop protection. Our argument was that the blokes who are shooting on state forest reserves or where there is a low number and the property owner doesn't get tags, they can't continue hunting because the season is not long enough for them. A lot of properties have the crop protection tags for so long that they don't have a season for antler tags. If the season goes out, there's the crop protection tags for shooting. The average bloke who doesn't have access to those properties doesn't have that ability.

Mr MULDER - Do we have too many deer and do we need to now start reducing their numbers?

Mr ALLEN - It depends whose point of view you look at and where you look from?

Mr MULDER - I was asking yours?

Mr ALLEN - In my opinion one of our biggest problems is the fact that we allow deer farms outside of what we have always called the traditional range. That was one of the things that I believe something like State Growth or someone within the Government said had to happen for fair competition. You could not exclude someone just because they weren't in the right area. We have deer on King Island from a deer farm. I believe something like 15 deer licences were sold on King Island last year. We should not have deer on King Island. They did not swim. They were taken there when they should not have been and they are now a problem.

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Mr MULDER - Do we have too many deer on the traditional ranges, putting aside the ones that have been transported by accidental escape or - as has been suggested to me, at least privately, particularly in my area out the back of Nugent - or we have someone out there who is deliberately releasing them so they have some game to hunt? If we took those things out in their traditional ranges, and by that I probably mean the north-east and the Midlands, do we have too many there?

Mr ALLEN - I believe since the drought and improvement in the way agriculture has changed in the Midlands, there is an appearance that deer have increased. Whether that continues to be the case once we have the better weather out of the way, I don't know. We should always be able to manage the deer within the realms of what the farmer requires. Part of our problem has been that, over the years, to do any of these changes takes a lot of work to get everyone to agree. It is not something that can happen overnight and I think that is our biggest problem. If we realise we are having a drought or whatever, we should be able to manipulate the seasons and the tags as required. At the moment, under regulation you can change the season very quickly and easily, but to change the bag limit you need to go to legislation. That takes a lot more work. Yes, you can extend the season pretty much within 14 days.

Mr MULDER - It is within the realm of the committee to recommend such changes if you give us the case. With the range, we talked a lot about open country or transitional country, but we also talked about state forests. In your experience are deer more likely to be ranging in the forests, in transitional country or in the open grazing areas?

Mr ALLEN - They like the semi-open areas.

Mr MULDER - The traditional areas. Having widespread culls in state forests is probably looking at a smaller population than in those transitional areas?

Mr ALLEN - State forest has always been looked at as a fringe area for deer. Most state forests have a number of deer, but not the huge numbers that prime agricultural land tends to have. That is just what fallow deer prefer.

Mr MULDER - That is where the issue comes about. If we are going to reduce the numbers or see the need to reduce the numbers, then somehow or another we are going to have to engage more with private operators, more than just issuing more tags for the forests - if that is where the deer are.

Mr ALLEN - Yes. We are selling more and more licences every year, but the take is not going up, because either they don't have the areas to shoot or the time to take to shoot them. If we can get them more time into those areas -

Ms RATTRAY - Season extension?

Mr ALLEN - That sort of thing, then we have to increase the take. That is what it is all about. Whether it is on private land or public land, the more deer we shoot the better off we are.

Mr MULDER - Extending the season sounds like a really good idea. In other words, let us have an open season for a while until we get numbers down to what people think is acceptable. The dilemma you face as a society is we have a community problem, or an alleged community

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problem, but then we have that competing with the rights of individual landowners to decide whether culling occurs on their land.

Mr ALLEN - If the farmer next door to you does not want to shoot his deer, there is not much anyone can do about it. That is his decision. This is part of it.

Mr MULDER - All you need is three or four of them in a row and you have an open range with no control.

Mr ALLEN - You only need one on some of these properties.

Mr MULDER - Unless you do what we used to do with the wallabies on the farm - drive up the fence line with a spotlight at night-time and take them as they crossed.

Mr ALLEN - If you have big property, 10 000 to 20 000 acres, there is a lot of deer in an area no-one can do much about. That is part of our problem, especially with deer on King Island. One of the farmers wants the deer there because he wants to hunt the deer. He manages them. To eradicate them, we cannot do that without his help. The TDAC has always had the policy that, outside the traditional range, deer should be eradicated from any of those areas. They should not be at Waratah or Nugent. That is not where they were.

CHAIR - Bruny Island?

Mr ALLEN - Bruny Island, yes.

Mr MULDER - In Nugent there is some pretty good anecdotal evidence that people are deliberately releasing them. They are taking them from other areas as fawns and then leaving them free to create a hunting population. That is where your trouble would come, even if you got rid of the farms. That is accidental escapes; then you have deliberate releases.

Mr ALLEN - We have had plenty of deer farmers over the years who have just opened the gates and let them go. When there was no money in them anymore, it was easier to open the gates than to feed them and look after them.

Mr MULDER - You would be of the view that extending the season and lifting the bag limits are ways we could start to deal with increasing numbers?

Mr ALLEN - Definitely, and giving us more access to these areas that have been locked up for so long. Under our management plans, at least with the regional and conservational reserves, we could hunt there this year if Parks would agree to it. There is no reason it could not. With the changeover there are still a lot of areas in the grey area they really do not know what they are going to do with or how they plan to manage them.

CHAIR - Thank you very much, Matthew.

THE WITNESS WITHDREW.

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Dr SALLY BRYANT, MANAGER, SCIENCE AND PLANNING, AND **Ms JANE HUTCHINSON**, CHIEF EXECUTIVE OFFICER, TASMANIAN LAND CONSERVANCY, WERE CALLED, MADE THE STATUTORY DECLARATION AND WERE EXAMINED.

CHAIR - Welcome. All evidence taken in this hearing is protected by parliamentary privilege. Any comments you make outside the hearing may not be afforded such privilege. The evidence you present is being recorded and the *Hansard* version will be published on the committee website when it becomes available.

Dr BRYANT - The Tasmanian Land Conservancy is a non-political, private environmental organisation that buys and manages land in Tasmania specifically to protect native species and ecosystems threatened with extinction. Our lands span approximately 20 000 hectares and are registered with a conservation covenant on title which has been jointly signed by the State minister for the environment.

We, as an organisation, are seriously concerned that fallow deer are a species well known for causing environmental harm, are now established in Tasmania, growing in number and spreading in range. The Tasmanian Land Conservancy is willing to work with the Government and landholders in undertaking whatever urgent measures are needed to order to significantly reduce fallow deer numbers before the situation becomes irreversible.

The point we wanted to make is that we are a private landowner. In total, the landowning we hold is over 32 000 hectares in scope, so as a private landowner we have a unique position to take. Other landowners that are impacted by fallow deer, I know, have made similar submissions to the committee.

It is terrific to be able to have the opportunity to put our submission and to be heard in relation to the matter. We are happy to take questions in relation to it but I would say, having heard a little bit of the evidence prior to this, there are a couple of things unique to our organisation that may not be entirely clear in the submission.

Extending the length of a season potentially impacts things like other uses of our land - things like tourism and those kinds of things. If a season goes for five months, for example, it puts at risk, potentially, other uses of that land. It is very difficult to have hunting as well as tourism operations, as I am sure you can imagine, interacting in the same space.

CHAIR - What sort of tourism operations are you referring to?

Ms HUTCHINSON - We have a fly-fishing operation on one of our properties. That is an important resource for the operator and for the economy in Tasmania, having tourism operations. There are walks and those kinds of things being planned. Mountain-biking has been trialed in some areas. A lot of the lands we own with deer have the potential for tourism. One of the concerns in my mind, having listened to the potential for extending the time a period might be, is that that may cause concerns in relation to other uses that may not be consistent. This is certainly the case in relation to the safety of our staff on the properties when we are doing conservation work - things like fencing, weeding and those kinds of things.

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It is a concern having staff out in the landscape where there are shooting activities. Potentially extending the period of time of that permit activity is not something consistent with the way we would hope to manage the land.

