



**LEGISLATIVE ASSEMBLY FOR THE AUSTRALIAN CAPITAL
TERRITORY**

**STANDING COMMITTEE ON ENVIRONMENT AND
TRANSPORT AND CITY SERVICES**

(Reference: [Annual and financial reports 2018-2019](#))

Members:

**MS T CHEYNE (Chair)
MISS C BURCH (Deputy Chair)
MR J MILLIGAN**

TRANSCRIPT OF EVIDENCE

CANBERRA

WEDNESDAY, 13 NOVEMBER 2019

**Secretary to the committee:
Mr D Leary (Ph: 620 50124)**

By authority of the Legislative Assembly for the Australian Capital Territory

Submissions, answers to questions on notice and other documents, including requests for clarification of the transcript of evidence, relevant to this inquiry that have been authorised for publication by the committee may be obtained from the Legislative Assembly website.

APPEARANCES

Chief Minister, Treasury and Economic Development Directorate	1
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Amended 20 May 2013

The committee met at 9.31 am.

Appearances:

Gentleman, Mr Mick, Manager of Government Business, Minister for the Environment and Heritage, Minister for Planning and Land Management, Minister for Police and Emergency Services, Minister for Advanced Technology and Space Industries

Chief Minister, Treasury and Economic Development Directorate
Pryce, Mr David, Deputy Director-General, Access Canberra,
Sargent, Ms Narelle, Senior Director, Environment Protection, Access Canberra

Environment, Planning and Sustainable Development Directorate
Ponton, Mr Ben, Director-General
Walker, Mr Ian, Executive Group Manager, Environment
Foley, Mr Justin, Acting Executive Branch Manager, ACT Parks and Conservation Service
Moore, Ms Fiona, Senior Director, ACT Heritage

THE CHAIR: Welcome to the first day of hearings of the Standing Committee on Environment and Transport and City Services inquiry into annual and financial reports 2018-19. Today we will hear from the Minister for the Environment and Heritage, Mr Mick Gentleman MLA, and his officers regarding the Environment Protection Authority, the Conservator of Flora and Fauna, Environment, Conservation and Land Management, and ACT Heritage Council.

I will start by asking witnesses whether they have read and understood the pink privilege statement that is on the table. I understand this is not your first rodeo, Minister Gentleman.

Mr Gentleman: Yes, that is true. Yes, we have read the statement, chair.

THE CHAIR: Thank you. I remind members that, according to the standing orders, questions on notice should be lodged with the committee support office within five business days following the conclusion of the hearing. Responses to questions taken on notice should be submitted to the committee office within five business days of the uncorrected proofed transcript becoming available. Responses to questions on notice should be submitted to the committee office within five business days of the questions being received.

I welcome the Minister for the Environment and Heritage and his officers, and we will start with the Environment Protection Authority. Minister, do you have an opening statement?

Mr Gentleman: I want to thank the directorate for the work they do every day in engaging with our community, particularly around noise in the suburbs. There is a fine balance in understanding that some suburbs are noisier than others. We are trying to work with our community to ensure that we can provide them with the advice and

ability to be able to get along with community members in the suburbs.

THE CHAIR: I understand that the complaints management team within Access Canberra received 2,844 complaints relating to EPA matters in the 2018-19 year and about 80 per cent of those related to noise. What kinds of issues fall under noise complaints? Are they generally residential or are they related to buildings? Can you shed any light on that, please?

Ms Sargent: Yes, as you rightly pointed out, 80 per cent of complaints are in regard to noise. In terms of the breakdown, 51 per cent were amplified music, 22 per cent were construction—building and construction sites—six per cent were air conditioners, heaters and fans, six per cent were mechanical plants and equipment, five per cent were vehicles, four per cent were people, three per cent were gym equipment, two per cent were alarms, and one per cent was garden work. As you can see, basically, the large proportion is noise, then construction.

As the minister pointed out, one of the spaces that we work very proactively in is to manage noise, in terms of community-related noise. Amplified music is generally residential noise; there is also building and construction noise. In about September 2018 we took the proactive initiative of working very hard on having a neighbourhood noise campaign. We launched a brochure that now goes out when we have complaints. It goes out with a letter to the activity manager, which is the person who we suspect is making the noise. It is on the website. We have actively engaged with the conflict resolution service in assisting with mediation and suggesting to the community, in particular, some tips about having a conversation with their neighbour. Sometimes the neighbour is not aware of the impact, for example, of their party, their air conditioner, the pool pump, the lawnmower or the air blower. They are just not aware that it is impacting on the amenity of their neighbour.

We have also been working with ACT Policing in regard to assisting in having similar messaging, particularly as we come into the summer season and there are a lot more parties. We have a party form online. You fill in some details and it then self-populates, with a letter or a notice that you take around to your neighbours. You can invite your neighbours to the party, or let them know that there will be a party. They may wish to go to the movies or something else. You say that you anticipate that the party will finish at a certain time. We give tips about safe parties in terms of alcohol and that sort of thing. We link in with ACT Policing.

That has been ramped up recently. On 1 November the conflict resolution service kicked off a campaign in regard to managing complaints, in particular, noise complaints. ACT Policing usually run a safe summer campaign, but now it is a matter of advising people across the year about what they can do at different times. We are also now looking to link in with Neighbourhood Watch and get the message out into the community. I think that one of the key things is connecting with the community.

In regard to the second highest area of complaints, which is building and construction, that is reflected by the fact that the biggest industry in the ACT is building and construction. You only have to look out over here to see the new building that is being constructed. We are actively engaging with the building industry, in particular, the master builders association, some of the other agencies involved in building work,

such as the Riverview Group, the Ginninderry development and also the Suburban Land Agency, to make sure that builders are aware of when they can be noisy and what those noise levels are.

THE CHAIR: Do you have a breakdown of suburbs where construction noise has been complained about?

Ms Sargent: I certainly do. The five top suburbs for noise complaints in regard to building or construction noise are Kingston, Belconnen, Braddon, the city and Gungahlin, which reflects the growth areas.

THE CHAIR: Within Belconnen do you have a breakdown of sites that have been reported? I am curious to know if Republic is the number one reported site in Belconnen.

Ms Sargent: It is hard to know which site it is because quite often there are complaints but it is actually road noise rather than building and that type of thing.

THE CHAIR: I appreciate that there have been some ancillary works and that Republic is next to another construction site, which is a hotel.

Ms Sargent: Exactly. Sometimes it is really hard to know. My team are going out and doing early morning, proactive inspections, just to check in terms of when that is happening. Sometimes, because the suburbs are quiet and you can hear the birds and that sort of thing, it could be that the builders are walking on the scaffolding to go and set up but they are not doing construction activities. We are very conscious of making them aware of when they can start the construction activity, as opposed to just doing set-up.

THE CHAIR: Do you have a breakdown of the construction complaints that are about construction works that are taking place outside hours, rather than just amplified noise of construction?

Ms Sargent: With building and construction, the complaints are actually about the construction activity. They are not about amplified noise. They are to do with the actual building—

THE CHAIR: I assume there is no time limit with respect to when you are getting construction complaints. Sometimes you are getting construction complaints when construction work is allowed to go ahead—

MISS C BURCH: It is just loud.

THE CHAIR: Yes, it is just loud; exactly.

MISS C BURCH: As opposed to noise complaints when it is taking place outside of the permitted time, are they reported separately?

Ms Sargent: Most of them are actually outside the permitted hours, not do to with it being above the standard—

THE CHAIR: Do you have that breakdown?

Ms Sargent: I would have to get that for you.

THE CHAIR: Okay; only if it is not too much trouble.

Ms Sargent: I am actually not sure that we collect that in terms of—

THE CHAIR: If you do not, that is fine.

MISS C BURCH: If you do collect it, can you provide it on notice?

Ms Sargent: Yes.

MISS C BURCH: Thank you.

Mr Gentleman: EPA issue licenses to constructors to operate at a certain noise level. It is only outside of that process that you want?

THE CHAIR: Yes. Basically where someone is doing the wrong thing is what we want.

Ms Sargent: For example, we recently issued fines to building companies for that very thing. That was in the residential areas; Kingston and Lyneham, I think it was. So we are being very proactive in that space.

MISS C BURCH: Where there are residential noise complaints or building and construction noise complaints, who actually determines if there has been a breach? Is it ACT Policing, or is it you guys?

Ms Sargent: For noise?

MISS C BURCH: Yes.

Ms Sargent: That is the Environment Protection Authority.

MISS C BURCH: So if it is a residential complaint, after hours, do you attend—

Ms Sargent: If it is residential for amplified music, in particular a party, that will depend upon the circumstances as to whether there might be a risk of safety to the Environment Protection Authority. Generally the police will do the licensed premises. However, it just depends upon the circumstances as to how big the event might be and that sort of thing. Under our powers, we have to take a noise reading for 10 minutes to determine what the dominant noise is, whereas ACT Policing under the Crimes Act can just determine that the noise being emitted is offensive. They can issue a noise direction. So their powers are greater than ours in terms of not being as strict in getting the reading or determining—

MISS C BURCH: Ten minutes to do a reading.

Ms Sargent: Yes.

THE CHAIR: If I call you at midnight and there is construction work going on, does the EPA go out immediately to do that noise reading, or does it depend?

Ms Sargent: It will depend upon the circumstances in terms of whether we are attending another matter and whether the complainant has rung when it is actually occurring and anticipates that it will be occurring when we get there. So it is sort of triaged and an assessment is made as to whether it warrants us going or whether it can wait and then we follow up with the activity manager on the next working day or the next morning.

THE CHAIR: Is how something is triaged made available online on Access Canberra so that people's expectations are managed about when you will go out?

Ms Sargent: When they phone the centre, if it is a first complaint, we generally do not attend. If it is a second complaint and it is to do with non-environmental nuisance matters, we attend. It also depends upon how many complaints we have received and whether the officer is available. It is the same with the policing as well: if we need back-up from police, whether they are actually available. But it is based on risk and harm. If they are calling about an incident, if it is some sort of immediate environmental threat like a pollution incident, we basically go straightaway. But when it is a complaint, that depends on how many times the resident has complained. Sometimes it will depend upon the stress and the circumstances as well.

MR MILLIGAN: In relation to the construction of the light rail project in our town centres, what lessons were learnt from the survey process in relation to the noise levels that were experienced by businesses and so forth along the light rail corridor. What was the feedback and what were the lessons learnt from that process of consulting?

Ms Sargent: We did not have carriage of the light rail process.

Mr Gentleman: That would have been Transport Canberra.

MR MILLIGAN: But EPA is responsible for the noise in construction levels, right?

Ms Sargent: However, under the light rail project they had a steering committee set up to manage a number of aspects. In terms of complaints about light rail, the residents generally were notified when construction was happening around that activity. So we did not have a great deal of involvement, particularly towards the end of the light rail construction, because Transport Canberra and City Services were very active in making sure that the community knew when there was going to be construction, particularly at night. They were out there notifying the community that that activity would be happening.

MR MILLIGAN: Is it true, that the light rail construction was exempt from any noise level restrictions, period?

Ms Sargent: I will have to look into that.

MS LE COUTEUR: Devices like this will work out sound levels. Do you use complainants' information at all, or do you have to record it yourself?

Ms Sargent: Under the legislation we actually have to record it. That is documented in our noise management manual. We have to take a reading for 10 minutes and determine what the dominant noise source is, as per the manual. However, we do take advice. If the complainant is saying, "I've got it measuring at this level," it does come into, "Okay, that is actually quite loud," and that type of thing. But under the legislation it is not a valid noise reading for us.

MS LE COUTEUR: I have a constituent who is saying that his noise problem is from a gym which is in the same building and it is intermittent. They drop the weights and it is a huge noise but then they have a few minutes and they do it again. Is there anything that can be done in circumstances like that, because it is not 10 minutes of continuous noise?

Ms Sargent: Gyms within mixed use developments is an area where we do get complaints. What we will do is work with the activity manager or the gym and the building owners on mitigating that in terms of educating the gym users not to drop the weights—

MS LE COUTEUR: I do not know if they always choose to drop the weights.

Ms Sargent: and in terms of soft fall on the floors. Generally when a gym is being constructed, a noise management plan will be required, so it is picked up in that early design stage so that there is attenuation within the building to ensure that those impacts are not emitted from the building. However, sometimes there are instances where that falls through. We are not noticing it quite as much at the moment, however, we are aware of that.

MS LE COUTEUR: Going back to the earlier comments, I had not realised that the police had different evidentiary requirements from yours. Would you be able to take on notice how many noise complaints go to you and how many go to the police? I had thought that you got the lot of them.

Ms Sargent: Access Canberra is where the community contacts. My understanding is that Access Canberra, when they come to us—unless it is from a licensed premise or it is people noise, because we do not do people noise—if it is a matter that is meant to be referred to the police, it is referred to the police, not to us. Then we have a memorandum of understanding with the police that they will come and support us if required because of the circumstances of risk and harm when we take a reading. The other thing is that the police may want our back-up because they want us to take a noise reading rather than just using the Crimes Act. Again, it depends upon the circumstances under which the complaint is made.

MS LEE: I know that the vast majority of the complaints are related to noise. You might have to take this on notice: can we have a breakdown of the details of the other aspects of the complaints that you received, the nature of the water pollution

complaints, for example?

Mr Gentleman: Noise pollution, those other complaints as well?

MS LEE: Air, waterways, land contamination and light pollution; they are all there, and make up the other 20 per cent. Do you have a breakdown of the nature of them? Does it involve paint being put into the water? What is the nature of the water pollution complaint, for example?

Ms Sargent: I do not think we go to that level of detail regarding those complaints. They are just categorised as to whether it is waterway pollution or land contamination.

MS LEE: That is the extent of the breakdown; all right.

THE CHAIR: Just to close the loop on this, if I compare table 10 on page 373 of the CMTEDD report with table 9, am I right in thinking that in 2018-19 there were 2,800 complaints, but out of the 2,800 complaints just seven enforcement actions occurred?

Ms Sargent: Regarding enforcement actions, yes, that is correct.

Mr Gentleman: That is an increase of 40 per cent.

Ms Sargent: Yes, it is an increase of 40 per cent in enforcement actions. That reflects the fact that we have been actively out there looking at things such as construction noise and that type of thing. We have been looking at building sites in particular, and we are being kept informed by members of the community.

Regarding some of those actions, there was pollution of water. One involved builders on a site. That was observed by a member of the community, and we followed that up. One involved two commercial waste operators operating in Curtin. That was advice from the community, so that involved acting on complaints. They were collecting rubbish outside the hours in which they are allowed to collect rubbish. One was the pollution of water from a food business in the city. That was advice from a member of the community as well.

THE CHAIR: You said noise pollution—amplified noise, residential noise—is one of the number one things that you get. If that is a number one thing, what circumstances have had to occur in the Charnwood case for that to result in a prosecution?

Ms Sargent: The noise was measured above the noise level, the permitted noise level which is in the brochure.

THE CHAIR: And they did not turn it down, so they got a fine?

Ms Sargent: In the first instance they would have been sent an advisory letter, which is a standard letter saying, “We have been made aware of noise coming from your residence.” The second complaint would have been another notice to say that we have been advised. We would then have gone out and validated a noise reading, that it is

above the noise level permitted. Generally, we will take two readings, just to make sure, to validate the first reading. They will be sent an infringement notice, to pay the fine. They are sent a reminder. If they do not pay, it proceeds to prosecution.

MS LEE: When I asked my question about the breakdown—for example, the water pollution complaints—and you said that there was no further detail, you have been able to identify the two examples that you just gave, on page 372, about paint from the builder’s site and food waste from a food business. I am a bit confused as to whether you do collect that level of detail or not.

Ms Sargent: They are classified as an incident. I said that there were complaints and incidents. Anything to do with water, and water pollution, would generally be classed as an incident, not a complaint. They are actually notifying us that it has happened.

MS LEE: You will provide a breakdown of the incidents, in terms of the water pollution, or are they the only two?