Mr GAFFNEY - I have read the submission and I understand where you are coming from, but you say your preference is to have this species permanently removed from the land, on one hand, but on the other hand you are saying you don't want to extend the shooting season. I wouldn't think the Tasmanian Land Conservancy group would advocate poisoning or any other method. How do you suggest we manage the stock if you do not want to extend it?

Dr BRYANT - You may remember or have noted that one of our recommendations was to have a statewide cull. Instead of proceeding with the recreational deer shooting and crop protection as it currently is, to recognise there is a serious issue with increasing deer numbers and for the Government to organise a statewide reduction in fallow deer. We would be very happy to have our properties included in that process.

Mr GAFFNEY - How many of your properties currently border hunting clubs? Do you have land with hunting clubs right next door?

Dr BRYANT - We currently have a table in our submission that shows all of the properties and their size with fallow deer, and also the properties where we have recreational hunting and also issue crop protection. There are various reasons some properties do not have shooting. It is not because we do not want to reduce fallow deer but it is problematic for us to have shooters there. Most of our permanent reserves border national parks and private lands of high conservation significance.

Mr GAFFNEY - We have heard of national parks, they cannot access it that way.

Dr BRYANT - They cannot access?

Mr GAFFNEY - They are not allowed to carry guns into national parks.

Dr BRYANT - Unless authorised to do so.

Ms HUTCHINSON - Authorised officers can.

Mr GAFFNEY - Government authorised officers.

Dr BRYANT - The Government could authorise a cull of fallow deer and authorise shooters to undertake that activity on behalf of the government.

Mr GAFFNEY - You would consider, if there were a statewide cull, there would be no need to extend the length of the deer season.

Dr BRYANT - It is very problematic, as Jane indicated, for us to have shooting on our properties. It is an OH&S risk for us because it is not only licensed shooters. Illegal poaching is a very big issue. Damage to our properties from illegal hunting is a big issue and it also negates us from doing the work we want to do on the properties. For example, on the Five Rivers Reserve, we allow shooting on two of the five properties making up that reserve. However, we are on the other three parts of the reserve almost on a weekly basis and cannot afford to be

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working in an environment where shooting is being undertaken. It is hugely problematic for us to be working and managing our properties with shooting.

Mr GAFFNEY - The length of a season is not going to have any impact though on a poacher.

Dr BRYANT - No, that is right, but the length of the season at the moment is five months, in effect. It is a significant amount of time, particularly during the summer months when it is the main time we are out weeding, doing our monitoring, doing our recreational work, having visitors and members on our properties. We have recreational shooting happening on our properties five months of the year.

CHAIR - Not on all your properties.

Dr BRYANT - Not on all our properties. Sometimes, for example, some properties are close to settled areas. It is an OH&S risk for us to have shooters close to housing, and some of our properties are remote and difficult to access.

Ms RATTRAY - In relation to your properties, I have the list in front me. On page 2, there is no shooting on a number of areas such as Swansea, Swansea-Bicheno, and Bronte. For Bothwell it says peri-urban, so that makes sense. Can you give me some reason other than that you are going to be working on them? I acknowledge it is an issue, but when you are not working on them why wouldn't you allow hunting on those properties?

Dr BRYANT - You probably would have gleaned from our submission that to organise and facilitate recreational hunting is time consuming. We as an organisation are committed to conservation and our focus is to undertake conservation work. We can only facilitate so much of our time to other activities, and to organise hunting on a range of other properties is another layer of complexity for us. You may appreciate that recreational hunters will approach us individually. Some will come in groups, some ring at night, some ring on the weekends, some ring all through the day -

Ms RATTRAY - Sounds like you could be a member of parliament.

Dr BRYANT - Some knock on the door and there is only a certain amount of time we can devote to facilitating our private properties and opening them up to shooters. You can also appreciate there are other issues that come from recreational shooting or illegal shooting. We have damage to properties, mess left, damage to infrastructure, gates and keys that are not replaced or not returned. It does come with a lot of administration.

Ms RATTRAY - It is more of a policy decision?

Dr BRYANT - It is not a policy decision and it may well be we open up more of our properties if we determine that is the only course of action to us to have fallow deer reduced in number. This issue does go beyond just Tasmanian land conservancy properties because it is becoming a larger and statewide issue.

Ms HUTCHINSON - You will also see in that table most of the high-density areas have some form of shooting on them. There is only one and that is a technical reason in relation to access and things like that.

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CHAIR - I am a bit confused. You say you need to have a statewide cull but then you will not let people on your property, so how could you have a statewide cull?

Ms HUTCHINSON - We absolutely would. If there was a statewide, co-ordinated cull, we would be happy to be part of that, no doubt.

Dr BRYANT - We would be happy for that to go ahead and we would withdraw the conservation work we are doing for the period of the cull.

CHAIR - You would still have issues where you say you are close to residential areas?

Ms HUTCHINSON - Those issues would have to be managed by the statewide cull. I am sure they apply in all areas. You would have to ensure however the cull was co-ordinated, the main concern would be human life to make sure that was not an issue. One of the properties in that list is right next to a main highway, so you would have to make sure there were measures undertaken so there was no risk to the public and human safety. That is the main concern in relation to a statewide cull. Other than that, we would be very happy to participate in that activity.

Mr GAFFNEY - How do you see a statewide cull operating or occurring? What do you mean by a statewide cull? Is it okay, everybody goes out this week? What do you mean by a statewide cull? I think I know what you are inferring but the management and practicalities of that -

Dr BRYANT - It is huge and it would have to be organised by the state government. The other options are to increase the deer season and increase the number of shooters for recreational shooting and crop protection. There are two alternatives. One prolongs the amount of deer in the environment and the other can more quickly reduce the number of fallow deer and maybe keep those numbers under control. If you were to ask us, can we eliminate fallow deer from the environment, that moment has passed and we are well aware of that. The numbers need to be drastically reduced so they can be maintained at a very low, non-threatened and non-invasive level. A statewide cull would need to be organised in terms of hot-spot areas over a period, targeting different-aged animals. That would be a matter for the government, not for us, to recommend the methodology.

Mr GAFFNEY - It is interesting that farmers can get permits for crop protection.

Dr BRYANT - As we do.

Mr GAFFNEY - Your crop is their environment, so how many permits do you ask for a year to protect your properties?

Dr BRYANT - The number of permits are regulated by the government and they issue us with a number of crop protection permits depending on what their estimate of the density of fallow deer are. They issue us with the permits and we then return the paperwork when the tags have been filled and that is how the process is administered.

Mr GAFFNEY - Do you ever ring up and say, 'We need more permits'? What response do you get from the government?

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Dr BRYANT - My understanding - and it's not my role in the organisation to perform that function - is the government is very compliant and very happy to issue us with more crop protection tags.

Mr GAFFNEY - While I understand the idea of a statewide cull, with your land - TLC - you need to be able to access it at more times because of the other activities you want to run on your properties. You need to have a more intense shoot out over more periods, but there's nothing stopping that from happening, is there?

Dr BRYANT - No, but fallow deer are not confined to the boundaries of our properties. They can range over huge distances. Shooting them on our property in many ways is like dealing with feral cats. If you're in an open system, fallow deer will keep coming onto our property from neighbouring lands, unless the same happens.

Mr GAFFNEY - And that's why you want them to be removed as partly-protected species and put as a pest?

Dr BRYANT - That's right, an invasive pest.

Mr GAFFNEY - As you well know, you should not be able to dictate what somebody can do on their private land no more than they can on your land. If you have a property next door to you that likes deer and wants them to be there, they say they are part of the habitat, there's not a lot you can do.

Dr BRYANT - There's nothing we can do. It's hugely problematic when you're dealing with an invasive species that can move across the landscape - very similar to feral cats.

CHAIR - We have heard other people say they think deer are being controlled on other properties, do you believe the numbers on your property are increasing? How do you come to that assumption?