Ms Sargent: In terms of ones that warranted infringement notices, yes. Some are not valid in terms of a pollution incident.

THE CHAIR: People can complain, but there is actually no issue?

Ms Sargent: That is exactly right.

THE CHAIR: Are you able to give that breakdown?

MS LEE: Yes, just to break it down.

Ms Sargent: I will have to see if the complaints management team collect that level of information.

THE CHAIR: It would be super-useful if you could say, “Yes, there are 74 waterways pollution complaints.” I guess the question is: how many of those are legitimate?

MS LEE: Yes, that you have classified as incidents.

THE CHAIR: Yes. Was it just one? A whole heap of people complained but it turned out it was not actually an issue? It is like when people complain about abandoned vehicles, they go and investigate the abandoned vehicle and there is no abandoned vehicle.

Ms Sargent: And it is not.

THE CHAIR: It would be useful for the committee to know where an investigation was carried out and where it resulted in something that was not an issue. Could that be provided in future annual reports, if that is available?

Ms Sargent: Yes, if that is available.

Mr Pryce: I understand what you have asked for, but is it just for the last year, the annual report period? Is that what you are asking about?

THE CHAIR: Yes.

Mr Pryce: Of all those incidents, how many were confirmed—

THE CHAIR: And in future years.

Mr Pryce: investigated or resulted in prosecution.

THE CHAIR: Yes, or thrown out.

Mr Pryce: Yes.

MISS C BURCH: Turning to environmental authorisations, the annual report says that 39 authorisations were granted during the year, bringing the total administered to 304. How many of these authorisations were for an unlimited period?

Ms Sargent: They are all for an unlimited period.

MISS C BURCH: What criteria are used to assess whether they will be granted for an unlimited period or for a specified time period?

Ms Sargent: I will clarify that there would be a few that are for a specified period. They are usually to do with a special event, such as Spilt Milk, because we know exactly when they are operating; they are special events. However, the majority of environmental authorisations are for an unlimited period.

MISS C BURCH: There is a listing for extraction of material from a waterway. What was that?

Ms Sargent: I will have to check it. It could be for dredging or something like that—sand or gravel for extraction of material from a waterway.

MISS C BURCH: You will take that on notice?

Ms Sargent: We can take that on notice, yes.

MISS C BURCH: There are 146 authorisations for commercial use of agriculture and veterinary chemicals. Does the EPA administer or have a formal link with ChemCert certifications?

Ms Sargent: We sit on the national body in regard to agvet chemicals. Yes, we do check those certifications when someone applies to have a licence. There is follow-up checking as well, as part of the review process.

MISS C BURCH: Is that certification a prerequisite for use of ag and vet chemicals or is it just criteria that you look at?

Ms Sargent: It is a prerequisite. They have to have undergone the training; they have to give evidence that they have the training.

MR MILLIGAN: Light emissions at the McKellar sporting field: there was a bit of an issue this year with lighting; a couple of complaints were made, then the matches were cancelled. What was the outcome of that situation?

Ms Sargent: We have engaged very closely with the CEO of the McKellar sporting facility; with the manager and with the CEO, with Mr Geoff Long. We basically progressed a community engagement strategy to make the community aware. It is a bit like with engaging with noise. We have been working with Geoff so that in the upcoming season, of which he has recently given me the schedule—which looks amazing for the W League schedule.

We do not give formal approval for the use of the lights, but we have suggested how he can have the lights adjusted so that they minimise the impact of the light spill so that he does not get complaints about obtrusive lights. We also suggested that he let the surrounding neighbours know of the upcoming season, particularly when they are going to be the broadcast matches. I understand that there will be two broadcast, which is absolutely fantastic. He would then be the contact. If anyone has a complaint when the lights are on and phones the club, he is aware and he can manage that. They know that they might need to adjust, or they can say to the person who is complaining, “By the way, the lights are going off at 9:30. That’s when training finishes,” or “The lights are going off at this time.” So he can engage with the community in regard to that.

After the first lot of complaints we actively worked with Transport Canberra and City Services to make sure that the lights were adjusted correctly, and with his lighting consultant. Part of it was, I think, that they had been cleaned or replaced and then they did not check where the spill was going after that. So we have worked very closely with Geoff—

THE CHAIR: So not only were they brighter, because they had been cleaned, but also they were pointing in an unusual direction.

Ms Sargent: They just had not tipped them down. They were not in the position that they had been in before they were cleaned. They have actively worked to make sure that there is no spill in terms of reducing the impacts and then engaging with the community in terms letting them know when the fixtures are happening and what time they start and what time they finish.

MR MILLIGAN: Do you know when the lights were installed on that oval and who approved for those lights to be installed? Did the government approve it?

Mr Gentleman: It is a private installation, I understand.

MR MILLIGAN: Do they have to seek government approval? Do they have to be tests to make sure that the light emissions meet regulations and it does not exceed what they are allowed and so forth?

MS LEE: There is an Australian standard for obtrusive light. So there is an Australian standard to meet but no, it is not an authorised activity.

Mr Pryce: We provide on the Access Canberra website a two-page fact sheet about light pollution which refers to the standard and the process. If anyone else is interested, that information is available.

MR MILLIGAN: The EPA did some readings of the light emissions from that site?

Ms Sargent: When there were the complaints, we did some readings at the affected person's residence.

MR MILLIGAN: Did they breach any of the restrictions?

Ms Sargent: No. They were within the flux readings to be not classed as obtrusive. But, again, as with noise what some people find offensive other people do not find offensive. So it is a bit subjective as to whether or not people are impacted as opposed to whether the standard has been breached. In that particular case, no, the measurement was within the allowable obtrusive light readings.

MR MILLIGAN: Is this likely to affect any other ovals or facilities with lighting in the ACT? Is there going to be any review or assessment of any of these ovals for the—

Ms Sargent: Because we had not had any complaints before, I had a look to see what Manuka had in place as an engagement strategy. That is why I suggested to the CEO that he manage it through engaging with the community and having a strategy in terms of letting them know when the games were happening, when they were trials and when they were being broadcast, so that the community were aware.

THE CHAIR: On light emission, have you had many complaints about the new LED streetlights?

Ms Sargent: No. But the street lighting is, I understand, Transport Canberra and City Services—

THE CHAIR: It is. I just wondered if you had had complaints.

Ms Sargent: We have not had any complaints about it.

MS LEE: I want to talk about the controlled waste movements. There is an asterisk next to table 7, which is on page 371. It has controlled waste movements into the ACT this year as 643 with an asterisk. Can you give us confirmation of that number if it has been updated since?

Mr Pryce: I think the asterisk shows that that is the number of total waste transport certificates received at the time of the report.

MS LEE: Has there been an update since? Has that figure changed?

Ms Sargent: I would imagine that there have been more certificates issued. We can give you the numbers or, because then we are going into the next reporting year, they will be reported on in our next annual report.

MS LEE: No worries. With the contaminated waste that is brought into the ACT, why is it brought into the ACT? Why do we have contaminated waste brought into the ACT?

Mr Gentleman: Waste is with TCCS, so we may have to take the detail of that on notice. You have TCCS coming in later on, I think. Either way, we can take that on notice.

MS LEE: Yes. But I am just looking at it obviously because it is in this report—

Ms Sargent: That would be the controlled waste movements within the ACT?

MS LEE: Not brought into the ACT? Is that right?

Ms Sargent: I will clarify but I think that it is meant to be within the ACT. We have waste movements within the ACT and then waste movements out of the ACT, or it could be waste going through to get to somewhere else as well. Any controlled waste activities are monitored under the national environment protection measure. So it does not actually mean it is coming to us; it is moving through to any point of destination. For example, if there was controlled waste coming from the ACT and, for example, going to Queensland, it would get tracked into New South Wales, then tracked into Queensland; or, to Victoria, tracked into New South Wales and tracked into Victoria. It has to get tracked through all its ports of call, so to speak; it does not mean that that is the final destination.

MS LEE: Do we have any instances where it is the final destination, the ACT?

Mr Gentleman: From interstate, you mean?

MS LEE: Yes.

Mr Gentleman: I think we would have to check with TCCS.

Ms Sargent: I will have to double-check, but generally it would be going out of the ACT into New South Wales, not vice versa.

MS LEE: Should I put that on notice for TCCS or—

Mr Gentleman: We can take it on notice—

MS LEE: Thank you, minister, for that. In terms of the controlled waste that is taken out of the ACT, where does it generally go?

Ms Sargent: Generally, it will go to a licensed facility within New South Wales.

MS LEE: Do you have details of the costs associated with that?

Mr Pryce: Can I clarify that, Ms Lee? The costs associated with—

MS LEE: Taking the contaminated waste outside—

Ms Sargent: It would be the receiver, because the cost is to the receiver.

MS LEE: So it does not cost the ACT anything to do that?

Ms Sargent: When you take it to the facility, a receiving facility, they will charge a cost.

MS LEE: That, obviously, is charged to the ACT, I assume?

Ms Sargent: No, it is charged to the transporter.

Mr Gentleman: It could be the private sector.

MS LEE: Do they have any waste that is originating from here that is going outside the ACT, as opposed to just going through it, if that makes sense?

Ms Sargent: We will have waste that is going from the ACT, but the government is not paying the cost. The person getting rid of the waste is paying the cost. If you like, the developer will be paying the cost.

MS LE COUTEUR: My question is about composting regulations. I note that you have it there as something that you regulate. Now that you have three regulated sites in the ACT, my question is about what size you have to be, to be regulated by you guys. I had some representations from an organisation which is providing composting services to a number of schools. They said that this was becoming somewhat problematic because there was a desire—

Ms Sargent: If they require an environmental authorisation, and it is a licensed activity, it is under schedule 1 of the Environment Protection Act. Schedule 1 is on page 153.

MS LE COUTEUR: Page 153 of what?

Ms Sargent: Of the act.

MS LE COUTEUR: I have your annual report in front of me.

Ms Sargent: In terms of what the threshold is, it is a facility that composts, or it is intended by the operator to compost, more than 200 tonnes of animal waste or 5,000 tonnes of plant waste. It is item 37 in column 1, schedule 2.

MS LE COUTEUR: In this case he is either confused or something is going wrong. I do not believe that any of these individual schools could be composting that much. The gentleman was saying that he could understand the need for some licensing but if he had to be licensed, why couldn't he have one licence? He said he was being

required to do things for each of the schools where things were happening. That seems to be totally different from the numbers you cited there; the schools simply are not that big.

Ms Sargent: No. We are talking about something that would be out at the Mugga resource facility, that size of composting. However, if the constituent has a question, have him call the office and we can find out what the issue is in regard to his composting question.

MS LE COUTEUR: Yes, I will; I do know how to contact him. We should be supporting small-scale composting rather than making it harder. Is there a fee? I do not think that, even with all of his sites, he could get up to 2,000 tonnes—

Ms Sargent: If they did require an environmental authorisation, there would be a fee. That is like the commercial production of compost.

MS LE COUTEUR: He has a business, but his business is basically assisting individual sites, like the school—

Ms Sargent: If he is transporting the compost, it could be that it is captured under the Waste Management and Resource Recovery Act, because you have to have a licence to transport waste. That might be where the confusion is. If he is transporting the compost, he needs a licence under that legislation, which is Transport Canberra and City Services.

MS LE COUTEUR: That might be what he is talking about. I am not sure about that. Is there any quantity of compost that can be transported?

Ms Sargent: My understanding is that there is no threshold under that legislation for the transport of waste.

MS LE COUTEUR: I point out that people can go to Bunnings and many other locations and purchase compost. This is readily commercially available. I have purchased some from the south side market. It is not—

Mr Gentleman: The federal environment agency has conditions in regard to companies that are dealing in compost: how you transport it, how you ensure that the smell of the compost does not affect other people. There are those minimum expectations about companies operating in a certain manner.

MS LE COUTEUR: It is conceivable that some of the compost suppliers may not be operating 100 per cent along those lines. Maybe I should not go any further; I can think of a few places that I have obtained compost from which I suspect are in ignorance of this requirement. I will send the transcript to the constituent who talked to me about needing a licence for his composting and see if that will help.

Ms Sargent: If the constituent does have any questions, they can come to us. We can then point them in the right direction, in terms of what the specifics of the question are.

THE CHAIR: I want to go back to noise. I was thinking about a question that you

took on notice last year regarding a breakdown of noise complaints and the enforcement actions that were undertaken. One of our recommendations was that you detail them, so I am glad to see that in this report. With the Charnwood amplified music noise prosecution, last financial year there was an infringement notice issued, and that was what you provided on notice. Is this related to the same thing? There was an infringement notice issued in the 2017-18 financial year and there was a prosecution because the infringement notice was not paid, in 2018-19.

Ms Sargent: Yes, that is my understanding. It carried across the reporting year.

THE CHAIR: Is it possible in the future to make it clear if there are some that carry over? I appreciate that a prosecution is the next level. If there had been an infringement notice and then a prosecution, that would have been detailed here, wouldn't it?

Ms Sargent: That was what I had requested in terms of the team. It was in a bit of a transition. I was saying that the reporting is not quite clear; we need to have it clearer in terms of how it is actually recorded. We are finessing that, in light of your comment from the last hearing.

THE CHAIR: Even if you just remind us that prosecutions only come about, usually, if an infringement notice is not paid—

Ms Sargent: That is correct.

THE CHAIR: Refer to previous annual reports; that would be useful.

Ms Sargent: Yes.

Mr Gentleman: Certainly, with traffic infringement notices, there is a period to pay; then you can ask the appeals tribunal—

THE CHAIR: Yes, sure, I understand.

Ms Sargent: That is right.

THE CHAIR: You commented on 380 development applications referred from ACTPLA last year, 31 from the NCA and 593 other planning documents. Why usually is the EPA commenting? Is it to do with noise or is it to do with where a site is located and—

Ms Sargent: No, we are actually a mandatory referral agency. When it comes into the planning agency, if it is triggered that we are a mandatory referral agency—depending on what the nature of the request is, what the development is and if it is a variation—it is referred to us and we assist the planning authority and the National Capital Authority. We assist those agencies in the decision-making process because we provide advice relating to EPA matters across a whole range of things that we have the responsibility for that could impact on the planning process and the outcome. We will advise on land contamination, hazardous materials, air pollution, odour, noise and water pollution impacts. That is why we are a referral agency. We comment on any

matters that that—

THE CHAIR: Are triggered—

Ms Sargent: Yes.

THE CHAIR: In terms of breakdown, when you say that the EPA commented, can a comment be “no comment”, or are you always providing some level of substantive comment?

Ms Sargent: It would be very rare that we would have no comment. More probably for the National Capital Authority we might say “no comment”, but generally we will either be supporting what has been referred to us, giving advice to the authority or giving advice to the applicant in terms of things to be aware of, for example, on a construction site, that they need to have an environmental authorisation or an environmental agreement because it is this size of development. So yes, generally we provide advice.

THE CHAIR: Are you finding that what you are commenting on with DAs is becoming more complex?

Ms Sargent: Some are becoming more complex because of the mixed-use development—a number of those. There is a lot more that you have to consider in terms of the potential impacts because of what might be in a mixed-use development, for example, a gym in with residents and that type of thing.

THE CHAIR: So overall because of the complexity you are spending more time commenting on DAs?

Ms Sargent: I do not know that we are actually spending more time, because we are pretty efficient in reviewing it. It depends on the nature of the supporting information that comes with it and the location of the development. For example, if it is on a potentially contaminated site there will be extra steps that need to be taken so that we can ensure that the site is fit for purpose for that activity.

Mr Pryce: And obviously we comment in the hope that the development application has considered all the things so that subsequent issues are not then realised.

Ms Sargent: Exactly.

Mr Pryce: Again, there is a strong benefit in hopefully up-fronting that activity and getting compliance through understanding or whatnot.

THE CHAIR: Sure. You play a very important role.

Ms Sargent: In some respects we say, “You need to have a buffer around this area because of potential odour impacts or that type of thing.” I suppose the complexity of the issues that we are dealing with is so because of the nature of developments as things have come along and the planning system has evolved. However, with that, we have become more refined. We have guidelines that give the developer an indication as to what they need to consider when they are doing their development application as

well.

MS LEE: Sticking to table 9, the environment protection orders, you have the polluting the environment offence at Oaks Estate. Can you confirm the nature of that offence?

Ms Sargent: You might remember that that was a big fire in Oaks Estate at a recycling, a car manufacturing premises; it was late in the evening and it was a big fire. We put an environment protection order on them because there were some things in terms of looking at the management of liquid waste, of some of the products that were in the vehicles and also making sure there were appropriate sediment and erosion control structures in place, because they were close to receiving waters. So we put orders on them to make sure that they had better practices on the site so that it did not happen in future. They have undertaken all those rectification works.

MS LEE: So in terms of the works that were required to be undertaken, that has happened?

Ms Sargent: Yes. All conditions of the order were complied with and now the order has been removed, in September.

MS LEE: Have you got any more details on the specific rectification works that they were required to undertake?

Ms Sargent: We can give you what the specific works were. I think that there were about 10 conditions. Some were quicker for them to do and some not as quick to do.

MS LEE: That would be great, thank you.

MISS C BURCH: Contaminated land notifications: there were 14 received during the reporting period. Who is typically making reports on contaminated land? Do you know where they come from?

Ms Sargent: Typically, it will come from the environmental consultant or the auditor. When development proposals come in, we will say, "You need to have an assessment of the site." That is usually when we will be notified; in performing that audit or site assessment, we will be notified.

MISS C BURCH: What work does the EPA do to manage contaminated sites? What is the role of the EPA?

Ms Sargent: We require that they engage a suitably qualified consultant, they do the works and they send us a report to say, "This is the remediation that has occurred." We check the report by the auditor to confirm that we agree and they will probably say what the site is suitable for in terms of ongoing planning matters. We have a contaminated sites environment protection policy. That is available on our site, and that provides all the information in terms of how the contaminated sites are identified and the process that needs to be followed.

MISS C BURCH: When it comes to beneficial re-use approvals, there were, I

understand, 82 approvals for re-use of 329,000 cubic metres of soil. Where can ACT developers legally dispose of soil that they have removed from sites?

Ms Sargent: In terms of beneficial re-use, it means that they want to re-use the soil. We check that the soil meets the criteria to be re-used for beneficial re-use. For example, it might come out of a car park and they want to re-use it on—

Mr Gentleman: Road base.

Ms Sargent: Yes, as a road base or they want to use it on another development site as topsoiling. They may want it to go into New South Wales for some of their developments, for road base and that type of thing. We make sure that, having regard to what it was formerly used for, and when it was then stockpiled or whatever, it is fit for purpose for wherever they wish to re-use it.

MS LEE: If there is a circumstance where, say, it is not and it does have to be disposed of, does it get disposed of in the usual way?

Ms Sargent: It will then go to an approved facility that can take that soil.

MS LEE: What is the current status of the disposables that are going across the border? Is it just within the ACT or is it—

MISS C BURCH: If it has been disposed of—

MS LEE: Yes, if it has been disposed of—

Ms Sargent: It might be disposed of or it is being re-used. A lot of the beneficial re-use is actually across the border.

MISS C BURCH: In terms of disposals, is it often disposed of across the border as well? Do you have any figures on that?

Ms Sargent: With respect to how it is then used, I am not too sure. It then goes, so if it is for beneficial re-use, it is being re-used.

MISS C BURCH: But if it is not being re-used, if it is being disposed of—

MS LEE: Because it has been deemed to be not fit for purpose—

Ms Sargent: If it is just getting disposed of, it is probably being disposed of in the ACT.

MR MILLIGAN: What is the status of the land in between Tennis ACT and Yowani golf club in Lyneham, the contaminated land there that has asbestos? Do you have any update on the progress on that? Has that been applied to be repurposed or re-used at all?

Ms Sargent: I did not hear the first bit of your question.

MR MILLIGAN: The land between Tennis ACT, located in Lyneham, and Yowani golf club; there is land there with asbestos on it. I know there are plans to develop that site.

Ms Sargent: Any plans to develop the site will have to follow the contaminated sites assessment process. In that process that is followed, what uses the land can be used for will be determined, then they can do a development application to re-use the land or to develop the land.

MR MILLIGAN: Nothing has been put forward yet that you know of with that land in particular?

Ms Sargent: I know that there are plans to redevelop the land, but—

MR MILLIGAN: Nothing official there.

Ms Sargent: A development application will go to the planning authority and it will then be referred to us.

MS LEE: Environmental protection agreements: are there any current contaminated or potential sites that are of concern to the EPA at the moment?

Ms Sargent: Environment protection agreements are triggered under the legislation. The bulk of the environment protection agreements are to do with building and construction. They are required because the large developments have a sediment and erosion control plan. That involves a number of the developments in terms of what is happening.

In terms of what is of concern to us, they are part of our proactive engagement to ensure that on those sites the proper sediment and erosion controls are in place. For example, leading up to the Christmas shutdown, we are going to do some proactive inspections with Transport Canberra and City Services because they have their new litter legislation. We will make sure that those sites have all of the controls in place so that over the shutdown there is nothing blowing off the sites; if there is a rain event, there are no sediment and erosion control matters. We will work with the SLA. We will target those new developments where there is potential exposure because there are not a lot of buildings in place. As I said building and development is a growth activity, so we are very actively working in that space to ensure that any environmental matters are minimised.

Mr Gentleman: Mr Milligan, I had a quick look on the DA finder app and I could not see anything for that—

MR MILLIGAN: Okay, for that site yet; thank you.

MS LEE: You might want to take this on notice: there are a couple of sites in Hume and Fyshwick where there has been a bit of community concern about some of the proposed activities. I understand where it is up to at the moment, but are there any concerns that EPA currently has with those sites?

Ms Sargent: For those sites, again, they will be subject to a development application.

MS LEE: In the same way?

Ms Sargent: In exactly the same way. Once again, in regard to the question about whether we comment on development applications, we will provide our comments through that referral mechanism back to the planning authority; then it will be dealt with in that way.

THE CHAIR: We will now suspend the hearing until 10.45.

Hearing suspended from 10.33 to 10.45 am.

THE CHAIR: We now resume our annual report hearings for the Standing Committee on Environment, Transport and City Services. We will consider the Conservator of Flora and Fauna, environment and conservation and land management areas.

MS LE COUTEUR: The swift parrot is critically endangered in the ACT. It breeds in Tasmania during the summer and migrates north to the mainland for winter. The ACT released a conservation advice for this species in 2019; however, the swift parrot action plan, which is, I understand, part of the ACT lowland woodland conservation strategy, was released in 2004 and needs updating. When are you planning to produce an updated plan for the swift parrot?

Mr Walker: The advice provided by the scientific committee outlines the actions required for the swift parrot. That is an important step in the next step, which is the development of an action plan. We will be actioning and preparing the action plan, recognising the advice of the scientific committee to inform that action plan.

MS LE COUTEUR: Do you have any timeline for this?

Mr Walker: The woodlands strategy, as released this week by Minister Gentleman, articulates the development of the action plan for the range of species that are woodland inhabitants. We will be commencing that process this year and developing that action plan.

Mr Gentleman: We have learnt quite a bit about what is occurring since the original 2004 plan. Since that time we have added 1,156 hectares of woodlands into our combined areas, which brings the total amount to now 70 per cent of 79,000 hectares of woodlands. They are managed and protected by both our parks and conservation people and volunteers across the ACT. That will allow us to increase the activities in the woodlands. We have put out information to the people who are managing the woodlands too, to increase the habitat for these endangered species.

MS LE COUTEUR: Great. My understanding is that there is a federal review of the EPBC Act underway. Will you be advocating in that forum for better outcomes for threatened species, including the swift parrot?

Mr Gentleman: Yes, certainly. We had a minico on Friday where we were successful

in ensuring a national approach to banning opera house yabby traps across Australia, which is good. We have done it in the ACT but other jurisdictions are still using it. That is the forum to promote those sorts of ideas and actions for the future, particularly in regard to endangered species.

MS LE COUTEUR: Are we specifically doing anything as part of the review of the EPBC Act?

Mr Gentleman: Yes, we are working on it.

Mr Walker: There are two components of that. That has only just been announced recently, so we will be contributing to that review. To complement what the minister has said about threatened species and the listings, over the course of the past year we have been aligning both the commonwealth listings for threatened species and the ACT listings for threatened species so that they read identically in terms of their threat status for particular species. That is the process that we have in place. We now have a line between the commonwealth listings under the EPBC Act and the territory's listing under our Nature Conservation Act.

MS LE COUTEUR: The golden sun moth is still listed as critically endangered. I am aware of development proposals. I went to a picnic to commiserate for the golden sun moth in the national capital area, your park, a couple of weeks ago, minister. Are we doing anything about the development on golden sun moth areas? I appreciate that that particular instance was in a national capital area, but we also have the land within the clover leaves—I cannot remember its section number, but when I say the land within the clover leaves you know what I am talking about—which I understand also has golden sun moths.

Mr Gentleman: The whole list of those threatened species that we talked about in the woodlands strategy is on the your say website. Just go to your say and then forward-slash “woodlands” and you can go see all the lists there. The sun moth has an action plan that is listed in there as well, and you can download the PDF to see what has been occurring there. In regard to the—

Mr Walker: The golden sun moth is nationally listed as well. Those areas that have the potential to be impacted by any form of activity, whether that be development or other things, would require an assessment under the EPBC Act. Those are the sorts of processes we would undertake, if and where required, if a proposal of any sort was impacting on those, on ACT—

MS LE COUTEUR: On ACT land as distinct from NCA? I appreciate the—

Mr Walker: On both accounts. Whether it be NCA land or territory land, there would be some form of assessment based on the EPBC Act requirements.

THE CHAIR: The superb parrot: looking at its conservation advice from this year, it has a decent reporting rate. It appears in the development area of Molonglo. What is being done there to support its population or not endanger it further?

Mr Walker: There are a number of key steps in terms of particular birds. But in

particular for birds that require nesting hollows we have installed a range of artificial hollows through those areas, because of the previous loss of habitat going back many decades. We have been able to reinstall and reinstate trees, or artificial trees, that provide nesting hollows for things like superb parrots. That is a very innovative approach to a problem where we do not have trees generating or regenerating over time. This gives us a chance to ensure that we can plant trees now while still maintaining a population into the future. It is an important strategy for ensuring that hollows exist today until trees mature to a point of being able to sustain nesting birds.

THE CHAIR: And we have a focus in that area in terms of reported sightings before development and then, as development continues, with these artificial hollows?

Mr Walker: In the case of this species we have a range of techniques to monitor them, including cameras. We have a number of cameras installed in both artificial and natural hollows. That gives us an ability to monitor the population over time. We have seen a maintenance of the population of these birds over the course of the past few years, which is a real credit to the work of our teams in the parks and cons space in establishing those artificial hollows, and also in terms of the ability of the ACT to support populations of threatened species, because we have such a large volume of natural habitat in the ACT. Some 70 per cent of the ACT is protected in parks and reserves. When you consider that compared to the IUCN threshold of 17 per cent, we are certainly kicking above that in a jurisdictional context, which is, in an international context, a very significant position that the ACT is in.

MS LEE: I want to ask about bettongs, while we are discussing threatened species. I think everyone is aware of the release that was not successful. What assessment has been done of that? Also, what is currently being done in terms of trying to make sure that it does not happen again?

Mr Walker: In terms of bettong recovery—another threatened species here in the ACT—we have been fortunate that we have been able to breed bettongs well in our fenced enclosures. At Mulligans and Tidbinbilla, we have populations of bettongs that are now flourishing thanks to the fence regime, which keeps foxes and cats out. Obviously, a fence plays a critical role in that.

Like all evidence-based and adaptive management approaches, in terms of dealing with threatened species, we need to undertake research and we need to undertake trials to assess whether the environment where these animals live would be suitable for reintroduction. Releasing bettongs into an area that had been previously controlled for foxes, with the explicit aim of seeing whether we have the fox population down at a level that can sustain a population of bettongs in the wild, was the purpose of that work.

Unfortunately, what came out of that was the demise of the bettongs. That is not a good outcome, but from a science and an adaptive management and evidence-based perspective, it actually really helps us, because it informs us that, while we think we have had the fox population suppressed, it is not at a level that can sustain bettong population. The reason we have bettongs and critical wide-range mammals threatened is fundamentally because of foxes and cats. That is where we need to focus our energy outside fences, and I will come back to that comment in a minute. We need to focus

on how we suppress cat and fox populations in the ACT and the broader landscape so that not only bettongs but other small mammals, birds and reptiles which foxes and cats consume can survive.

In the urban landscape we do not have a very good means of controlling foxes and cats, apart from cat containment and other means for people to manage cats. Foxes are through the urban landscape and they are through the national parks reserve area. We need to implement a range of strategies to reduce those populations further, to enable critical wide-range mammals to survive.

The strategies employed at the commonwealth level, therefore directed through the EPBC Act and other areas, is through the establishment of fenced sanctuaries. Here in the ACT we have been able to extend the Mulligans fence. The strategy there is how to have an ecosystem that is functioning, where animals self-sustain in that environment that is effectively a sanctuary protected from foxes and cats.

The Mulligans experiment, a partnership with ANU and with the Woodlands and Wetlands Trust, is really about pushing those envelopes. It is about exploring how we get more threatened species recovering in that space; how we see those animals moving in and out of the landscape in a protected environment.

I live in Forde, and it is great to see and hear a number of species that are making their way over the fence. A number of birds, for example, have been able to breed up within the sanctuary and are now resident within the Forde area. Quolls have been able to remove themselves from the fence and are now starting to pop up through the Forde community as well. This feature of animals within sanctuaries and moving out into areas that are protected from foxes, cats and other predators is often referred to as the halo effect. It was coined in New Zealand, at a place called Zealandia, which is a predator-proof fenced area in the heart of Wellington. Mulligans, and the experiment we have there, is really mirroring the work of Zealandia. The minister and others have been able to visit and see firsthand what can happen when a sanctuary is established to protect these threatened species that we have in the ACT.

This is unique in the Australian context because many of our sanctuaries are in remote areas of Australia, not in this urban interface. The fact that we now have a very strong community in Forde that is passionate about looking after the sanctuary, and the flora and fauna that move in and out of that sanctuary, is a real credit to the ACT community. We have people on their mountain bikes, we have walkers, we have lots of different people going in and out of the sanctuary highlighting and connecting with a place which is unlike many of the sanctuaries that are in Central Australia that do not have that same visitation and do not connect with community.

Mr Gentleman: I can recommend a visit to Mulligans Flat; it is fantastic.

MS LEE: I have been, and I have been very impressed—the twilight tour.

Mr Gentleman: Yes, it is wonderful. I got to do it with Brian Schmidt, so on the way back from looking at the bettongs we talked about stars and the universe as well.

MS LEE: I have a general question. Could you outline the process for listing new

species on the threatened species listing? What has been listed in this reporting period, and how do the protections differ?

Mr Walker: I will start with the process of listing. With the process of listing species, there are a number of steps. Firstly, there is an assessment by the community and ourselves that a particular species may or may not be listed. They can propose a listing to the scientific committee. The scientific committee, with the support of the directorate as a secretariat, look at what threats or issues might exist for that particular species. Typically, that entails research, literature reviews, understanding what other jurisdictions are doing, in particular New South Wales or the commonwealth, and what the species distribution and abundance look like in the ACT, if known.

Part of that advice is then assessed by the scientific committee and they prepare conservation advice for the minister. The minister then makes a determination to accept or reject that conservation advice; subsequently, an action plan is prepared by the ACT conservator. That is the process for undertaking that sort of activity.