Dr BRYANT - We don't monitor specifically for deer but we detect deer on our monitoring cameras. To have a population estimate we would need to set up specific deer monitoring, which we have not done to date, but we have carnivore monitoring and cameras. To give you an example, on our Five Rivers Reserve, which is in Bronte in the Central Highlands - that reserve covers approximately 11 000 hectares and is in the core deer high range - we have 42 monitoring cameras out for fauna. We have been monitoring Tasmanian devils as part of the Save the Tasmanian Devil Program for three years. We established those cameras three years ago and have them out in the landscape. At 16 camera sites we pick up fallow deer consistently. I have taken some of the camera photographs and laminated them so you could see deer and stags to show you the types of photos we get on camera.

CHAIR - But you would expect to see deer on those cameras, though?

Dr BRYANT - Most of the cameras are set in forest. I noted the previous speaker mentioned deer are a grassland species. They certainly feed on our grasslands but most of our monitoring cameras are in the forested areas - the high altitude woodlands and forests - so that's where we are picking up deer. We have now picked up deer in areas where we haven't seen them to date - on Skullbone Plains and moving into the World Heritage Area via Lake Ina where we have never detected them previously.

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CHAIR - We did hear from one of the gentlemen who said deer are a shy animal and that they will stay in the forests unless they have to come out looking for food. He said they live in the wooded area so it's not uncommon for them to be inside the forest area.

Dr BRYANT - No, that's to be expected. They are very flighty and very shy - that's what we have observed.

Mr GAFFNEY - The other morning at 8 o'clock I was travelling on Panshanger Road, between Campbell Town and Longford, and there were four deer 40 metres into a farmer's paddock, quite a distance away from woodland. You would never see that 15 years ago.

Dr BRYANT - An issue we have is in the winter, driving back at night from the Central Highlands, we are now seeing deer on the road. We have had one near miss with a staff member with a large buck coming out onto the road. It is of concern to us that now deer are being seen on the roads. Also two weeks ago we saw a dead deer on the side of the road just past Miena. These observations are becoming far more frequent for us, which reinforces that deer are being seen more frequently in the landscape.

Mr GAFFNEY - The statewide cull - we are trying to determine whether you think there should be an increase in the number of deer that are culled each year and that could be done on a statewide basis because we heard before that of the tags that were sent out only 60 per cent of the animals are killed. We either have to lift the percentage rate or increase the number of licences to shoot.

Dr BRYANT - It is obvious that the current administration is not working and that deer have become established. They are moving through areas that are currently not being managed. How you then decide on trying to bring that population back under effective control is an issue of serious deliberation.

Mr GAFFNEY - You are saying it is costing you to manage, have you ever considered parts of your tracts of land being managed by a hunting club so it is managed by people who know how to at least contain the herd numbers?

Dr BRYANT - With respect, the one thing we are not short of in our organisation are people who approach us wanting to hunt. It is overwhelming to know how many people are genuinely very keen to hunt fallow deer. For us to use hunters is not a problem. There are a lot of hunters out there. Internally, we have close connections, and our own hunters who we trust, and we facilitate on a regular basis. In the Five Rivers we have a hunting group who have been on that property since it was owned by Gunns Limited and we have maintained that deer stalking group out of respect and continuity of the people who are in that group. On Silver Plains we have inherited and maintained three entrenched hunting groups. On Jinx Tier and Soldiers Marsh we inherited the Bagdad Field and Game Hunters and for several seasons we facilitated that group in hunting. We could safely say we have been really co-operative and have welcomed good and respected hunters on our properties to reduce fallow deer numbers humanely and legally.

Mr GAFFNEY - My point is you only raised \$7 128 from the management and it has cost you - we have heard numbers from other clubs where the hunting club is getting quite a lot more than \$7 000.

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Dr BRYANT - That's right. We charge a very nominal amount of money.

Mr GAFFNEY - That is the difference between shooters and hunters and managing because surely some of the problems will remain if cost and funding is an issue to have a group to go in there and manage it so there is a return on investment to get rid of more deer and to return an investment to your organisation.

Dr BRYANT - Our preference is to not have deer on our property because deer cause an environmental impact. Our properties are the poorer and the Tasmanian environment is poorer for having fallow deer on our properties. Our preference is to not have deer. Perpetuating a recreational activity by making it a commercial venture is or could be problematic. Another point we may put forward, with respect, is that the money that is made from fallow deer does not go back into the environment for repair works. It becomes income or revenue or profit. From our position the environment is bearing the cost of damage that will not be repaired but will become a commercial venture.

We have thought about putting up the fees; in fact it is an option for us as a private organisation to generate greater revenue and it is very attractive. It probably would mean that the 60 to 70 local Tasmanian hunters who we facilitate on our properties would not be able to afford that fee so we would be excluding them from that recreational pastime so we have deliberately kept the fee low to facilitate people who have a lasting and long connection with those properties that we inherited and who we trust. For us to put up the fees, particularly for families, would be cost prohibitive.

Mr GAFFNEY - I gather you are allowing them to continue their activity but you are not allowing others to join. To me it seems like it has been a traditional thing. Yes, you have the property now and they can continue with their hunting activity but we are not allowing other people to join.

Dr BRYANT - No, because we are increasing our property portfolio on a regular basis and we will be bringing in new hunters when and as we need. For example, Bruny Island which is a growing and significant problem for us because our reserve is a marsh land and our monitoring cameras this year picked up deer wading in the marsh land on nearly every camera site. We will now have to get together shooters for Bruny Island to reduce deer numbers on that reserve.

Ms RATTRAY - A question in relation to your recommendation on page 1 around the government aligning with other states and territories in its recognition of fallow deer. Does every other state and territory in the country class deer as a pest?

Dr BRYANT - No, they do not but in Victoria and New South Wales and at the Commonwealth level they do. If we look at the Commonwealth level on the EPBS act there was a nomination to have five or six species of deer, including fallow deer, sambar deer, rusa deer, listed as a key threatened process. That nomination was not accepted at the time but it has been redeveloped. I noted on the Commonwealth website, and for the members of this committee to look at their leisure, that the Commonwealth has now acknowledged that deer are causing environmental harm and would be willing to look at a resubmission of that nomination.

Ms RATTRAY - We have heard some evidence today that sheep also cause destruction. Have any of your properties any sheep grazing on them?

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Dr BRYANT - No. Not legally. They have in the past but they do not now. They have rabbits grazing on them illegally but not sheep or livestock to my knowledge.

Ms RATTRAY - That is okay. I wondered whether there was any feral sheep still hanging round on some of those properties that were not rounded up.

Dr BRYANT - I stand corrected. We have one property in Cradle Mountain that has had cattle grazing on it and that is at the Vale of Belvoir and in our submission we have now noted fallow deer moving on to that reserve so we do have one reserve with stock grazing.

Ms RATTRAY - We cannot put some of the damage down to sheep on your properties, only on others.

CHAIR - Thank you very much.

THE WITNESSES WITHDREW.

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PROF. TED LEFROY AND PROF. CHRISTOPHER JOHNSON, SCHOOL OF BIOLOGICAL SCIENCES, UNIVERSITY OF TASMANIA, WERE CALLED, MADE THE STATUTORY DECLARATION AND WERE EXAMINED.

CHAIR - Thank you for your submission and making time today. All evidence taken at this hearing is protected by Parliamentary privilege. any comments you make outside the hearing may not be afforded such privilege. The evidence you present is being recorded, and the *Hansard* version will be published on the committee website when it becomes available.

Prof. JOHNSON - I would like to make four main points about our submission. The first we argue is that Tasmania's natural and agricultural landscapes have the potential to support a much bigger deer population than currently exists. There is an opportunity to avoid costs to agriculture and the environment in future if we manage deer to prevent their increase and expansion.

In a study published last year we tried to model the magnitude of that potential increase and came up with some numbers that were a little bit startling. Deer could occupy close to two-thirds of the state, and their abundance could increase to the extent that we might have a total population of something like one million. It is not a surprising number, I do not believe, if you compare the population density that implies with the density of deer in other parts of the world. It is quite typical. Many of Tasmania's environments are very suitable for deer, even though deer have not existed in our environments until recently.

Ms RATTRAY - They have adapted well, then.