In terms of action plans and strategies that we have done to support those listings, the minister released the aquatic and riparian strategy, which outlined how we would look after particular aquatic and riparian environments. That also included a number of action plans associated with those environments. It included the two-spined blackfish, Macquarie perch, Murray River crayfish, silver perch, trout cod, and cod. There are a number of fish species in that space. There are a number of plants as well. The Tuggeranong lignum is an example of that sort of activity.

MS LEE: In the reporting period, you have just outlined some of the species, but is that the totality of them?

Mr Walker: No, it is not the totality; there are others.

MS LEE: I would be very surprised if it was.

Mr Walker: They are listed in the annual report. I can go through those, if you like.

MS LEE: No, that is okay. I just wanted to make sure that they were available for the public to see.

Mr Walker: That is right. In terms of publicly available information, they are all available on our website and information is openly available to the community to look at what actions and strategies are being implemented.

THE CHAIR: I have got questions about feral animals, particularly horses and deer, and I want to start with deer. If anyone needs to come to the table, feel free. It might just be you, Mr Walker. We have asked about deer in these hearings in the past and I believe I was told that, while it was a concern, it was not a huge concern. I have recently received different advice to that, that there are four different deer species in the ACT and that some have made their way to the Botanic Gardens. I am curious to know if this is true and, if so, what we are doing to address this, given that deer are notoriously difficult to catch and love terrain that is hard to get to.

Mr Gentleman: We were really concerned about the impact of sambar deer coming into the water catchment and, in a previous budget allocation, provided the directorate with some money to deal with that incursion. They have a particular process which means that they can pollute the water coming into the top end of our catchment. We were successful in that.

However, we have now seen incursions from other types of deer in the area too, and we know that hooved animals cause the most damage to particularly the sphagnum bog areas in the upper parts of the Cotter River and our catchment, pristine water catchment areas. We are very concerned about the incursion of more deer and feral horses as well.

We have been able to deal with feral horses through our feral horse management plan in the past and have been successful in removing horses from there but we are very concerned about the number of feral horses that are now in Kosciusko National Park very close to us. And there has been some evidence of stallions visiting the top part of Namadgi as well. I do not think we have seen actual horses yet; we have just seen the product of the horses, if you like. But I will ask the director to give you more detail.

Mr Walker: Deer are a significant problem across the country. We have six species of deer in Australia. We have three within the ACT that we know of. Those three include red sambar, as the minister has mentioned, and fallow deer. We are not aware of any reports of deer coming into the areas that you have mentioned but we will certainly further investigate and clarify that.

As the minister highlighted, we secured some investment last year to deliver some aerial control of deer in some key areas around the Bullen Range nature reserve, the Molonglo nature reserve—

THE CHAIR: By “control”, do you mean culling or dropping bait or—

Mr Walker: Culling by our helicopters. Because of the terrain where the deer are, it meant that we did need to be in an aerial situation and therefore able to take action to remove deer in that space.

The importance of those programs is twofold. Firstly they have an impact on native vegetation and water quality, through their browsing, grazing and rubbing behaviours and digging behaviours. They have a number of impacts on vegetation and water quality as well. In many jurisdictions the water quality issues have been driving control of deer. That is an important consideration.

The other consideration is: as deer move into the urban environment they become increasingly difficult to manage because they come onto sporting fields or other areas and therefore operations such as culling of deer on a sportsground or a schoolground is not as palatable as a location in a national park, to be blunt. Other jurisdictions around us in New South Wales are faced with that issue where they have large volumes of deer in and around their urban centres and, therefore, are very difficult to control.

We know, from our experience in managing kangaroos and the impact kangaroos

have with vehicles, this calendar year we have had some 4,000 callouts to kangaroo and car-related accidents. In the main, we have been able to deal with that. And in the main, kangaroo and car collisions are of a less serious nature. But if you think about—

THE CHAIR: Is 4,000 an increase on previous years?

Mr Walker: Yes, it is.

THE CHAIR: How much?

Mr Walker: Can I come back to that one in a moment?

THE CHAIR: Of course.

Mr Walker: I will just finish the discussion about deer and then come back to the kangaroo space. The issue with deer is that, because of their centre of gravity, a deer and car collision would see deer come onto the bonnet of a car and, therefore, into a windscreen et cetera, associated with a collision. They become more problematic in terms of car and people interactions, particularly in the open environment.

THE CHAIR: I will finish on deer and then maybe we can do kangaroos, and then quickly horses—if you prefer other people to jump in on these as well. With deer, I appreciate that you are investigating whether they have got into the Botanic Gardens but what evidence do we have of how far into the ACT they are?

Mr Walker: Through our aerial surveys, pre the operations to remove them, we observed them in outer areas of south Canberra but not into the suburbs. The fact that you are reporting them in the Botanic Gardens is a surprise.

THE CHAIR: It is pretty central.

Mr Walker: Yes. The strategy was very much deliberately to try to keep them out of coming into the urban areas of Canberra. If that is the case, we will investigate that further and see what options we have available.

THE CHAIR: You have not had any reports until today that there have been any deer sighted in suburbs?

Mr Walker: Correct. And certainly from my discussions with the head of the Botanic Gardens, Judy West, in the last fortnight, if there were deer in the Botanic Gardens Judy would have been very blunt.

THE CHAIR: On kangaroo and car collisions, you mentioned that is an increase this year in terms of callouts on previous years. How big an increase is that?

Mr Walker: Over the past decade we have seen an increase in callouts to kangaroo and car collisions. And that has been a steady increase. I will ask Mr Foley, who is the acting director of the parks and conservation service to come and join me. Justin will be able to give you a few of the facts and figures around our kangaroo management program and the interrelationship with people and cars.

THE CHAIR: I am keen to know about that sterilisation stuff that was going on with kangaroos as well.

Mr Walker: Okay.

Mr Foley: Utility management. We will start with the urban wildlife issue. Just to carry on with the point Ian was making, we have seen increasing numbers of incidents on our roads with urban wildlife, predominantly eastern great kangaroo, and we, as an agency, have a wildlife program which is focused on managing this risk, which sees rangers available 24 hours a day, seven days a week to deal with this issue.

THE CHAIR: And our thanks to them.

Mr Foley: It is a significant commitment of the parks service to manage that risk. It is fair to say that we have seen a significant increase in the numbers that we are attending each year. Ian cited numbers showing the recent increase. I think we are really, if you look at the past three or so years, looking at around 3,000 incidents that we attend each year as rangers as part of the wildlife program. We have seen peaks of over 4,000. We are seeing a trend upward and we are seeing trends associated with seasonal conditions.

If I could just backtrack a year, in 2018 the drought started to kick in. We started to see impact on our reserves: less feed, as your herbage is mass produced, and movement, I guess, from kangaroos out of the reserves and towards feed on roadsides and into the suburbs. You can see that there is a strong interaction between populations of the previous seasons—the increase in kangaroo populations—and then the adjustment that occurs when you get a dry season. Kangaroo populations increase very quickly when feed is available. It is a bit of a boom-bust cycle.

You are seeing that reflected in the issue of wildlife on our roads. It is an issue of pressure on us as an agency but one that we are managing, but just acknowledging that it requires a great deal of expertise from the staff. If you think about what it means to go to attend an incident on a road, you have an injured animal; you have an animal welfare dimension; you have a community member who has hit a kangaroo and is concerned enough to ring Access Canberra and have their call directed to us; you are managing the community and the stress the community member is under. And you are going out into the field, on a road. You are managing traffic and the broader community as well. It is a really challenging issue for us but one our staff deliver on, I think, very professionally.

THE CHAIR: Are we modelling where we think those kangaroo numbers are going to go with the drought and collisions in the short and the longer terms? Are we going to see numbers of these collisions in particular trend up and then trend down as kangaroo numbers are diminished due to the drought?

Mr Foley: I think it would be reasonable. We are monitoring every incident, so we know where all incidents are occurring. We are able to map where they are occurring and at what times they are occurring, so we are understanding what is happening on our roads. Just to step back, we will see a general trend. It has been an upward trend.

There is a seasonal variation but we are managing an upward trend. You will find that there is a combination of geographical funnels that direct kangaroos. It might be a creek line or it might be a ridge that funnels kangaroos to particular points. We have done work with TCCS to put fences in along Tuggeranong Parkway, for example. So we are seeing changes where kangaroos enter the road. I guess that—

THE CHAIR: Would it be useful to put up some signs in those high-collision areas warning drivers, particularly in the drought conditions as kangaroos are looking to—I assume they are looking to—water run-off from the roads and things like that.

Mr Foley: They are looking for the pasture effectively: food and water.

THE CHAIR: Would it be useful to erect temporary signage just to give people notice; so that they are driving with more care?

Mr Foley: Certainly. It is something that we are discussing with Roads ACT. It is a shared responsibility between us and TCCS.

Mr Walker: There are a couple of key points that Justin has touched on. Population numbers of kangaroos are growing, and collisions are escalating from a combination of kangaroos moving from the more natural environment to an environment that is watered and green and pastured, e.g. a sports ground. We are seeing that escalation. We are seeing more people, more drivers, more cars, therefore more collisions. We also know that most of our collisions occur at the dawn and dusk stages, so we have that information. And most collisions occur during the winter period, which might sound surprising, but that is when we have the majority of our collisions, because it is predominantly darker. So our challenge in this space collectively is growing populations—people and kangaroos—incidents occurring more frequently, incidents involving the community: a car at night, with staff going out to do that work. We are managing and working through those risks. We are at the point where that is a piece of activity and work that the parks and conservation service are providing for the community 24/7.

THE CHAIR: Are there any legal complications as to whether New South Wales feral horses can be culled once they enter the ACT, given their status in New South Wales?

Mr Walker: Because we have declared feral horses as a pest species, we do have the ability to cull those animals once they come into the ACT. Our operation is typically to trap and then to euthanise. That is the standard methodology. That does give us the ability to also assess whether the horse has any form of identification that would eliminate it from a domestic horse that might have escaped. Part of the process, if we had horses in the ACT, would be that they would be trapped and then assessed to see whether they had any identification. If they had an identification saying that they were from a particular property, or a tag, we would then contact the owner and ask them to come and collect that horse from said trap.

THE CHAIR: So no matter what New South Wales says about the status of their horses, once they step over the ACT border, they are done for?

Mr Walker: Correct.

THE CHAIR: Good. Encourage them over so we can bump them off.

MS LEE: Minister, did you say earlier, when you raised the feral horse management that is working well, that we had not actually spotted one coming across the border? Can I just confirm that? I thought that is what I heard you say.

THE CHAIR: I thought you said you had not seen one but you had seen evidence.

Mr Gentleman: That is correct.

MS LEE: So you had not actually spotted one with the surveying—

Mr Gentleman: No. They are very close, we understand, in Kosciuszko National Park, but at this stage—

MS LEE: There has not been a spotting.

Mr Walker: Correct. We have not had any incursions coming into the ACT into our parks setting. There are some reports of, say, domestic horses coming from some properties into the ACT, but that becomes a landholder issue to manage, which is slightly different. But in essence we have not had any incursions into the ACT.

I attended the parks agency “heads of” recently. All of the park agency heads get together and discuss a range of issues across the country. Fire management was one of those key topics. Joint management was one of those. Horse management was the other one—Victoria and New South Wales. It is very topical because of the impact on the natural environment. As the minister has highlighted, hard hooves and a very fragile environment do not go well. They bog the area up, which ultimately affects water quality. When you consider that the Alps provide the foundation for the Murray-Darling system in terms of the Murray, in terms of water, it is a significant issue that needs to be grappled with across the country, not just from the jurisdictional perspectives that it is currently being tackled from.

The ACT is very fortunate to be in a position where we have been able to keep horses out and continue to do that. We have a horse management plan. That management plan is currently being reviewed so that we can keep abreast of the most recent technical advice and information about how to manage horses if we do have an impact, and also the research and other information that helps us better prepare and better manage horses if we have to in the ACT. That piece of work has commenced and we look to finalise that in the new calendar year.

Mr Gentleman: They can do incredible damage to pristine habitat, particularly around the bogs and fens that we have at the top of the catchment. You would have seen recently a media release about our successfully releasing new corroboree frogs back into that environment after breeding them up in Namadgi. So it is not just the water that is incredibly important but also that habitat for those endangered species.

MS LEE: Of course.

MS LE COUTEUR: Going down to the smaller end of the feral species, is cat containment working adequately? I noticed that cats did not seem to really score a mention but they are presumably one of our more prevalent feral animals.

Mr Gentleman: They certainly predate on native species, particularly birds, and are one of the strongest predators I think we see in those areas, so we do have to take as much action as we can.

MS LE COUTEUR: Could you talk about that? As far as I am aware, basically all there is is the cat containment areas, which are very limited; and my understanding is that, while they were well observed by initial residents, people who move in subsequently seem to be in ignorance that this is even a thing and so do not observe it. For members of the public who find feral cats, what can they do?

Mr Walker: On the finding of cats and feral cats, I might come back to that comment in a second. I just highlight that the ACT is in a process of developing its cat management plan. That—

MS LE COUTEUR: Yes, I put a submission in to it.

Mr Walker: really is talking about all cats being owned and cared for by responsible pet owners. In a whole of ACT context we need to understand that people have a very strong association with their cat and so want to look after it. Cat containment works very well. In the surveys and responses that we have had to date they indicate that where people own cats they cherish them and are very happy for them to be contained within their property. We will continue to work through our strategy and the development of the strategy to inform the final cat plan. That deals with the people owning cats.

The issue of cats that are not owned is when we need to start to look at strategies working with the RSPCA and vets and others to manage those populations. In the natural environment, as you have highlighted, they are very difficult to manage. There are a few cat baits that can be deployed in a national park to assist in controlling cats, but it is very difficult. The only places where cat control has occurred and has been beneficial is where it has been on islands. We have not had good examples within mainlands where we have been able to control cat populations. In the ACT context that means our sanctuaries, the places we all keep completely cat free, our national parks and other reserves will endeavour to control cats by ensuring that the owned cats are not out there and also, if there are populations of cats in this urban interface area, encouraging the spotting of those, the reporting of those and ultimately the trapping of those particular cats.

MS LE COUTEUR: Where would you report a sighting—Access Canberra?

Mr Walker: Access Canberra. All of those sorts of occurrences would be reported through the normal mechanisms to Access Canberra. The option then, through Transport Canberra and City Services, which is where the majority of domestic animals are managed from, would be the deployment of traps or other activities. It is time consuming and a challenge to do that. That is why cat containment ultimately is

the best strategy, and over time that becomes an effective tool.

MS LE COUTEUR: So TCCS actually has traps that you can get from them?

Mr Walker: I believe that that is the case. Can I come back to you on that particular point?

MS LE COUTEUR: Thank you, Mr Walker.

MISS C BURCH: Turning to output 2.1, water policy and catchment management, what is next for the ACT healthy waterways project now that the 20 main projects have been completed?

Mr Gentleman: The waterways project has so far been incredibly successful and I thank all our team for the work that they have done, and the commonwealth also for the funding, which has been fantastic. I have seen a real increase in the amount of plant life growing up now at the water gardens, particularly around my area down at the Isabella Pond area. It is fantastic. The next steps, Ian?

Mr Walker: I think the minister has highlighted the success of the 20 projects in terms of their work in establishing wetlands. A key component of that between now and the next few years is their establishment of native plants. They have been planted out and they will progressively grow and become established. That provides the important function that we are seeking, which is to trap nutrients before they enter the lakes and waterways across the ACT. That is the foundation purpose.

The value-add, and we are already starting to see that now, is the range of biodiversity—birds, frogs, mammals—starting to move into this landscape that has been created. We are now starting to see those things happen. The success of that program is now starting to come to fruition.

Where to from here? We continue to invest in the H2OK program, which is about highlighting how the community can prevent nutrients entering the waterways from their properties—no flushing of things down the drain, whatever those things are, whether they be leaves or washing of cars using a range of different chemicals—but really just trying to reduce the amount of nutrients going into the waterways. That starts with every member of the community and all agencies across government.

That program continues. We have reached out to our catchment partners, the catchment groups, who will now take those messages and continue to roll them out with our community across the ACT. They have been enabled and supported, through the ACT government, in funding to continue with the H2OK education campaign.

Those same catchment groups have also been supported in maintaining wetlands developed through the healthy waterways program to maintain them over time and to develop, effectively, healthy waterways volunteers, ParkCare volunteers or other volunteer groups, that are now starting to develop around these waterway sites. They are recording information. They are putting that onto a nature map so that we can see what new species are emerging in these locations. They are also really starting to say, “Actually we need to do a bit more planting here. Those plants died,” or “Those ones

need to be replaced.”

The community are now starting to own those sites and really starting to manage them, in partnership with both the parks and conservation service, which is the land custodian in a number of cases, and, importantly, Transport and City Services, who are the manager of the asset. Those partnerships are really starting to show good results both from a community resilience-building perspective and community networking point of view but also from looking after the catchment.

MISS C BURCH: How is the effectiveness of the H2OK program being measured?

Mr Walker: The effectiveness of all our programs is really assessed in terms of: are they resulting in a change of behaviour across the community? I might hand over to Mr Foley here, who, apart from the uniform that he is in today, was also the project manager of the healthy waterways project from its initiation. Justin was instrumental in designing the program logic associated with the healthy waterways program.

Mr Foley: The question being around how we are actually monitoring or measuring the effectiveness of the behaviour change program, it is pretty simple in its genesis in that we are really looking at the reasonable expectations of what change we could achieve in community behaviour within the time frame the project has been running. In the period that we have been working on it, it has really been about measuring community awareness of issues, which we have been doing through surveys—looking at community awareness, understanding the nature of the problem, understanding what opportunities they have to make a positive contribution and then getting a sense of whether they are actually prepared to act. There is an ongoing survey process to help us tease those sorts of things out.

When you are looking at a behaviour change program, in reality that does take a long time to shift the community. It is quite a steep learning curve, if you like, for the individual householder to really understand what it is they do around their home that has an impact on water quality, whether that be what they pour down their drain, or whether it be how they fertilise their garden or how they water. There are so many different dimensions there. Really we have been targeting awareness and understanding of the problem to date.

MISS C BURCH: Have you measured any material reduction in the amount of pollution entering waterways or is it really just focused on awareness?

Mr Foley: At this stage it is really focused on that. We have the capacity through our water quality monitoring program to measure at certain points in the ACT changes in water quality and we do that through a series of monitoring stations. We have also got the Waterwatch program, which is a community-based community science program where community members take responsibility for measuring water quality at particular reaches in our waterway system. It is a combination of data that we pull together to tell us what is happening in the system, and the behaviour change program, which is more about understanding awareness and capacity to act.

Mr Walker: The catchment health indicator program or the CHIP is really the community’s tool, referred to as Waterwatch, that we have been delivering over a

number of years with the community, and at multiple sites across the ACT we have been able to monitor the condition of water quality and report on that annually. That is a very powerful tool for us to inform the success of the healthy waterways program but also our catchment health overall and gives us a sense of whether our catchments are in good condition and therefore the water quality within that space is valuable as well.

An additional component of that in terms of data monitoring is also monitoring flow regimes within the catchment. By understanding flows, by understanding nutrient loads, we are better able to predict and inform when a potential blue-green algae outbreak is likely to occur. For the first time we have actually been able to have data and modelling through the Chief Digital Officer and our data lake—pardon the pun. That gives us the opportunity to really home in on: “Okay, where are these trends in flow occurring and trends in nutrients occurring so that we can predict blue-green?” It also allows us to be pre-emptive in that if there was some flooding occurring we would be able to predict that early or see that information in real time and send an alert to our emergency services colleagues, who would then activate their emergency management regime to mitigate or manage that.

That is quite a transformation in terms of the use of data and the information to effect real-time decision-making for our colleagues in other parts of government. That is a credit to a number of the team, from Justin’s leadership in the healthy waterways space through to the people doing the data management end of the spectrum as well.

Mr Gentleman: I think a good example of what you can achieve out of doing water quality control, particularly around rain gardens and those sorts of eco-ponds, was tested with Norgrove Park, which is in Kingston. The water data collected from the pond over a period indicates that wetlands can show a really good result.

The total phosphorus was 77 per cent caught in the pond, and our water sensitive urban design targets were only 45 per cent. The total nitrogen collected was 62 per cent and our targets were only 40 per cent. And 66 per cent of the suspended solids were caught in the rain garden, and our redevelopment site suspended targets were only 60 per cent. They can be incredibly successful.

MS LEE: Is that going to be replicated elsewhere, given the—

Mr Gentleman: Yes. That was only the first test, way back when we were doing Kingston. That is now being replicated in the healthy waterways projects right across the ACT.

Mr Foley: Just to add to that, each of the healthy waterways wetlands, ponds and rain gardens was designed and modelled according to their pollutant reduction—if you like, their ability to process. We have got a very good handle on what is expected, what sort of pollutant reduction we will expect when the wetlands are working at their full capacity and through their life cycle. And we will be monitoring to make sure we are ground treating that data. It is well understood that these assets will be helping us deal with sediment, phosphorus and nitrogen, and we understand how each of those assets function in terms of trapping those as well.

MS LEE: Just going back to what you, Mr Walker, mentioned about having this new data available that predicts the outbreak of blue-green algae and also flooding, how long have you had access to this new data?

Mr Walker: Obviously the data gets collected all the time now.

MS LEE: Just in terms of processing, yes.

Mr Walker: Yes. It is an ongoing process. The information about potential flood events—that system is now operational. We are actually using that now in real time for events, with our colleagues in ESA. It is only relatively recently that that has occurred. That has built on the work that was done by the directorate around flood mapping. You will recall that last year flood maps were released across the ACT that highlighted where there would be potential inundation in a one in a hundred year event. That information and those maps are now publicly available. That information obviously supports an education program and communication with our colleagues in ESA, and the data component is now what we have built onto that, additional to the flood maps.

MR MILLIGAN: What has been done over the past 12 months and what are your plans going forward in remediating or improving our local grasslands across the ACT?

Mr Walker: The first part of any conservation strategy is identifying where grasslands are and ensuring that they are protected in a form of land tenure that provides that. The establishment of parks and reserves, the establishment of nature reserves, is a key component of protecting the impact on grasslands from a range of sources.

The next strategy in terms of managing grasslands is to manage their biomass, or grass levels. With respect to key components, we have what we call a biomass working group, which is a group of ecologists that look at the level of grass that occurs across the landscape. That level of grass actually informs a number of strategies and approaches. It informs our kangaroo management program. Grass levels will dictate the volume, the number, of kangaroos that an area might sustain. They also suggest the level at which other grazing animals, such as stock to control particular grass levels, can be introduced.

Our strategy around managing grass and native grasslands is the management of the inter-tussock space, the gaps between each of the tussocks. That becomes a critical element in enabling threatened species, the earless dragon and those types of things, to move through the landscape, as does the height for things like sun moths.

There are a couple of different ways of managing it. The objectives that we are managing to are really the key components—to have the area protected in some form of appropriate land tenure and introduce a range of objective-setting measures to deliver on a conservation objective. That might be to maintain grass at a certain height, tussock space or species and also to introduce the appropriate grazing for those areas, and monitor and assess those things over time.

Mr Foley: We have been focusing on this area. As Ian mentioned, we have grassland strategies in place. We understand the ecology of grasslands. We have our strategic priorities. One area in which we are really pushing ahead in the parks space, and working right across the environment division and across the directorate, is in better use of data to inform management.

We have been working as a group. Ian referred to the herbage mass working group, which is a horribly named working group. If your grasslands are really dry, your ecosystem, we know what values we are trying to protect in the grassland. We have now collected quite a deal of data, through regular monitoring and through specific monitoring that we are doing as part of the offsets, which are predominantly based in our grasslands.

We are developing data management tools that help us to analyse in real time how our grasslands are responding and what the particular management response might be. As Ian said, we might be working through grazing; it might be mechanical; it might be slashing; it could be fire. Again, the management of kangaroos in our reserves is also a part of that grassland management strategy. It is about understanding that we are moving more and more towards using data in real time to help us understand directly what our management response should be in the season.

MR MILLIGAN: In terms of your strategy going forward, what external groups or bodies do you consult with in developing this strategy to ensure, in effect, that you have more native fauna and flora and eradicate all of the introduced or pest flora and fauna? What groups have you consulted with?

Mr Walker: There are a range of groups that we are involved with routinely. We have a scientific advisory group that provides scientific advice. We have an NRM council that provides advice in that space. We have a friends of grasslands providing advice to us. Add to that the ParkCare volunteers, who are out there day in, day out doing a range of activities. We are connecting with the community in lots of different ways.

They will also undertake work on our behalf—things like removing weeds or spraying weeds. We have provided some grant funding to support a number of our catchment groups with some new equipment to help control weeds—basically a steaming device that enables heat to be placed onto particular weeds to kill the weed and stop it germinating, and seeds. Those sorts of people, those sorts of community groups, are actively involved in it.

We also do things in terms of rehabilitation. The top layer of soil often contains significant volumes of weeds. In some instances we have scraped and removed that top layer of soil, which is where the weed seeds are. That technique was developed by Greening Australia, one of our partners in delivering a range of activities. Greening Australia have been not only the leaders in grassland restoration in this sort of environment but also very helpful in and supportive of our work in the broader NRM space about planting trees and establishing more trees in the ACT landscape. Our partners are multifaceted and engaging at different levels, depending on their expertise.

Mr Gentleman: Can I add something about Greening Australia's work? They have been incredibly good at being able to convince rural landholders on tree planting. Traditionally, rural landholders have said, "We just want an open paddock. We don't want any trees there." Greening Australia started with the proposition of perhaps doing tree planting down their roadways, then particular segmented areas within their pastoral areas for tree planting. Rural landholders have seen success with that, in being able to produce more grass for their stock around trees. Yesterday we did some more planting at Amberly, at the bottom of Kambah Pool Road. It has been a real success story—the way Greening Australia have been able to work with those rural lessees.

MS LE COUTEUR: Mr Walker, you mentioned a number of community organisations but, unless I missed it, I did not hear mention of any Indigenous organisations. Are you consulting with any Indigenous organisations? More broadly, are you integrating traditional land management practices into your land management practices?

Mr Walker: I can respond in a number of significant ways to that question. Firstly, I will highlight the reconciliation action plan that the directorate launched last week or thereabouts. It highlights significant involvement of traditional custodians, the Ngunnawal people, in terms of activities and work that we do. That document, plus our Aboriginal and Torres Strait Islander action plan, highlights that we will continue to engage with the traditional custodians.

We have established a traditional custodian caring for country committee, involving Ngunnawal elders, who are guiding us on the management of country. I have reported before on the establishment of that group. That group has now been formed and it is at a point where it is starting to provide us with particular advice around how we care for and engage with country, ranging through a number of different areas from the heritage conservation activities and works through to particular land management functions and any concerns around applications in the control of pest animals and pest plants on country. The community have been explicitly engaged in things like our water resource plan and our fire planning. The advice and guidance of the traditional custodians is really starting to come through in how we work.

I mentioned the scraping of soil to remove seed. That is a good example of where the traditional custodians have been mindful about where we do that, in case there are particular cultural values that would be removed at that same point. People like Wally Bell and a number of others have been quite instrumental in guiding us in how we manage those areas.

We do have a very strong and good relationship with the community in pulling together advice about how to look after country in the traditional custodian context. To be frank, they are highly consistent with good land management practices, from a conservation point of view. The fact is that the traditional custodians have been doing that work for 40,000-plus years. We need to start to learn and pick up some of the techniques and tools. Certainly, the use of fire and the use of appropriate water regimes are now starting to become the norm in how we manage land in the ACT, look after values and promote the values of the traditional custodians.

MS LEE: I want to go to fire management, which is on page 49 of the report, and in particular some of the targets that were not met. Does the failure of us to meet some of those targets put us at greater risk, especially in this time?

Mr Gentleman: I can answer, also as Minister for Police and Emergency Services, that we take a wholesome approach to looking at fire danger in the ACT. We try to meet those targets where possible, but quite often the window for those particular burns for fuel load reduction is not available and that is due to the climatic changes that we are seeing not just in the ACT but right across Australia and the world, in fact.

We are looking at other ways of being able to manage fuel load reduction and manage fire in the bushfire sense as we go forward into the season coming. You have seen, of course, the terrible devastation in New South Wales and Queensland as well. But, having said that, we are aware that those windows are becoming less available and we need to take other advantages.

We are also looking at what is left of the threat level of fires across the ACT if we cannot manage those particular burns in time. Joe Murphy from the Rural Fire Service has advised that particular areas of spot burning may be just as effective, rather than burning the whole-hectare sites that we used to in the past. We have been working with him as well.

Mr Walker: I have a couple of additional comments. Achievement of the 95 per cent target against the bushfire operations plan is a substantially good result in the current situation of—

MS LEE: Where did you get that 95 per cent from?

Mr Walker: That is the information that is in the annual report.

MS LEE: We have got a couple of different targets and—

Mr Walker: Yes. Overall our—

MS LEE: Are you taking the average?

Mr Walker: Yes. That result is a substantially good result, given the climatic conditions and the drought—the dry conditions that we have got.

MS LEE: Granted, it is better than last year, but—

Mr Walker: Take that as a credit to the team, recognising that you can only undertake fuel reduction burning when the prescriptions are within the prescribed limit. We cannot burn when it is too hot, too windy, too cold.

MS LEE: I understand that, and I think everyone does. As the minister acknowledged, there are other strategies that need to be employed. What are some of those, if you can?

Mr Walker: Those other strategies include things like removal of vegetation, making

sure that we have got control lines or access lines to areas. The bushfire operations plan, as our pivotal document, outlines those activities and those actions. The parks and conservation service, as the predominant land manager in the ACT, is all about preparedness. This is trying to ensure that we are in the best position possible, come a fire season.

In doing so, we have done a number of things. We have a regional bushfire management plan and actually we have, for the first time, established some risk-based modelling. That modelling enables us to look at some modelled 2,000-plus ignition points across the ACT and then model the likelihood of a fire starting there and then impacting on life and property. That gives us a very good indication of the future fire scenario. If a fire was to start, what properties would be impacted? That enables us to deploy fuel reduction activities to reduce that risk to those properties.

That is a significant step forward in terms of our ability to use information collected in the field to model that. It is consistent with what Victoria is doing and it now sets the new benchmark for how we assess risk and preparedness in the ACT in relation to fuel management. That is a substantive step forward and we will continue to evolve that over the course of the coming years. That gets done annually and it means we can assess our level of treatment and where we need to apply that.

In a changing climate that becomes more important because our window of opportunity to reduce fuel means that we have got to target it more precisely on: “Where are we going to get the best risk reduction for the effort or the capacity or the window that we have available?”

MS LEE: Just on the little table at the bottom of page 49, you have got the action of upgrading of fire trails and water crossings, a target of 47 kilometres of road construction across five sites. But the target achieved was one kilometre of road construction across one site. There is an asterisk, obviously a note that says that is not an accountability indicator, which makes your stats look good; nevertheless, it is still a target and was not achieved. What is the impact of not achieving it by so much?

Mr Gentleman: That is the construction of the new roads. There is an incredible amount of work that goes into the makings of the current fire trails and access trails throughout the nature parks around the ACT. In many cases you do not need to build a new road because the roads are in existence, but you do need to maintain them of course.

MS LEE: Sure, but you still put a target of 47 and that would have come from somewhere. Presumably it was an informed decision on setting that target. I guess where I am coming from is: is there a concern that it has been not achieved by so much?