Prof. JOHNSON - They fit in. Fallow deer is a versatile species. It can live in a broad range of habitats. They have a broad diet. As we have heard, they can be skittish and shy, but they are also capable of being bold and exploratory, and they can expand their range quite quickly. I think that is happening. Some of the other submissions I have read have referred to increases in deer, and some of those have quantified that. I think the prediction of ours is not outlandish. It might be coming to pass in the first stages.

My second point is if we let that happen, we would be bearing a much greater cost, both to agriculture and the environment than at present. We are particularly concerned about the potential impact of deer on sensitive environments in the World Heritage area. There is the risk that the impact of the deer could compromise some of the World Heritage values. That could happen quickly, particularly if the effect of deer interacts with other changes, like increased fire.

We are already seeing more fire and hotter fire in the World Heritage area. That is very damaging for plant communities like some of the native pine stands killed by fire and have to regenerate rapidly, in one generation, in order to replace the stand. Deer are very likely to browse those regenerating plants. If that is the case they could, essentially in one blow, convert a pine stand to a grassland or a heath.

We could face the problem of losing these things before we have properly understood the process forcing that to climb. Deer could do this by themselves, but the interaction of deer and fire could be much more dramatic. We should try to contain the deer population and limit its extension into those sensitive communities while we have the chance.

The third point is we do not believe the current management system is - it is not designed and it is probably not capable of preventing that spread. The goal is sustainable management of deer,

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not prevention of increase or eradication where that is possible. On the margins of the range now or when deer first make incursions into sensitive areas, eradication is possible. It is not possible where deer are well established at high numbers. We need to be a little bit proactive about thinking about conducting eradication programs at strategic moments to prevent these large expansions and impacts.

The final point is, unfortunately, we don't know very much about deer in Tasmania. Speaking as an ecologist, the ecology of Tasmania's deer has not been studied, other than in a piecemeal and almost anecdotal fashion. We need a lot better information.

Ideally, that information would allow us to create distribution and ecological models that can be used to predict where deer are likely to go next and what level of effort might be needed to contain that increase.

Prof. LEFROY - The reason we undertook that study a few years ago was, firstly, that the Department of Primary Industries estimates of deer population had increased from around 7 000 in 1970 to about 20 000 in 2000, so it had tripled in 30 years. At the same time, we had been working with landholders in Tasmania and Victoria. Both were reporting significant increases in deer, they were coming across increased numbers.

The second thing I point out is the estimate of the upper limit of carrying capacity in Tasmania. It sounds alarming but the sheep population in Tasmania was up to five million in the 1990s. It is down to about two million now. It is not outside the bounds of possibly. The purpose of that study was looking at scenarios for the future with and without management. While that is unlikely to occur, it is within the bounds of possibility.

The third thing is that, now they are here, deer are probably here to stay. One option we have suggested in our submission is considering Tasmania in zones. There is an area in the Midlands regarded as the traditional zone. We think between those interested parties - the government regulator, landholders, hunters, conservation groups - it is possible to come up with zones in Tasmania where they were acceptable at certain population levels and zones where they should be reduced, if not eliminated. It is possible the acceptable population numbers for hunters, conservation groups and farmers may coincide. This is why we suggest a management regime jointly developed by all of those parties, led by the Government regulator, may come up with a satisfactory way of zoning the island and managing populations within those zones.

To finish on the same point as Chris, the reason we undertook the study is we could find no other study examining the likely future of the deer population in Tasmania and there is a dearth of evidence. We really don't know how many, their range and, particularly, their rate of increase. An evidence-based policy developed in partnership with those four key stakeholder groups - the hunters, the farmers, the conservation groups and the regulator - we think it is possible to come up with an option, which is where Tasmania is in a unique position.

In Victoria and New South Wales they have to deal with populations moving across boundaries. Tasmania is bound; it is experiencing an increase in the deer population, as is the case throughout south-eastern Australia, New Zealand and New Caledonia. It is a phenomenon around the region but we are in a unique position of being able to come up with what may be a satisfactory management regime.

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Mr GAFFNEY - That is interesting. How long would it take for you to come up with a satisfactory study to provide enough evidence to come up with some solutions?

Prof. JOHNSON - I think we could go a long way in three or four years, particularly if that involved collaboration with scientists already on the ground dealing with deer problems in Tasmania. If we harness that expertise, as well as put in some extra targeted funding, we can examine some of these specific questions. Three or four years - let us say three years - is a reasonable timeline for shifting the knowledge base from very little to something reasonably solid to be used in management.

Ms RATTRAY - Do we have three years? That is the question, isn't it?

Prof. JOHNSON - Yes.

Ms RATTRAY - Do we have time to wait for that information?

Prof. JOHNSON - That's a dilemma. We also argue for management change and that could happen quickly. From our point of view some things are obvious, for example, too many restrictions on deer control at present. It seems landholders have very little freedom to manage deer on their land.

Ms RATTRAY - Hence your recommendation.

Prof. JOHNSON - Yes, and particularly where they can see sensitive fauna or flora being affected by deer, or at risk, and where even a small number of deer could have large impact. It is hard, it seems to me, to use the current management regime to conduct control where it's clearly warranted. A freeing-up of the management system would be very useful. Attention to surveillance and reaction to incursions where they occur, such as on Bruny Island or in the World Heritage Area, is essential and we should be doing so now. What that requires is a freer hand for government and landholders to react when they see problems at an early stage and prevent them from becoming intractable.

Mr GAFFNEY - I don't think we need to be too hard on where we have come from in 30 years. Three or four years is not a long time, if you think about what was happening. We heard earlier this morning from John about the 1980s, when it was open war between whether it was going to include farmers, deer farms and shooters. There was little cooperation or consensus. There was a lot of media coverage about poachers. In the scheme of managing a species that has been here for many years, the numbers are now significant. With what is happening through the Midlands with new sources of food and water, it is time for the next step. I am not overly concerned about three years, if that's what is needed to have a decent study, providing evidence for management and control for the next 30 years.

Prof. JOHNSON - It's worth nothing the other states are in a similar position. They're only just beginning coordinated research and management experiments, testing what they can achieve. For example, using hunters to reduce deer populations. Tasmania is not behind in this and we can probably get ahead.

Mr GAFFNEY - You commented on the islands - Bruny, King and Flinders - and with what we have heard from the TLC, do you think there is potential to eliminate a species such as deer

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from an island? We tend to put a lot of money into other evasive species we come across to try to protect land, so it is worthwhile doing a Bruny Island cull?

Prof. JOHNSON - I would say so, yes. The key thing is attacking the problem while their distribution is limited. The challenge for deer is they can move very quickly from the point of introduction. The problem with eradication is you have to get every last one, or at least every last pair. That is more feasible when numbers are small and they are still close to the point of introduction. It should be feasible.

Mr GAFFNEY - If the population on Bruny Island was not regarded as a trophy for sport and recreation, as it is on the mainland - if it was, you can shoot the deer in the rut season, or you can shoot the mother and the fawn. As bad as it might sound, the mother and the fawn have to be eliminated. It's not a case of letting them breed, so it would have to be a concerted community response to say, 'Do we want deer on this island or not?' and treat them like a pest.

Prof. JOHNSON - Exactly.

Mr MULDER - Are there any prospects on the horizon for biological control of these deer? We have seen several iterations of calicivirus and now there is a new biological control on rabbits.

Prof. JOHNSON - I'm not aware of anything. There are very few examples in Australia and throughout the world, of effective biological control of a mammalian pest. It worked with rabbits, partially, but that is the best example we have. It would be very unlikely we could come up with something for deer that would solve our problem. It could create other problems with deer farms. It would be difficult to find some kind of biological control that was very specific to deer and would not affect other livestock.

Mr MULDER - There is a lot of work in neutering through viral means.

Prof. JOHNSON - Yes and there is several decades of research and hope about that, and so far nothing has come out of it.

Mr MULDER - The best opportunity would be if we could find one for cats. It would solve 90 per cent of our problems and then we could think about adapting it.