Mr Foley: Can I just add to that? We are looking at what was achieved in the year in the financial report. Projects that have been delayed a little, which is the case with many of the upgrades of trails and water crossings, are projects that we are moving ahead with. They just have not been reported. There have been delays, for a range of reasons, in getting the project to the point where it is actually completed. I would just like to be clear that it does not mean that we have not done it or are not intending to

do it. We will have done certain elements of the planning, approval and procurement, but it is not completed. That is really the—

MS LEE: I understand that, but given the current, I suppose, significant concern within the community, is this something that we need to be concerned about or are you, as minister, satisfied that—

Mr Gentleman: I am comfortable with the work that they are doing in regard to maintenance. More than 3,200 kilometres of fire trail maintenance across the ACT has been completed by the directorate. That ensures that they can get fire appliances to the sites where they are needed. In regard to new roads, I will take the experts' advice on that and if they say that they need to do one kilometre but they are doing some others in this period of time then I am okay with that. If my directorate—

MS LEE: Presumably the 47 kilometres was also set by the experts as well. What I am getting at is that there was a reason, obviously, why that target was set and, having not met it by such a huge margin, I suppose I am just giving you the opportunity to reassure the public that that is not going to be something that we need to worry about.

Mr Gentleman: I am very comfortable with the work that they have done at the moment. Can I say that we have had a really good discussion more broadly since the 2003 fires on how to access and manage fires, particularly bushfires, in the ACT. There was a time where we would spend almost all our money on building new roads with big-float road opportunities to ensure that we could get graders into Namadgi National Park.

Instead of that big expenditure, we have expended some of that money on our RAFT, remote area firefighting teams, so that we actually winch them down to the fire from helicopters, a much more economical, sustainable and effective way of fighting bushfires than trying to get a D9 dozer into the top of Namadgi National Park. I am comfortable with the work that not only our team are doing but our Bushfire Council are doing as well.

MS LEE: Just over the page there was public engagement education to raise awareness within the public about bushfire readiness. It says that the target was five education activities. Could you outline those—I do not see any detail of the five—and also how effective they were?

Mr Foley: We have identified some of them there, which includes the publication. The fact is that the bulk are publicly available. We put a lot of effort into communicating when we actually do burn, and you may well have heard communication via radio and web. You would have seen web communications and the like which are aimed at letting the community know that burns are in place, understanding why those burns are occurring, the values we are looking for, and actually making sure the community are aware of what they need to do in the short term in terms of their response to fire—people have sensitivity to smoke, they have allergies, those sorts of things.

In terms of the immediate consultation—the impacts of the fire, the burning program—we put quite a bit of effort into letting the community know what is going

on and how it is being delivered. I know that through the strategic bushfire management planning process and the regional fire management process there has been community engagement in the development of both of those. There is an opportunity there to be speaking in the longer term.

As Ian mentioned earlier, we are working with traditional owners, the Aboriginal and Torres Strait Islander community, to get their feedback on our burning programs. In fact, we are really looking to accelerate and develop our cultural burning program as part of our bushfire operations plan. We are working on a number of fronts, whether it is in the planning, whether it is letting the community know what the broader program is, whether it is letting the community know when we are burning on the day, why we are burning, and making sure that they are aware of where we are burning and to take precautions as individuals.

MS LEE: You mentioned fire prevention activities. From your answer, which was quite detailed, I identified two. I am happy for you to take it on notice, if you can just outline all five, if that works?

Mr Foley: Yes, I will do that.

Mr Walker: Can I make a comment in response to Ms Le Couteur's cat question?

THE CHAIR: Sure.

Mr Walker: There are community groups like the Canberra Street Alliance that can assist with cat trapping and provide support in that space to rehome cats as well. I just wanted to have on the record that there are those groups out there that can provide that support. Firstly, capturing a cat is particularly tricky. It is not an easy activity. The use of community groups like that group would be a valuable resource for this committee to be aware of.

THE CHAIR: Just to save our secretary some work, could I put a question on notice. It is a corporate question. Are all executives and above required to have a performance and development plan? And, if so, how many do not?

Mr Ponton: Short answer: yes, they are required to. In terms of how many do not, I would like to think the answer is none, but I will take that on notice.

THE CHAIR: Thank you, Minister Gentleman and officers. We will now move to heritage and the ACT Heritage Council. Thank you, Mr Walker, for your continued attendance.

MS LE COUTEUR: I have looked at some, at least, of the annual report, and clearly the heritage unit is doing an awful lot of work: 663 pieces of advice on Heritage Act applications and referrals, and you have reduced the backlog from 100 to 80.

Mr Gentleman: Significantly, yes.

MS LE COUTEUR: We have the standard question about the backlog. I am not going to ask that; I just note that it has reduced, which it does not manage to do

always. This is good. But what I am unclear about is whether there is any actual capacity to do strategic work, as distinct from reducing the backlog, commenting on DAs et cetera and all the things that have to be done. Is there any capacity left to do strategic work?

Mr Gentleman: In the unit or in the council?

MS LE COUTEUR: I was thinking about the unit, but my understanding is that the council would have less. If I am wrong about that, tell me, please.

Mr Walker: In terms of our capacity to look at strategic items around heritage and how we respond to those, yes, we do. That is a function of Fiona, me and the team identifying where those strategic issues lie. The council, through the leadership of Fiona, has also had the ability to start to think strategically about where the ACT needs to position itself and how to think about heritage so that we are in front of the nominations, in front of the processes that other parts of government undertake, and so that we have some visibility of potential opportunities that may emerge into the future. The council has explicitly looked at the strategic areas that it would like to invest in over time. The council will start to do that and, with the support of Heritage ACT, we will be supporting the council in that sort of activity.

So, in answer to your question, yes, we do have some, and we will start to explore which of those opportunities and strategic places might be worth considering. That does include things like particular buildings or heritage assets and how we start to re-use them. Under the Burra Charter, re-use is a very powerful tool in terms of conserving properties. You see many examples across the ACT of where buildings have been re-used for a different purpose but still maintain their heritage character and heritage value, and in fact are conserved in perpetuity because of that re-use. That is a very powerful tool that we need to strategically deploy into the future.

Mr Gentleman: A good example of ensuring that they do this sort of strategic work is the amendments to the Heritage Act which were done in October this year. That is a key part of the strategic work that they do.

MS LE COUTEUR: Good. Have you got any resources to look at whether we are actually protecting the things that the community cares about? I say that partly in the context that I am aware of a number of attempted, at any rate, heritage nominations which have been principally done to stop a DA which was felt to be inappropriate. We have a lot of nominations, but do we think we are concentrating on what the community as a whole cares about?

Mr Walker: Any person can nominate a heritage value, so—

MS LE COUTEUR: I am aware of that, yes.

Mr Walker: in essence the nomination process is a reflection of what the community value and consider from a heritage perspective. That very process is designed to enable nominations from the broad cross-remit of community across the ACT.

MS LE COUTEUR: I am aware of that. I am more saying that I believe there are

some things that are heritage listed in the ACT which people care about more than others. Maybe a good example, because it is current, would be the Sydney and Melbourne buildings. I understand the level of concern is such that we are contemplating individual legislative action to ensure that things go better for those buildings. They are clearly heritage listings that a lot of people care about. There are other heritage listings or nominations where there may not be quite the same level of community support. I am wondering whether you have the resources to look at the more general question of what the people in Canberra care about from a heritage point of view, rather than relying entirely on individual nominations, because I suspect that the things that are nominated are not all of equal importance to the inhabitants of Canberra.

Mr Walker: We certainly have the resources. Our resources have been focused on working through the nomination process and those sorts of things. I guess it is unclear to us if there is any difference between what is being nominated and what the broader community are seeing around other heritage assets. We are not seeing that difference from an ACT heritage perspective.

MS LE COUTEUR: Okay. You mentioned briefly re-use and how this is potentially very good in terms of maintaining heritage assets. More generally, have you the time to consider whether heritage assets in fact are being maintained?

Ms Moore: The statistic that you referred to at the beginning is an accurate reflection of that: 663 applications for works to our heritage properties, of which 60 per cent were to built properties. That is a strategic way to ensure appropriate management and conservation of these buildings and changes, potentially, to their use or changes to their fabric. Applications are a strategic approach to conserving and managing all our heritage assets.

MS LE COUTEUR: Don't the applications only cover if you want to do something different? If a property owner is simply not maintaining, do you have any visibility of that?

Ms Moore: You mean the maintenance?

MS LE COUTEUR: Yes.

Ms Moore: It is not the role of the Heritage Council to go around and control property maintenance on individual properties, unless a lack of maintenance is causing damage to a property.

MS LE COUTEUR: How would you work that out?

Ms Moore: The heritage significance would be impacted.

MS LE COUTEUR: How would you know that there had been a lack of maintenance of a property? How would you get this information? You talked earlier about DAs. Obviously it is not going to be a DA that gives you this information.

Mr Walker: Information is reported to us in a range of ways, either directly to

ACT heritage or through a range of Access Canberra or other information. Maintenance in itself is not heritage—we do not have an ability to control that. So maintenance does not impact on the tangible values of what the property is protected for. However, if that resulted in, in an extreme case, the wall falling down, then that is when the Heritage Act would come into play and we would consider it in that light. But maintenance itself is not a heritage related issue.

MS LE COUTEUR: That is probably a matter of debate, but I appreciate what you are saying in terms of the practical realities of what you are doing. A few years ago I was told that work had started on the heritage strategy, but then it just stopped. What is going on with the heritage strategy? Will it be restarted? I believe that a few years ago the work started on it and then stopped.

Mr Walker: Our focus in recent times has been on trying to progress a number of changes to legislation. The minister has already highlighted that. We have taken steps to introduce some new legislation to improve the management of our heritage assets and their ongoing protection. Given our resources, that work has taken precedence over progressing a strategy. Now that that work is progressed—I will not quite say it is concluded, but it has progressed—we are at a point where, going to your original question about strategy, we can start to look at what our strategic areas and activities are. Certainly, over the course of the last two years, our step up into the changes to legislation has been a predominant focus of our work, along with managing a range of nominations and listing processes.

MS LE COUTEUR: So the answer is that you will be looking to restart it in the not too distant future.

Mr Walker: Correct.

MR PARTON: Minister, I know we have already had brief mention of the backlog. Page 265 shows 88 nominations waiting. Of these, 42 have been on the list since 1999 and earlier. What has been done to resolve those 42 ancient nominations?

Mr Gentleman: When you see nominations, sometimes there are additions to nominations that have to be looked at as well. You might see a nomination for a particular area or a particular site, for example, and a number of years later another nomination could come in in a different way for a particular site. That occurs sometimes with these older nominations. I will ask the directorate to give you the information.

Mr Walker: There are a couple of things. Firstly, no nomination is the same. A nomination might be for a single place or it might be for multiple dwellings or multiple areas. In that context you will have to look at each individual nomination on its own merit. In terms of assessing nominations, each one goes through a process of research, finding out why the property was proposed for nomination and listing that property et cetera. That information then goes to council for its consideration and deliberation.

As you have highlighted, and as Ms Le Couteur highlighted, we have been chipping away at the backlog. We are at the point where a number of the nominations now are

the more complex nominations, where there are multiple interests, and multiple dwellings, for want of a better way to say it, within those. We are progressively working through those. Yes, we acknowledge that there is still some work to be done in completing the 86 remaining listings.

Mr Gentleman: There are 10 new applications, roughly, each year. If you look at the chart, for example, the peak was 320 in 2008; 232 decisions have been made, which brings the list down to 86. With only 10 extra per year, you can see that the line is coming right down.

MR PARTON: Minister, you have spoken publicly in the past of the funding of new staff to deal with the backlog of heritage nominations. That is correct, isn't it? But during estimates you told us that the new staff would only be dealing with development proposals. Of course, development proposals and nominations for heritage registration are different things. I wonder what is actually happening with any new staff allocation.

Mr Gentleman: When we have new staff for the directorate, they generally work on all parts of the directorate. We wanted to get to the DA list as well. But that frees up other people to do work in other areas of the directorate. Fiona will have some more information.

Ms Moore: The minister is correct. The funded position is to assist in the delivery of development application advice on heritage approvals, of which there were 663 last year.

MR PARTON: Is that the ASO6 position?

Ms Moore: Correct. As the council continually makes decisions on the nomination list, and has continually reduced it since 2008, the management of those places has increased. You are seeing a shift from decision-making to an increase in the requirement to provide advice. There are resources required there. The officers doing assessment are often taken offline to work on DAs because of the increase there. Putting in a permanent position, an ASO6, in providing development advice enables those assessment officers to purely focus on the backlog of nominations.

MR PARTON: Minister, my understanding—and please correct me if I am wrong here—is that the funding in part for this position, among others, has come from a levy on builders; is that correct?

Mr Gentleman: Yes. There is a levy, on which we had discussions with the building industry. We asked them whether they would be keen to support extra people in the directorate to ensure a quicker time for DA processing. They said they would.

MR PARTON: Did you also explain to them that part of the money would be siphoned off to deal with old heritage—

Mr Gentleman: No, it does not work that way. It is not siphoned off at all. It remains in the directorate and it allows those officers, as you have seen, to deal in a quicker way with development applications—which will need, of course, heritage advice.

MR MILLIGAN: You mentioned that there are things that go back quite some time. Does the department document what work has been done on each one of those listings, and is that available? Are you legitimately working on each one of those listings as often as you can to try to resolve them or are there some listings that have not been looked at for the last 12 months, two years or three years?

Mr Gentleman: I think the numbers that I provided for you show that they are certainly being worked on. In regard to whether that is able to be provided to you, that would be a matter where privacy would have to be considered. A number of these will be private residences; a number would be Aboriginal sites, I would imagine, that we would not want to disclose.

Ms Moore: Of course, minister, as you are referring to, there are the assessments that are being worked on. What you are able to access are those decisions that have been made, which is evidence of active assessment of the nomination list, and they are all publicly available on the website at ACT heritage register.

Each year the Heritage Council sets priorities for what is now 86 nominations. It sets its priorities each financial year about which ones of that 86 it will focus on. It is unrealistic to work on 86 nominations at any given time, where one nomination might represent a single place and one nomination might represent a whole precinct. The council will set its priorities based on a number of factors, such as development pressures, appeal risks, level of consultation required and thematic gaps on the register. It will identify those places, and that is its focus for that financial year. In each financial year it reviews that priority list.

MR MILLIGAN: There is real potential that there are some listings that have not been looked at for years?

Mr Gentleman: I do not know that that is the case.

Mr Walker: Just to clarify, the council looks at the totality of its listings and assesses its priorities based on a number of factors, including the thematic representation across different themes within the heritage listing process.

MR MILLIGAN: Yes; we understand that.

Mr Walker: At a macro level, every nomination is getting looked at annually to determine whether it can be progressed. The challenge is that we do not know how many new nominations also come in that get added to that process.

Ms Moore: Nor how many decisions may be appealed in that financial year.

THE CHAIR: I have some questions about the provisional registration for Norwood Park. On “your say” it states:

Norwood Park ... has been provisionally registered on the ... Heritage Register for its important role as the primary facility for cremations in the ACT. Mourners can farewell loved ones according to faith or secular requirements. The

crematorium is an excellent example of its type.

I am curious to know whether this description was provided by an individual or group that nominated Norwood, by the Heritage Council or by someone else entirely.

Mr Walker: The key component is that the council makes that determination about how this property is described. That is a function that the council performs. It is informed by people providing that information that has been verified and tested. The facility, the crematorium itself, is what has been put onto the listing. That is a key component in recognising the heritage values of the value of the crematorium, as opposed to how the crematorium operates or its performance as a crematorium.

THE CHAIR: I note that, in the second tab about its attributes, the condolence chapel, the memorial gardens and various other memorials are not a specific part of the heritage significance of the place. How is that determined? How are conclusions reached in that space?

Ms Moore: The council does an independent assessment. The process is that a nomination is made where a community member puts forward what the community thinks—that there is something there; that there is heritage there. The council will do a thorough, independent assessment of that place, which involves all primary and secondary material, site visits, condition assessments and, in the instance of a building, building records to know what was original and what is new. It does a full assessment of that place.

In terms of the specifics of that, I would have to take on notice why they were not included. Potentially, it could be because they might not be original features or they are not contributing to the identified significance of the place—the architectural characteristics of the crematorium and the social significance of changing attitudes to cremation and burial in the ACT.

Mr Walker: I touched on this earlier: an important element of listing this site is that it does not impact on the operations that are occurring there and it has no relevance to that. It also means that, in a future world, if that venue was not a crematorium, those heritage values would stay with the property. That is an important element in terms of re-use of the facility for something else.

THE CHAIR: I am particularly interested in why memorial gardens would not be part of that listing, given, I am pretty sure, families may feel that that should be part of it and given that those memorial gardens are not just plaques and shrubs, that there are actually ashes in those gardens.

Ms Moore: The building has been listed as a significant place, being a crematorium, not a cemetery. That may go some way to answer that question as well. The significance is the building. That is what they are looking at, not necessarily the burial plots as they exist. But I am happy to take that on notice.

THE CHAIR: Yes, if you would not mind. I am obviously very curious, given particularly that the final paragraph on the your say second tab raises some questions for me that the physical fabric that comprises the non-listed features does not need to

be preserved for the purpose of the heritage listing. I understand where you are coming from.

Ms Moore: Let us take it on notice and I will clarify it for you.

THE CHAIR: I appreciate that. I am just curious about whether you have a sense of what community feedback the council received and when the council needs to make a final decision.

Ms Moore: I can answer both those. It has made its final decision. That occurred outside this reporting period, in September this year. It is now a formally registered place on the ACT heritage register.

THE CHAIR: It does not say that on your say. It says that the provisional registration period ended in October.

Ms Moore: Your say is just about public consultation. It is not the notification portal for when a decision has finally been made. There is a different—

THE CHAIR: But I thought the provisional registration was about the consultation.

Ms Moore: It is, and that has closed. Consultation has closed.

Mr Gentleman: Yes, and then the decision to—

Ms Moore: Yes, and then the process is—

THE CHAIR: You said a decision was made in September.

Ms Moore: I will just step you through the process. There is nomination, provisional registration and then registration. Before the council can make a decision on registration it must do public consultation on its provisional registration decision, and that is what appeared on your say. The consultation it received from that were two submissions—one in support, one neutral.

Mr Gentleman: The current decision is listed on the ACT legislation register, heritage decision about registration of Norwood Park, Mitchell, notice 2019 NI2019-610. You can look it up there and you can see that it actually describes all the detail of the reasons for the decision and all the articles in the detail for the decision as well, and it talks particularly about the attributes of the building.

MISS C BURCH: I would like to go to the heritage emergency fund. I understand that \$10,000 was required to be spent from the fund on an event to celebrate the moon landing anniversary. Why was that provided as emergency funding? Surely the anniversary was something that we could have had the foresight to plan for or—

Mr Gentleman: We did plan quite a bit for the heritage festival dealing with the anniversary of the moon landing. As you would remember, the ACT played a significant role in the transmission of the first signals from Armstrong stepping on the moon, but there were some other opportunities that came forward during the rollout of

the festival that we sought funding for. I ask Ms Moore to give you the details.

Ms Moore: I might take on notice what criteria it met, but ultimately in this instance the urgency would have been on timing to meet that date.

MISS C BURCH: If you could take that on notice, that would be appreciated.

Ms Moore: Yes, I can take that on notice.

MISS C BURCH: Similarly, there was \$13,000 spent on an event to celebrate the work of Enrico Taglietti. Why was that also classified as emergency funding?

Ms Moore: I can answer that. That is due to Mr Taglietti's age. He has passed since that grant was awarded.

MISS C BURCH: But there presumably would have been time taken to plan the events. As you say, perhaps it is a timing issue but if we could understand the criteria that it is assessed on. How much of the \$83,000 for heritage projects in the better infrastructure fund was allocated to the Canberra Tracks project?

Ms Moore: Canberra Tracks received \$47,000.

MISS C BURCH: And how much of that was spent on the development of the app and website?

Ms Moore: Can I please take that one on notice?

MISS C BURCH: Okay. I have got a couple of further questions here but I might put those on notice.

MR MILLIGAN: Has there been any progress on the registered Aboriginal organisations that have taken part in any Heritage Council investigations? Has there been any progress on broadening and opening it up to other applicants to join that list of organisations?

Mr Walker: There are four Aboriginal organisations across the ACT. Three of those are represented through the Ngunnawal community. And that has been our focus of engagement through the RAO process and their assessment of heritage values. That has been our focus, to work with those four groups. As I said, three of those are Ngunnawal community representatives on those RAOs

MR MILLIGAN: You have not considered opening up and offering opportunities for other Aboriginal-registered representative organisations to join that list? I know quite a few have approached the government and sought—

Mr Walker: In stepping that through, it is a system and a process that we need to work through. Understanding and looking at other jurisdictions and how they have done that is actually quite a significant step to move into that space to actually start to broaden and open up those opportunities. That is not to say that we have not looked. We have started to look at that. We have looked at what Victoria has done. We have

looked at what New South Wales has done.

We are starting to explore how we bring more representative Aboriginal organisations into this space. And this community really needs to understand that as soon as we move into that space it actually broadens not just who speaks for country but also how the roles of those groups start to interact and intersect with the heritage legislation requirements as well. It is a big step to move into broadening the RAO groups.

Mr Gentleman: It may well be that we would need to amend the act for particular groups.

MR MILLIGAN: Any gaps that you might see where another group might be able to step into and provide any—

Mr Gentleman: There is certainly knowledge. There are other groups that have different knowledge from their time and it is passed down through the generations. However, it was a number of years ago that the government took a position to recognise Ngunnawal people as the traditional custodians of the land. To step away from that would be, I think, a challenge for all of us as a community. That is why we need to really carefully balance what any other RAOs would be eligible. But this conversation does not stop here. We are still talking with Minister Stephen-Smith about whether further RAOs could be engaged. But it is a delicate conversation.

MR MILLIGAN: I guess no-one would be suggesting that you would bring in anyone else that is not from the Ngunnawal country—

Mr Gentleman: There are others interested.

MR MILLIGAN: When could we expect a decision from the government on whether or not they will open up this process or broaden it?

Mr Gentleman: I think it will be some time. But let me take that on notice. I will talk to Minister Stephen-Smith about the position that she is up to at the moment and we will come back to you.

MR PARTON: The better infrastructure fund: how much of the fund's \$83,000 for heritage projects was allocated to Canberra track projects?

THE CHAIR: We have just talked about that.

MR PARTON: I must have been asleep, sorry. When will the cultural heritage management system be completed? It is my understanding that it was developed last year.

Mr Walker: The cultural heritage management system is an important component. I will explain why it is important. Land managers and owners of heritage assets are required to have appropriate heritage management tools and processes in place. The parks and conservation service, which manages 70 per cent of the ACT, therefore has looked at and is working with heritage to develop our cultural heritage management system to ensure that heritage assets, heritage values, in the parks and reserves estate

are effectively managed and protected in perpetuity.

That is a long introduction but it goes to the heart of the scale of this work. When you think about Aboriginal cultural values and non-Aboriginal cultural values, the raft of heritage assets in the parks and reserves system means that we need a framework and an approach that can look at where heritage values are and how they are protected in perpetuity so that we do not end up inadvertently—for a simple example—burning them or doing other activities that may impact on them. That is why that piece of work is fundamentally important. We are in the process of doing that. A couple of the key steps are about (1) the framework and the approach, and (2) inventory and what we have where. They are the steps that have occurred to date. We will look to be finalising the framework and the plan into next year.

MR PARTON: You say, “We look to be.” Can you explain to me exactly who is undertaking the development of that system?

Mr Walker: It is a joint relationship between heritage, who are the providers of the resource and ultimately the regulator associated with looking after heritage values in the ACT, and the parks and conservation service, who are the land managers, who also have an obligation to consider and look after the heritage values in the ACT.

MR PARTON: I am assuming that the directorate has partnered with Aboriginal heritage groups in creating that system.

Mr Walker: Correct. We have partnered not only with Aboriginal groups but with a range of other parties as well to understand where the heritage values are and their place in the landscape. So there are multiple groups that we have been involved in. We are using and working with a couple of supports and contractors to help us do that, and we are feeding into that inventory work around where some of our cultural heritage values are.

MR PARTON: What is the bottom-line cost of the development and implementation of the system?

Mr Walker: We will work through that. I cannot give you a figure at this point in time because it will depend on what comes out of the work that we are doing at this point to inform the framework and the system going forward. Importantly, though, it also enables us to look at that type of approach, that system and that framework for other parts of government and to be able to deploy similar opportunities and similar tools to other parts of government where they also have some responsibilities associated with it. So we are trying to build an approach that enables other directorates—for example, transport and city services—to utilise those sorts of tools, those frameworks and that approach.

MR PARTON: This sounds wonderful in here and it looks great on paper, but how is a system like this supposed to protect, for argument’s sake, Aboriginality significant trees when this year there have been cases where trees have been removed?

Mr Walker: That is the exact reason why these sorts of tools and systems have been put in place: to provide benefits and important tools, frameworks and approaches to

protect those values. All heritage values that are listed are on an existing database and are available for people to interrogate and look at. There are some sensitivities about particular ones but they are available. For people undertaking development activities or other works, that information already exists. The work that we are talking about here is going beyond that and applying it in a much broader landscape setting about “How do we manage that? What are the policies and procedures that land managers would need to undertake to protect the values across the ACT?”

MR PARTON: Can we talk more broadly about the heritage festival? I am confused, because I see two numbers. Did the heritage festival get a grant of \$73,000 or \$98,000 in 2018-19?

Ms Moore: It was \$73,000.

MR PARTON: How many flagship events were there during this year’s festival?

Ms Moore: There were four flagship events, if you would like to categorise them as that. I assume by flagship you mean significant attendees at that event. The four were the Canberra Modern festival, which had 950 attendees; the National Trust events, which had 800; the geocaching event, with over 700—

Mr Gentleman: It felt like a thousand.

THE CHAIR: Seven hundred?

Ms Moore: Over 700, yes. It is really popular; get on it.

THE CHAIR: It is very popular but that is still an extraordinary number.

Ms Moore: Yes. It was a national geocaching event. Geocachers from all over the country converged here and they located their geocaches at our Canberra track signs all around the territory, so we had lots of kids out there getting to know our story and how cool our heritage is. The other large event was PCS. They ran many events and they had over 530.

Mr Gentleman: Including the American ambassador.

MR PARTON: How many flagship events were there at last year’s festival?

Ms Moore: I will need to take that on notice.

MR PARTON: Was there a survey this year which measured respondents on whether they were satisfied or otherwise?

Ms Moore: Yes, there is a survey every year on the festival. We had 93.3 per cent identifying as either very satisfied or satisfied with the event they attended.

MR PARTON: How is that survey conducted?

Ms Moore: The survey is conducted twofold—through event organisers and directly

through us—and given to people that attend an event. They can do an online survey or they can do a physical survey. We are at the mercy of them completing the survey, so it does not capture everyone, but it captures an indicative size.

THE CHAIR: How many people completed the survey?

Ms Moore: I will take that on notice, rather than flip through my pages.

THE CHAIR: I am curious to know the breakdown between hard copy and—

Ms Moore: It is usually between 100 and 200. That is what we would anticipate each year.

Mr Walker: The significance of the heritage festival cannot be understated. It has continued to grow each year. In the reporting period it is the largest heritage festival that we have had. Coinciding with the moon landing gave it great exposure. Importantly, the survey results that Fiona has alluded to show some new people and new demographics in that space.

Ms Moore: In building on that, we know that we reached 1.8 million people with our digital campaign this year. That is a fantastic result.

Mr Walker: It highlights that, with heritage, typically there is a demographic of older, more mature people. We are now starting to reach into a demographic of younger people engaging, with an understanding that heritage is not just about old stuff; it is about the stories that connect with people. It connects with grandparents and with parents. That story is a really important element of the heritage festival, and it is an important element of the nature of what the heritage team does. Yes, we have a fundamental regulatory role. The flip side is that this is about education; this is about storytelling; this is about a narrative that gets people excited to be considering heritage. The festival this year really highlighted that we are bringing in, as I said, this new demographic, and they are really starting to embrace what heritage means and the connection to each other.

Ms Moore: I can clarify, so that there is one less question on notice, that 290 people completed the survey.

THE CHAIR: Is that the most completions you have ever had?

Ms Moore: That might have to be a question on notice.

THE CHAIR: Sorry; only if it is easy.

Mr Walker: You may also be familiar with some of the images that were developed for this heritage festival. It was a real testament to the team in terms of bringing in some expertise to develop images that not only resonated with Canberrans but also tied back to the heritage festival around space. That highlights how we can use and interpret heritage in different ways, from the Telstra tower as a rocket ship to the Shine Dome as a UFO. There is a whole range of ways that we can start to reposition heritage as a cool, funky space as opposed to an old, stale space.

THE CHAIR: Are you going to make a submission to the current consultation on the future use of Telstra tower? Maybe it could be a rocket.

Mr Walker: Yes, certainly.

Mr Gentleman: I can give you some physics on what you would need to get it into orbit, if you like.

THE CHAIR: We might give you an early mark. Thank you very much, everybody, for appearing. A proof transcript, as usual, will be sent to you for comment. If you have taken any questions on notice, the committee secretary will be in touch. We will now suspend the hearing for lunch and resume at 2 pm with Minister Rattenbury.

Hearing suspended from 12.47 to 2 pm.

Appearances:

Rattenbury, Mr Shane, Minister for Climate Change and Sustainability, Minister for Corrections and Justice Health, Minister for Justice, Consumer Affairs and Road Safety and Minister for Mental Health

Environment, Planning and Sustainable Development Directorate

Ponton, Mr Ben, Director-General

Rutledge, Mr Geoffrey, Deputy Director-General, Sustainability and the Built Environment

McGlynn, Mr Gene, Executive Group Manager, Climate Change and Sustainability

Harding, Mr Daniel, Senior Director, Energy Markets and Renewables

Temby, Mr Hugo, Senior Policy Officer, Energy Projects

Malouf, Ms Ros, Senior Director, Sustainability Programs

Harmer, Ms Antonia, Director, Energy Efficiency Improvement Scheme

THE CHAIR: Welcome back to the first day of hearings for this committee into the annual and financial reports for 2018-19. This afternoon we will hear from the Minister for Climate Change and Sustainability, Mr Shane Rattenbury MLA, and his officers, regarding the Climate Change Council, climate change and sustainability, and the energy efficiency (cost of living) improvement administrator. We will also hear from the Office of the Commissioner for Sustainability and the Environment.

I ask witnesses whether they have read and understood the pink privilege statement that is in front of them on the table.

Mr Ponton: Yes.

Mr Rattenbury: Yes, thank you.

THE CHAIR: I think everybody is aware of the requirements of five business days regarding submitting further questions as well as responding to questions, once the uncorrected proof transcript has become available and once the questions are submitted.

I now welcome the Minister for Climate Change and Sustainability, Mr Rattenbury, and his officers. Minister, do you have an opening statement?

Mr Rattenbury: No, thank you, chair.

THE CHAIR: In terms of the ACT's renewable energy target, and now being powered by 100 per cent renewable energy sources, I understand that the government initially estimated that achieving this would cost about \$5.50 per week per household. The feedback is that people are pretty happy to pay a little bit to do the right thing. But in a recent article Associate Professor Bruce Mountain of the Victoria Energy Policy Centre said he would be unsurprised if customers in the ACT were currently paying substantially less than \$5.50 because market power prices are so high. Are you able to let us know what is the current cost to households, per household, in achieving this target?

Mr Rattenbury: Yes, certainly. Since that initial modelling was done when the scheme was first launched for 100 per cent renewable electricity, we have made progress in bringing that cost down. The most recent estimates are that, even with the additional auction we have now released, households will pay a maximum of \$4.90 under the scheme.