CHAIR - You are saying it could reach one million later on. Talking to the sporting shooters and other witnesses, they seem to think they are managing the population now. They never came out to say they thought it was an explosion. An estimated 400 000 in the state, that is a 600 000 increase.

Mr GAFFNEY - 40 000.

CHAIR - They seem to think they are managing.

Prof. JOHNSON - I have never seen a consistent set of numbers where there has been some kind of standard approach taken to counting deer or recording their presence that doesn't show some increase.

CHAIR - How did you come to that number? How did you estimate it would come to that?

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Prof. JOHNSON - There are a couple of elements. One is to try to define the suitable distribution for deer in Tasmania, based on climate. At the broadest level, where a species occurs is a function of temperature, rainfall, frosts and factors such as that. Those things can be modelled well. Fallow deer in mainland Australia have been introduced to many different environments across a wide climate range. We have good information on where they do well and where they fail. We created a model based on that and then projected that model onto Tasmania to provide a set of boundaries about where deer could occur, which is a larger area than where they do occur.

Then we tried to define what we thought was the maximum abundance deer might reach anywhere and then scale that according to the suitability of the climate. The model then let deer populations grow to that level. It describes our best understanding of what would be the natural increase of deer.

CHAIR - That is taking into account the shooting?

Prof. JOHNSON - We found the current level of removal does not make very much difference. The reason for that, particularly over the last decade or so, it seems the numbers removed have not reduced population growth, given the survey data produced by the state Government. If we take a starting population of 40 000, which we think we might have now, and then allow for the removal of the number being removed at present we can still calculate the remaining potential for increase in that population and if it is still positive. Then we can say, if they are going to increase, how high could they go and where could they go? The model tries to define those parameters. At the end of it, you can run this for 100 years and get a number and the number is something like a million. We would have to increase the hunting rate a lot, now the removal rate, in order to mop up that surplus capacity and the population, or increase. What our figuring suggested is, at present that is not happening, we are not doing that.

When we put all these biological parameters together, we could not see a reason deer were not going to increase further and we then said, how far and how much, received the number. It seems to be borne out by some of the most recent census data, such as it is.

CHAIR - Thank you very much for coming along today and making yourself available. We appreciate that.

THE WITNESSES WITHDREW.

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Dr ROBERT JAMES BROWN, PRESIDENT, BOB BROWN FOUNDATION, WAS CALLED, MADE THE STATUTORY DECLARATION AND WAS EXAMINED.

CHAIR - Welcome and thank you for your submission. All evidence taken in this hearing is protected by parliamentary privilege. I remind you that any comments you make outside of the hearing may not be afforded such privilege. The evidence you present is being recorded and the *Hansard* version will be published on the committee website when it becomes available.

Dr BROWN - I have a fairly simple proposition here. Not being an expert in the deer industry, but as with other witnesses I note the deer population in Tasmania is not only growing but is expanding rapidly. How that is managed in the traditional deer area east of Oatlands is not my submission. My submission is concerned that the deer will expand into the World Heritage Area and national park systems, particularly in western and southern Tasmania, and that will become a management problem because of the ecological considerations there, which is going to be very, very expensive for the state. Eradication will become well nigh impossible if they become established, so prevention is better than cure.

The maps I have seen before the committee generally say where the deer are, although there is no defining of this. Reading other witnesses, we know they have just in the last two or three years become established on Bruny Island as a result of an escape. I add to previous witnesses by saying there is Bruny Island with a \$500 000 cat eradication program on the taxpayers. It would be a very wise thing to have the deer eradicated early rather than become a big problem on Bruny Island, which is becoming internationally renowned as a birdwatcher's attractant. Birdwatchers bring a lot of money into the state and Bruny is particularly attractive because the forty-spotted pardalote, swift parrot and other rare birds there. They have a burgeoning industry and employment based on that. The deer will inevitably impact on that if allowed to expand on Bruny.

My proposal coming out of the submission on behalf of my foundation is that the deer be controlled and confined within the current area, or east of an area demarcated. I have brought along a map of the Lyell, Marlborough and Lake highways. This is to put some definition into a line that may be used to ask, 'Should we allow deer to extend beyond a very clear, easy demarcation zone?'. Some deer are marginally to the west of that line on the central plateau, but that could be controlled now, whereas in 30 or 40 years time if the deer have extended through Cradle Mountain into the Tarkine and south into other areas of the World Heritage Area, there will be no eradication. It will be a very expensive job of culling and confining numbers, as has been found in New Zealand.

The deer are in the newer parts of the World Heritage Area which have been added since 1989 on the Great Western Tiers and in the eastern central plateau. Part of those areas adjacent to the World Heritage Area have been deer hunting areas for some time. I think this is a case where the culling of deer, whether for recreational or business purposes, and the extreme importance of the World Heritage Area to Tasmania's economy, coincide. Keeping a line such as this as a defined line beyond which deer should not be able to expand would be a very wise piece of future safekeeping for Tasmania.

I might add that this would require that deer farms be confined within in the deer area as well. We have not seen deer farms in Tasmania from which escapes did not happen or were not possible. Indeed we know with some deer farms, people have got sick of it or got into financial

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troubles and have simply opened the gate. That creates a huge problem for the future. Whether it is in north-west Tasmania or far south Tasmania or in the Snug Tiers or wherever, it is simply reasonable that if there are going to be future fallow deer farms they should be within the deer area and not where they can escape.

I understand that South Australia has recently introduced legislation with stronger controls on deer farms, putting down conditions for fencing and introducing penalties for escapes. I cannot give the committee details of that. I have just become aware of that today.

CHAIR - Is there a penalty here for deer farming escapes.

Dr BROWN - No, and that is because deer are effectively protected in Tasmania unless you have a licence to go after them, whereas in Western Australia, South Australia, Northern Territory and Queensland they are pests. They are open to eradication. If you are going to have a farm then you have to get a farm specifically because they are listed as pest species in those states.

Mr MULDER - Are you saying that farmers there have a responsibility to eradicate these pests from their land.

Dr BROWN - They have a responsibility, if they are farming deer, to keep the deer on those premises.

Mr MULDER - Farming deer, not the wild deer.

Dr BROWN - No, but if there is wild deer of course they are treated as a pest species.

Mr MULDER - They are free to remove them but there is no obligation for them to reduce pest species on their land.

Dr BROWN - I am not aware of that.

I have in the submission looked at what has happened in New Zealand over the last couple of centuries. There is a couple of very good books on that. Two things that come out of that is that they use both 1080 and shooting as a means of control. They have no native mammals as we have in Tasmania. Of course part of our fame and fortune are our native mammals, so poisoning deer becomes a problem. However, in New South Wales, for example, in the Royal National Park they are now looking at attraction devices for deer to go and feed and put their feet on the grill. They have a nice feed, they go away, and the next time they come back they may find the feed is poisoned.

CHAIR - What with, Bob?

Dr BROWN - I understand they first looked at cyanide and that has been discounted, and they are now looking at 1080. That is still experimental but there is work being done. Deer in the Royal National Park were at the point of eradication after the 1994 bush fires but there was a public outcry about the thought of shooting deer. They were then expanding into the Illawarra. They are now spread throughout the national park in Illawarra. For example, in the last seven years - I may have these two statistics back to front, but in the last seven years I understand eight or nine people have died in car collisions with deer and there have been more than 100 major

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accidents due to the population of deer expanding there. The opportunity was there. It was not taken. Now they have an enormous problem.

CHAIR - That is in Sydney?

Dr BROWN - That is in the Royal National Park, to the south of Sydney. They have now spread into the Illawarra escarpment around Wollongong where they are creating a great deal of public anguish.

Ms RATTRAY - The biggest pests we have on the Esk main road of an evening.

Dr BROWN - I have had friends who have had major accidents with deer because they come out at night and they are not easy to see. It would be interesting to have statistics on the cost of those accidents both in human injury, if not death, and the expense of the deer. That is not really germane to my submission. This Council inquiry is a great milestone and an opportunity to look at how we keep the deer as an asset for those who see it that way, but do not allow it to become a major problem, which is where it is headed.

That is very clear from the statistics we have just heard. I concur with the growth curve looking at there being up to a million deer by the end of the century. Add to that climate change and a little warming and the spread could be even greater than expected. Fortune is with us in being able to put some money into a control mechanism. It would require a specific office monitoring and controlling the deer from expanding into the World Heritage area and west of that line.

It is not something that can be left for people to occasionally think about. It would need a specific operation aimed at keeping that line. The public would be very helpful. A lot of walkers, fishers, tourists use the region these days and they would very happily report deer if they saw them. They will see them, as I say in my submission. In the Liffey Valley there were no deer for 30 or 40 years after I went there. Since I put that submission in a neighbour has reported seeing 13 jump the fence opposite my place. It is anecdotal evidence everywhere that they are spreading. We really do not know what the figures are, but it is a good opportunity to -

CHAIR - That is it; we do not know, do we?

Ms RATTRAY - It is a pure estimation.

CHAIR - What is interesting in your submission, you said about shooting from helicopters, what has happened in New Zealand. We have heard from some witnesses here today that it is a different deer and different landscape in New Zealand to here, in the World Heritage Area. Did you take that into consideration when you were thinking about it?

Dr BROWN - Yes. I opposed the World Heritage Management Plan which allowed for shooting of wallaby in the central plateau area of the World Heritage Area, but that stands. Currently you can take a dog pack and guns into the World Heritage Area and shoot wallaby - native fauna.

CHAIR - I am not specifically meaning the shooting, but from the helicopters.

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Dr BROWN -It did prove effective in reducing numbers in New Zealand once they get into forest country. I would defer to the shooting fraternity and system in Tasmania. I've had a meeting since I put this submission in with the good folk who are recreational hunters. They have a lot of experience and felt culling deer at ground level would be a more effective way. All those options needs to be looked at. It also would be instructive to find out from New Zealand how they have protected the Northland, the area north of Auckland they have kept free of deer. They have a line, effectively, and have maintained it for decades now. That experience would be very helpful to us in Tasmania in keeping a line, if we were of a mind to do it.

Ms RATTRAY - In relation to point 8 in your submission, protection of deer on public land should be withdrawn, are you suggesting that is where we need to start? Telling individual landowners what they can and cannot do with their land is not always that easy, but with public lands the government already has the overarching responsibility. Are you suggesting we start there, make some decisions around that, and then the rest of it? Do you think the committee should consider having an all-encompassing plan or suggesting something to the government of the day?

Dr BROWN - Landowners want to be in control of their lands. Once you get out of the Western Tiers - for example when you're heading to Deloraine - to the left is Meander and Jackeys Marsh and places like that - it's not going to be long before deer are emerging out of the woods and ranging across that country. I can't presume, but I would think that community would say, 'We would like to help you stop that happening'. As for the rest of it, most of this line is dividing public land - it's either state forest or national park and World Heritage Area. The first thing to do would be to see the deer as a pest when it comes to protected ecological systems which are important to Tasmania's economy and our presentation world wide, and those booming tourism figures are very important. People are coming here to see wombats, devils, wedge-tailed eagles and things which inevitably - and this is very hard to conceive of - the deer are competing with.

Ms RATTRAY - And the mountain bike tracks now. With the significant development of mountain bike tracks, I expect a deer is the last thing you want to see on the track if you're going flat out down one of those embankments.

Dr BROWN - We were camped in the Grampians in Victoria a while ago and along the track there deer, which are protected in the Grampians, jumped out in front of us. As far as a natural experience is concerned, that was the end of it. I spoke to the ranger afterwards. They said they couldn't do anything about it. Part of the concession that allowed this -

CHAIR - They are protected in the Grampians, but not in the rest of Victoria?

Dr BROWN - I'm not sure about that; I don't know. They are apparently protected in the Grampians and it has some historical basis for it.

Ms RATTRAY - Interesting, thank you.

Mr GAFFNEY - I gather people are winding up on deer. I am interested that your submission highlighted goats. Tell us some experiences you have and tell me about the goats and how you see them as an issue?

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Dr BROWN - Goats are also very destructive to the natural ecological system. I went to Liffey in the early 1970s, flower power and all that, although I didn't have a flower in my hair. A lot of my friends were trying alternative farming and so on. They would go on holidays and I would milk their goats. When the time came and they moved, they had children and wanted to be closer to schools and so on and left, some of these good folk felt very attached to their goats and let them out of the back gate.

Wind forward 20 years and I am in this Parliament and I get an anguished call from a resident who says, 'There is a helicopter up over Drys Bluff in the Great Western Tiers' - the prominent part you see from Longford and Launceston - 'shooting goats. You have to come up here and stop it.' I said, 'Well, no, I am backing national parks.' They took out the bucks, the male goats, and I think they dealt with that little infestation. It has been stopped, as there is no money for that. There are goats in the Cluan Tiers, opposite. These have come from released -

Ms RATTRAY - People have them as a house pet and then let them out.

Dr BROWN - They don't want to send them along to an abattoir or to somewhere else later on, or they escape. They are a big problem. I think as I have said in the submission, if you are going to draw a line and try to keep deer out of the bigger part of the World Heritage area, it would be very wise to have the same people spotting goats and trying the same methods to keep them at bay.

Mr GAFFNEY - They are a huge problem in mainland Australia as well.

CHAIR - It is interesting you brought that up, Mike, because I was going to ask the same question. Last week on Hobart radio, there is a hill around Hobart here called Goat Hill. The feral goats on that hill are in huge numbers apparently. I cannot think which radio station, but it was on last week, and it was a real issue the residents were ringing in about.

Dr BROWN - Arkaroola, which is a private national park at the top end of the Flinders Ranges in South Australia, is riddled with goat. They eliminated 96 000 by shooting and they are goat free. It is a huge attractant. A marvellous area with rare and endangered plants that have survived this. It is a problem to avoid if you can. There are big efforts with the indigenous people to get rid of goats out of the rest of the Flinders Ranges, but again it is costing. South Australia is facing a multimillion dollar effort. Private enterprise helps a little. Last time I was in White Cliffs in New South Wales there were signs up offering \$14 a head for goats, because they had become a desirable export entity. It is a bit late when you are at that stage.

CHAIR - Feral cats are doing the same thing.

Dr BROWN - Except you can't sell those.

Ms RATTRAY - We hope we can't. There are stories about what they do with them, but let's not go there.

Mr GAFFNEY - One of the issues is a part of our culture that says you should not shoot something and not use it. We shouldn't be wasteful. There have been suggestions deer could be good for human consumption, although there are reasons that can't happen, and pet food as well. If we were to go into a culling regime, should we be looking at ways of using the meat or using

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the animal if it is going to be shot to cull? Should we be looking at those laws prohibiting us from using it for pet food?

Dr BROWN - The argument there, as I understand it, is a commercial one with deer farmers feeling they would be in competition. I do not have answer to that. It is a subsidiary question to me, as with the goats on Drys Bluff, where at times there was a bit of anguish about goat carcasses being there but that has all disappeared. The best thing would be to prevent deer from moving into the World Heritage Area so there is not a question of what to do with them, they are kept at bay. There will be a few perhaps being culled.

Modern technology is going to produce better systems for deterring browsing animals like deer and goats from moving into a territory, but do not have those yet. I do not have an answer to that. If I put my doctor's hat on, I am told venison is much healthier than other forms of meat but I do not have a commercial -

Mr GAFFNEY - The line you have drawn, which is helpful for people to understand the concept you are about. We heard from the university prior to your presentation, about doing a study over two or three years to try to gather enough evidence to work with the groups to come up with the next step and management. It would include something along zoning, because it has been mentioned. Do you think this is needed and a good way of going?

Dr BROWN - There needs to be, however or wherever it is done, a deer management authority, it would be part of the job of that authority. This cannot be only three years, it needs to be seen as a 300-year enterprise, which is permanent. Tasmania is going to wrestle with this problem and this asset, depending on which way you see it, all the way down the line. That authority would build up statistics. Doing a study without having a plan at the end of it is losing the advantage of another three years. Part of that study should be a request to all bushwalkers and fishers and people on the central plateau to report deer where they see them.

I am old enough to remember cattle in what is now the Walls of Jerusalem National Park and they did a huge amount of damage. Deer are heading across to where there are rare stands of pencil pine and King Billy that, fortunately, weren't burnt in the fire earlier this year. They are a huge attractant to people going up there. These days there is quite a bit of other infrastructure. Stopping the deer from getting into the Walls of Jerusalem, and we are only a few years away from it, is an important thing. Part of the study, if there is to be a study, needs to be not only looking at the deer but needs to be look at the management and implementing it.

Mr GAFFNEY - You are right. There needs to be somebody or some group responsible for it. For example, cat management, we often see feral cats when we are driving along and going through places. There is a feral cat and there is nobody to report the cat to. Although some councils are taking responsibility, and some groups within, but you do not know how or who to report that to and you drive past. Then you come back a week later and you see it again, still wondering, who do I ring up to let them know there is a cat that should be caught. It is a disconnect between what we are trying to do and getting it done.

Dr BROWN - Yes, that is true.

Ms RATTRAY - I can see a bill similar to the litter management hotline.

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Dr BROWN - It would need proper management of the deer is going to require legislation. It is a win-win outcome. The traditional deer area is managed for the people who depend upon that and who get their recreation from it. The area which is free of deer is kept free of deer, it is a win-win opportunity.

Mr GAFFNEY - As you said, three years, to gather as much reliable information as we can and create a management plan is not a long time when you look at it.

Dr BROWN - True, but I would very strongly recommend that part of that three years, if it is going to take that long, be establishing how you defend a line like this, wherever it be, to secure the rest of the state from the impending deer invasion. It is coming and it will be catastrophic if it is not stopped.

Ms RATTRAY - In your submission and in providing us with this map, in relation to keeping the deer contained, there would already be some deer farms outside of this area and it was suggested this morning from the department that they were told they could not restrict where a deer farm was because of competition in the state. Is that something you think we could manage as a state? You have already established deer farms outside of this boundary, even though it is not there. What do we do with the ones that are already established?

Dr BROWN - I think the best practice elsewhere - and maybe it is South Australia but maybe it is beyond that - is to ensure there are not escapes from those farms and that the old idea - that if you get sick of it or you have finished with it or you go bankrupt you just open the gates - has penalties attached to it. It is creating a cost on the taxpayer down the line. There have been some escapes in the north west, I think south of Marrawah. On one farm there that process of letting them go happened. Quite urgently that needs looking at and that territory needs recovering otherwise there is going to have to be another line in the north west of the state.

Ms RATTRAY - Then we will have a line across here and then there will only be this little patch here. If we can salvage that small patch down in the south west.

CHAIR - You have already got them in Southport.

Dr BROWN - Yes. I think with farms like those they need to be monitored very closely. There needs to be legislation with penalties for escapes. There needs to be very high standards for maintaining them and there needs to be grandfathering of those farms to the west of this line so that when current owners or their descendants decide they are not going to farm deer any more that is the end of it. It is closed and the deer are removed from the area.

CHAIR - Thanks for making your time available. We appreciate that.

THE WITNESS WITHDREW.

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Mr SIMON SEBASTIAN BURGESS, DIRECTOR OF CONSERVATION, GREENING AUSTRALIA, WAS CALLED, MADE THE STATUTORY DECLARATION AND WAS EXAMINED.

CHAIR - Welcome. All evidence taken at this hearing is protected by parliamentary privilege. Any comments you make outside the hearing may not have that privilege. The evidence you present is being recorded and the *Hansard* version will be published on the committee website when it becomes available.

Mr BURGESS - Greening Australia is a national non-government environmental NGO. We are not an advocacy organisation. We have been around since 1982, some 34 years. I have been with the organisation for nearly 18 years. Our primary role is to restore degraded landscapes so it is about rehabilitation and restoration.

We work very closely with Tasmanian Land Conservancy in bush heritage in our own bodies. However, our primary role is not so much in protecting existing patches of native vegetation; it is restoring and rebuilding native vegetation across the landscape.

Much of our work in the last 30-plus years has been in the Derwent, the Central Plateau and the Midlands catchments. Our current project is to restore the Midlands of Tasmania. We are building two wildlife corridors from the Central Plateau across to the Eastern Tiers and the reason for that when you drive through the Midlands Highway, there is a lot of tree decline. Basically, the whole ecological system is in decline. There are very few native trees re-establishing naturally due to many factors, including sheep grazing, deer, and so on. Our ambition is to complete those corridors. It will take about 6 000 hectares to get that job done. We have done 1 000 hectares already.

CHAIR - 5 000 to 6 000?

Mr BURGESS - 6 000 hectares to complete those corridors at a total cost of around \$30 million.

We have completed a little over 1 000 hectares already at the expense of about \$6 million. We have sponsored the university for ARC research grants mostly with the School of Plant Science and the School of Zoology. Part of those experiments have included genetic trials on eucalypts to try to understand which seed prognosis to use to best restore that landscape, particularly in the face of climate change.

We have experienced quite a lot of deer damage and that has impacted on our experiments. We have gone to the length of installing weld-mesh cages at some great expense. We have installed about 10 000 weld-mesh cages over individual trees. The materials for those cages cost between \$13 and \$15 per cage and around about \$35 for labour. However, with much of that labour we have saved our expenses due to some help from Green Army teams, students and volunteers. So we are going to great expense to protect our plants.

Ms RATTRAY - They smash them anyway, Sebastian.

Mr BURGESS - They do. A small number do get smashed. The photographs will show that. We are finding that growing trees in that country is particularly difficult. Up until this last

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winter we have faced three dry years. The lowest annual rainfall was 336 millimetres of rain over 12 months in the Ross area so it is pretty difficult country to grow trees.

Normally, agricultural fencing will protect the plants from sheep entering into the patches and with a little bit of reinforcement, slightly higher fences, we can protect our plants from wallaby. Generally wallaby and sheep will browse native plants to a certain degree and once the plants are established to about a metre and a half to two metres tall they are beyond the reach of wallaby, kangaroo and sheep. We think they are pretty well established and away they go. That is exactly the size where the deer will damage them. We are experiencing male deer rubbing their wood off the antlers and some of those photographs will show you that. They will totally destroy a whole plant. We have kept best records in our university experiment sites and over 50 per cent of experimental trees have been either damaged or destroyed. That really upsets the experiment because we're looking for the most healthy and vigorous trees. We have tracked the trees back to their parent plants all over south-east Australia and it has played havoc with that experiment.

The total cost we have expended on protecting plants from deer and stock about \$250 000, out of a total budget of around \$6 million. That has included one particularly valuable 17-hectare experimental site. We spent \$46 000 building a two-metre-high electrified fence and that was still breached by deer. I have seen herds of up to 160 animals outside Ross. The large herd I saw was approximately 1.5 kilometres in towards the Ross township from the forest, way out in the open paddocks. We are experiencing a lot more deer in open farming country many kilometres from the forest. The landholders we are working with, particularly down by the Macquarie River, say they are seeing more and more deer come right down to the river. I occasionally see carcasses on the side of the Midlands Highway. That is very rare and we didn't see that some years ago.

Deer are having a huge impact on our operations. The money we are using for our project is either public money, and it is becoming a greater amount of philanthropic money and money from trusts and charities. We have a campaign to raise \$25 million to complete the next 5000 hectares. Although we see the Commonwealth government and the state government having a role to play in that, the bulk of those funds, we believe, will be coming from either business partners or philanthropy. The cost for us to establish trees precludes us from some Australian Government programs. For example, we applied to the 20 Million Trees Program, which at the moment is one of the very few Commonwealth government programs for environmental on-ground work. My competitors and compatriots in South Australia can plant a tree for about \$3 per stem and you can see it is costing us up to \$50 a stem, so we're not competitive. We are not winning any of those grants, if we include the cost of labour. It is a massive logistical exercise to protect those plants. Getting the plant to 1.5 metres tall is high enough for sheep and wallaby, but it's at that stage the impact from deer is causing us a lot of grief.

We would like to see deer no longer formally protected in Tasmania. Ideally, we would like to see fallow deer recognised as a feral pest. That's our primary recommendation. We certainly need better monitoring and understanding of the population and distribution in the state. From that, as some of your other speakers have said, we need some recommendations for an ideal population. We are not necessarily asking for elimination of deer - we don't think that is possible - but I would like to see deer numbers reduced in the Midlands. I would also like to see landholders have a much freer rein to manage deer populations on their own properties.

Mr FARRELL - Talking about your colleagues in South Australia, do they have the same issues with the destruction of trees from deer or is it more prevalent here?

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Mr BURGESS - It's certainly more prevalent here and in parts of Victoria. My colleagues in Victoria have problems. My colleagues in South Australia are able to use a different technique of planting trees called direct seeding where a seed is drilled into the ground, but we have no way of protecting those plants. That is much, much cheaper and it is more efficient. We cannot use that technology here because there is no way we can protect it. We tend to plant stems and encage them.

Mr FARRELL - The Victorians are using -

Mr BURGESS - In some places in Victoria there are similar issues.

Mr FARRELL - Do they use cages?

Mr BURGESS - In limited numbers, but I am not aware of anywhere in Australia using cages to the extent we are.

Mr GAFFNEY - What is the advantage of determining them as a pest, instead of partly protected?

Mr BURGESS - Being partly protected at the moment, the numbers exceed the carrying capacity of the country we're in, the landscape is in decline. They don't play a natural ecological function in the landscape. We cannot continue as we are.

Mr GAFFNEY - The impact of declaring them a pest is nothing, is it? There would be no gain from declaring them a pest unless there are management practices around it?

Mr BURGESS - Exactly, yes. That would facilitate and enable landholders to manage the depopulation of their own properties without the encumbrance of the protected species.

Mr GAFFNEY - Of the permit. They could get rid of them because they are a pest?

Mr BURGESS - Yes.

Mr GAFFNEY - The previous speaker, Dr Brown, has drawn a yellow line -

Mr BURGESS - I haven't seen this.

Mr GAFFNEY - It does not really help the Midlands, I do not think. I thought I better be forward with that. You heard the concept about protecting areas. Your aim is that what you are doing through the Midlands with your trees is protecting and revitalising this important part of our environment, so it should be considered a protected zone area as well.

Mr BURGESS - I would like to see, and Greening Australia would like to see, overall numbers of deer reduced considerably.

CHAIR - 10 000 I think.

Mr BURGESS - Yes, correct. I was saying by population. It is a considerable reduction in numbers. We are not necessarily indicating total elimination through the Midlands.

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Mr FARRELL - You are in the hotspot?

Mr BURGESS - We are in a deer hotspot, but we are also in a biodiversity hotspot. The Midlands of Tasmania is recognised as one of the 15 national biodiversity hotspots. Although half of the state is protected through national parks or World Heritage Area under formal reservation, the real clusters or hotspots for biological diversity is in the Midlands on that private land. That is why we have chosen to work in that landscape. For example, animals such as the eastern bettong, eastern bandicoot and eastern quoll, for example, were fairly common in south-east Australia and now they no longer exist there. Their populations in that dry landscape in Tasmania are in decline. If we do nothing we will likely lose some of those small native animals and we will see populations of deer increase. As I said at the outset, the ecological health of that whole countryside is decreasing.

Mr GAFFNEY - The 6000 hectares -

Mr BURGESS - 6000 all up, yes.

Mr GAFFNEY - How much of that land would be on properties that receive an income from deer?

Mr BURGESS - The short answer is I don't know. We haven't brokered agreements with all of those landholders yet. We are working on about eight properties at the moment. Two of those are very large properties and the landholders have significant investments in deer management. They may make some revenue from deer, but they see it as more of a problem rather than a benefit.

Mr GAFFNEY - That may be an issue if some of the properties you want to plant on receive a significant income from their deer, if you want to reduce the number of deer there, because they have a management structure already in place, whereas some of the other properties do not.

Mr BURGESS - Yes. It is a matter of striking a balance because it is a cost to the landholder as well. In fact most of our animal management is conducted by the landholder. We have been constrained by the number of permits the landholders can receive and actually physically, logistically and mechanically bring numbers down to a manageable number.

Mr GAFFNEY - Do you guys have a relationship with any of the hunters or shooting societies?

Mr BURGESS - More at arm's length. As I said, our agreement is with landholders and the landholders manage the deer and wallaby populations, so we may contribute to some of the costs. We certainly do not benefit financially. In fact we sometimes contribute to the costs of the management program.

Ms RATTRAY - A question around how you chose your 10 000 head as a number, given we do not really know how many we have. I just wondered how you arrived at that?

Mr BURGESS - The 10 000 came from the Potts paper as an estimate of some of the early populations which appeared to be relatively stable for several decades. It is really based on that. Our second recommendation was to do some serious study and identify what that number should be. Certainly it is significantly less than it is at the moment.

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Ms RATTRAY - Your recommendations are reasonable. It is not the first time we have heard that landowners should have more opportunity to manage their properties. It was even suggested that a landowner or a land manager has to apply for a deer gaming licence just to be able to put in a management plan - albeit it was \$68. The landowner and the manager are not doing the actual culling or shooting and they have to apply for a licence. That is interesting.

Mr MULDER - Following on from Craig, I did not quite get why other jurisdictions, as we have heard, do have problems with wild deer and they are getting into various places. I could not quite understand why those places do not have the same costs of protecting that we do, given we have got the same problem, or am I misreading the problem?

Mr BURGESS - You mean my counterparts in other states?

Mr MULDER - Yes.

Mr BURGESS - Most of their operations are in areas where the deer populations are not as big as ours. They certainly have problems from wallaby and other native browsing animals. What we are doing is quite innovative.

Mr MULDER - It is obviously a different problem.

Mr BURGESS - It is.

Mr MULDER - Therefore you have to have different solutions, and in our case it is more expensive. Surely some of these grant programs must recognise that.

Mr BURGESS - For example, we received \$500 000 from the Tasmanian government for some of our earlier experiments and for some carbon-offset planting up near Bothwell back in 2008-09. Many of those plants have been damaged. That was before we were caging. We seem to have learned a lot since those years.

Mr MULDER - What is the different ratio in damage between caging and non-caging?

Mr BURGESS - With caging we have had, even with those dry years, between 95 and 100 per cent success, although the occasional cages have been pushed over. If we do not cage, where that photograph was taken, those plants are knocked over. They are totally trashed.

CHAIR - When they trash them, do they eat them?

Mr BURGESS - It is not so much browsing as physical rubbing and smashing. It is not only trees; it is also some of our really stiff stemmed shrubs. They like to grind their antlers into them and it is a good scratch. They will pulverise it. One of the reasons we need to go to this extent is that in a well-functioning ecosystem there would be natural recruitment - trees will be growing by themselves. A combination of sheep browsing, plus drought and maybe high wallaby numbers, with deer we are not getting that natural recruitment. The trees we are seeing in the Midlands now are probably 300 to 400 years old. They are coming to the end of their natural lives and they are not being replaced by anything. We are having to come in to intervene, otherwise that landscape will be a desert.

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Mr GAFFNEY - I wonder if there is any place in the world where they have something like the dairy milking thing where cows walk out and get their back scratched by a scratching pole, so every hundred metres you would have a deer scratching pole.

Mr BURGESS - We have talked about that, but it might be a bit of a lure. I know some farmers have invested heavily in deer fences, but again it is a big expense.

Ms RATTRAY - Seventeen hectares, \$46 000.

Mr BURGESS - It's only one paddock - \$46 000 - so that was \$18 a metre or something, electrified, but that was still breached. We think they jumped over the top.

Ms RATTRAY - You have some pictures of them jumping a normal fence.

Mr BURGESS - That was just a regular fence. This fence was two metres high.

CHAIR - Thank you very much, Sebastian.

THE WITNESS WITHDREW.