I will come to the actual cost in a moment. What I can tell you is that the ACT continues to have amongst the cheapest electricity prices in Australia, even with the 100 per cent renewable electricity target. It has proven to be an effective scheme, and certainly the contract for difference model that is part of the scheme has been an important part of that. Where electricity prices are high, there have been periods when the community, via the government action, has received refunds out of the process. Overall there is still a cost to the scheme, but it has been less than anticipated. In terms of the current actual cost, I will ask Mr Harding to give you that number.

Mr Harding: The way that our contracts for difference for the large-scale electricity purchases work is that they are based around a market price. Electricity is sold every five minutes in the wholesale market, so prices fluctuate, as per any commodity.

The way the territory's contracts are structured is that a FiT price has been agreed. It is essentially a guarantee to the generator—it makes their project bankable—that they will take home a certain fixed amount of revenue for each unit of electricity sold. It means that if the wholesale market price at the time is higher than our agreed price then the generators pay back to consumers. If the price in the market in that trading interval is less than our agreed price then we pay a top-up payment.

At the end of the year, the network business, which has relationships with each of our generators, nets out of the total overs and unders to a net total system cost. As the minister stated, the estimated initial cost back in 2012, when the scheme initially kicked off, was around \$5.50 per household per week, revised back some years later to \$4.90.

With our estimates now, given where wholesale electricity prices are going, in recent years, for a range of factors, wholesale electricity prices have been much higher than were originally forecast, meaning that the territory, on average, has to pay less in top-up payments, meaning that the additional cost for those contracts is smaller than we initially expected. There are estimates that because wholesale electricity prices fluctuate quite a bit, it is between \$2 and \$3 in the pass-through cost, the additional cost. It is significantly lower in aggregate terms than was initially forecast back in 2012.

Another interesting piece of analysis, in addition to that of Dr Mountain and his group in Victoria, was from the Melbourne Energy Institute, which is based at the University of Melbourne. They estimated that for the last financial year ACT consumers are likely paying less than a dollar per household per week, given the wholesale electricity prices. I think there is a strong level of confidence that ACT consumers are paying significantly less than was initially forecast for those additional renewable electricity purchases which are contributing to the 100 per cent renewable electricity commitment.

THE CHAIR: Thank you; that was a very detailed and very helpful answer. I appreciate that the government recently announced a new tender for another reverse auction to increase our renewable energy sources. Presumably, we are growing; also we are trying to get more things to convert to renewable electricity, like our vehicles. I also understand that, as part of that, the successful tenderer needs to build a battery in the ACT. Am I right that the battery would need to be big enough to power around 30,000 households for two hours?

Mr Rattenbury: 25,000 households for two hours, yes.

THE CHAIR: Why isn't it bigger? Why can't it be bigger? Why is that what we have gone for? I do not want to know why it is not smaller, but how big can we go for, and is this where the technology is at the moment for us to get bang for our buck?

Mr Rutledge: There is no limit to how big a battery can be, but what we need is one that is fit for purpose in the territory. If you compare it to the big battery in South Australia, it is about a quarter of the size. But we are in a very different energy market to that.

What the South Australians have learned is that, at that big scale, when you have wind farms and high penetration of renewable energy, it has proven to be very good for frequency modulation, and it has made a lot of money. They have not spent much money at all on that big battery. As Mr Harding was saying, because of the volatility of the electricity market, you can make a lot of money by short, sharp bursts of energy.

In the ACT the second electricity supply is coming through west Belconnen, so we are trying to secure our energy supply locally. There are some spots in the network that could benefit from batteries, where there is high penetration of renewables, say in Denman Prospect or new suburbs, where, with renewables during the day, there is a lot of energy produced but not a lot of energy used. It would be quite profitable to recharge a battery in those environments. There are parts where the alternative might be network augmentation rather than the security of having a battery.

In the tender documents that go out, it is not necessarily one big battery. It might actually be four smaller batteries accommodating that across the network. The tenderers will come back; access to land will probably be the big determinant about how they do it. It is about where they think it fits in best across the network. It will be a combination of those.

Could we go larger? Yes, we could, but it would just be, I suppose, over-delivery for what we need, as we have a very secure energy supply otherwise. The other benefit that we see in going with a smaller battery within our network is teaming up with, as we have done with the virtual power plant, researchers and making available that data about how the batteries operate during peak production. In the unlikely event that we have a power failure—a two-hour power failure for a small number of houses is a fairly rare event in the territory—it is about how we would respond to that. It is about learning how the network responds, as much as the capacity of the battery.

THE CHAIR: Minister, you mentioned before our having some of the cheapest

electricity in the nation. What is the source for that?

Mr Rattenbury: I will check that source for you in a moment. Just on the issue of the large battery, the other thing in the tender documents will be that, if somebody wants to build a bigger battery, documents will not restrict them from doing that. We have put in place a minimum requirement.

As Mr Rutledge mentioned, the battery in South Australia has been quite profitable because of the ancillary services that it provides. It might get somebody that wants to build a 100-megawatt battery and we only need some portion of it and they will just make money out of the rest of it. We are not stopping them doing that if they decide that is a good business case.

THE CHAIR: Mr Rutledge, you said that we have got very secure energy sources. One of the criticisms often bandied about renewal energy is that it is not secure. Are we confident that it is?

Mr Rutledge: The ACT is in the national energy market. That is a combination of all the various generators. The same answer to that question and why our costs are low is that we have got a modern network and we are a compact city. We are not running lines to Broken Hill. Our customers are paying only a small proportion of the lines that get us into the national energy market. The benefit for us is the distribution cost for a compact city. That is the key benefit in that.

We are secure because we are drawing on interconnectors through the whole of the national energy market. What this will do is, again, provide some local utility and local security for those. There will be outages that are caused by storm or wind or really locational outages. The security that we have in the NEM is quite strong. Part of the benefits of being the national capital is that we have got a lot of national institutions here and important buildings in the triangle and elsewhere. We have delivered a very secure energy supply.

Mr Harding: I can add a few further statistics to that if it is helpful to the committee. The Australian Energy Regulator, the national regulator, publishes its annual state of the energy market report. The report published earlier this year had two key statistics on distribution network reliability. Particularly they are the average frequency of outages. How many outages on average do jurisdictions face each year? And then the average duration of an outage. As you could imagine, they would be quite important statistics.

Across the national electricity market, as Mr Rutledge referenced, the average frequency of outages is about 1½ outages unplanned per customer, per year. In the ACT it is fewer than one outage. Then in terms of the duration for the average electricity customer across the national electricity market—Queensland, New South Wales, Victoria, South Australia, the ACT and Tasmania are all interconnected—the average duration of unplanned outage is about 250 minutes per year that customers face no electricity supply. In the ACT it is fewer than 100 minutes per year. As you can see from both those metrics, the ACT's electricity network is very reliable, among the most reliable in the country.

THE CHAIR: For a household if electricity goes out, your experience is that it is once a year or less and, if it does, on average, about an hour and a half?

Mr Harding: Yes.

THE CHAIR: Are we able to find that source?

Mr Harding: Yes. That was the Australian Energy Regulator state of the energy market report.

In terms of your other question about where the territory is in terms of its pricing, I can give you two sources. The Australian Energy Market Commission, which is the national independent rule-maker for the electricity market, is tasked each year by COAG energy ministers under the standing terms of reference to review retail electricity prices and trends. They have published that report, I think, for about 11 years now. And that report identifies that the territory has the second lowest retail electricity prices in Australia, behind Tasmania.

Then a second source, as per the ACT's own Independent Competition and Regulatory Commission in its annual price recalibration report from June this year, identifies similarly again that the ACT has among the lowest standing offer retail electricity prices in the country as compared to other retail offers in other jurisdictions.

MS LEE: The reverse auction to meet the—

Mr Rattenbury: The new one?

MS LEE: Yes, the new one. When do we expect that process to be completed?

Mr Rattenbury: Within the next couple of days. The plan is to launch it on 15 November. I have just signed off all the offer documents, if you like, the rules and all that. It goes out on 15 November. Proponents will have until late January, early February to provide their bids back to the ACT government.

MS LEE: Have you determined whether it is solar or wind or any other—

Mr Rattenbury: That is open. The documents detail and give you a number of types of renewable electricity. We have set the amount. It is 200 megawatts wind equivalent. What that means is that, if you are wanting to get 200 megawatts of wind, you need 250 megawatts of solar, because there is a different rating. It is 200 megawatts wind equivalent.

MS LEE: Obviously, given that the landscape has changed in this arena since 2012, when it first began, are we confident that we are going to be able to get a fairly good deal in this regard?

Mr Rattenbury: Yes, I am very confident. We have made a number of changes since those early auctions. For example, the contract period in the first ones were offered for 20 years because that was really seen as necessary to provide the guarantees. This time we are asking for bids for either 10 or 14 years, and that is based on industry

feedback of what they think they need to get a secure deal.

In terms of the rating criteria, people who seek government treasury guarantees will be rated lower because we do not think the risk is there that used to be there for generators. Price wise, we expect to get a lower price than at previous auctions, based on all the intelligence we are getting out of the market.

MS LEE: Has there been any modelling done, with all this new information and the different landscape, on the projected increase in cost to households? Has that work been done or looked at?

Mr Rattenbury: Yes, we have. As we touched on in earlier discussion, we are well below the cost that was originally modelled and our estimate—

MS LEE: And is that going forward as well, the estimate?

Mr Rattenbury: Yes. The original estimate was \$5.50 a week. Our current estimate is a maximum of \$4.90 a week and we believe, even with the additional auction being added in, that it will not go over the \$4.90 price.

MS LEE: And just to confirm, it is per household, is it not, that price, not per person?

Mr Rattenbury: Yes, per household per week and it is for an average household. There will be variances in that.

MISS C BURCH: The climate change strategy report: what changes have been made to the tree species list for Canberra?

Mr Rattenbury: This is a report that was done for the ACT government by the ANU Fenner School. They were asked to examine what species would be appropriate going forward. This is a partnership between our directorate and city services, because they obviously do a lot of the plantings. They have made some adjustments. Some trees have gone up the scale and some have gone down a bit.

They used a whole bunch of criteria, which included suitability to a hotter, drier climate. To put it colloquially, we need to think that we will have a climate more like Dubbo or Adelaide by the middle of the century than the current Canberra climate. That is the sort of research they have done. Also they have taken into account things like allergy impact, weed status and issues around fire hazard, as they identify in the report. The asset protection zone is a particular consideration, and some species will be considered inappropriate for use in the asset zone.

There are a whole lot of other factors as well: how much space they need for their roots, how big the canopy gets and so on. They go through and, for example, if a tree is to be planted in a narrow laneway, the width of the canopy will be a consideration. There are a whole series of factors. Then they have rated the most suitable species and the least suitable species.

MISS C BURCH: How will this affect the future planting of trees around our city?

Mr Rattenbury: This list is used by Transport Canberra and City Services in particular and also by the Suburban Land Agency and others. When they are doing new street plantings along a roadway or along a cyclepath or when they are doing plantings in a park and these kinds of things, they will make a selection based on the various features. The report is quite detailed. It uses what they call a multi-criteria matrix. It says, “Depending on the circumstances where you want to plant the tree, these will be more or less suitable,” and it goes into some detail on the various characteristics. So it is not: “You must plant this tree”; it is: “In these circumstances, these are the most suitable species.”

MS LEE: On the trees, the government recently made an announcement about planting 17,000.

Mr Rattenbury: Yes; that was in this year’s budget.

MS LEE: There has been a call to the community asking, “Where do you want to see them planted?” How do you go about looking at the balance between where the people want the trees, compared to where the trees are needed to address all the issues that you have just addressed?

Mr Rattenbury: That process is being run by city services, through Minister Steel, so I am not entirely across the details of those criteria, but it will be a combination. People request trees in areas. We have areas where our street trees have died and have had to be removed, so there will be replacement going on there. There will be identification of gaps. One of the things my directorate commissioned was a report by the CSIRO that looked at the urban heat island effect across the city. That told us a lot about areas that are particularly badly affected. They will be priority areas. So it will be a combination of community requests and areas that are identified as having gaps at the moment.

There are also some places where people do not want trees. I certainly will never forget that in my time as Minister for City Services, when we wanted to do a planting in a suburb that had probably not been as well planted as it should have been when it was first developed, many residents came along and said, “We don’t want a tree.” They actually said, “If you plant a tree on my nature strip, I will rip it out.”

THE CHAIR: What suburb was that?

Mr Rattenbury: That was Dunlop, in your electorate. I was surprised by that, but—

THE CHAIR: I have zero comment.

Mr Rattenbury: people have their motivations. There is no point in trying to put a tree in, frankly, where someone says they are going to rip it out.

THE CHAIR: There is a lovely wetland in Dunlop.

Mr Rattenbury: Plenty of people in Dunlop wanted the trees, but in the community there are different views. Some people do not want them because they want to be able to park their car there or they do not want to have to clean up leaves, or the various

motivations that people have.

MS LEE: There has been a concern about the reduction of canopy over the last few years. Will the 17,000 trees being planted address that issue?

Mr Rattenbury: It will in the short term. Ms Le Couteur asked a question on notice that showed that we are at the moment suffering a net loss of about 3,000 trees a year across the territory. A lot of that is coming from trees reaching the end of their natural life. When you talk to some of the tree experts around town, they talk about the fact that we are coming to this unfortunate perfect storm, where what might be termed the western plantings of the 1920s and 30s and the big plantings through the 60s, 70s and 80s—both of those groups of trees are tending to come to the end of their natural lives at the same time. A significant number of trees will die over the next couple of decades, so we have a big job ahead of us. But that 17,000 trees will certainly make an impact over the next few years of the budget cycle, and we will need to continue to plant more, particularly if we want to get to our 30 per cent canopy target.

MS LEE: The 17,000 trees was over a period of what?

Mr Rattenbury: It was the four-year budget cycle.

MR MILLIGAN: How many households and businesses have signed up to the next generation energy storage program?

Mr Rattenbury: The battery storage?

MR MILLIGAN: Yes.

Mr Rattenbury: The last I heard, I think, we were just over 1,000 batteries, but I will just get the details.

MR MILLIGAN: While you are getting the details, how would the data that is collected from the battery storage be used in further research?

Mr Rutledge: I will start on the second part of the question. The actual number—we will get that for you. With the next generation battery program, there are a number of batteries available in the market. There are a number of retailers. The ACT government subsidises those batteries to probably about a third of the cost. In each of the rounds where we have gone out for the next generation, the price has come down as the cost curve of batteries comes down.

For those who desperately want a Tesla Powerwall, Tesla have different rules around it and they do not let their data go anywhere, because they are Tesla. For those who choose one of the more generic brands, if they have signed up with Reposit, which is a local data and energy ICT firm, we collect that data and then the Energy Change Institute at the ANU are really the biggest user of that.

Again, what we are coming back to is similar to what we need to study with the bigger battery when it comes online in the coming years: how do we get both frequency modulation and network distribution right at the very local level? Through,

again, ACT government support, the ANU are opening a lab to do this at a micro scale, and then we are doing the microsimulation with the data that is coming from what we are seeing through the next gen program. What we anticipate at the moment is research.

First of all, Reposit have done very well out of it. They have created a wonderful business model out of monitoring the data. It allows people to decide in real time whether they want to purchase energy from the grid, live off their battery or vice versa. You can do that automatically or on your phone. You can let the software do it or you can do it on your phone.

If you are paying time-of-use charging, largely, energy is fairly cheap during the day; you have got solar on your roof, so that is fine. Between the hours of 4 pm and 7 pm, energy is pretty expensive, so that is a good time to live off your battery. Then overnight, when energy is cheap again, is a good time to restore your battery. The software does all that for you. That information is collected and we make it publicly available, and researchers can do that. Some of the people we have spoken to have taken this on.

There are a couple of benefits: (1) instantly they become very energy literate. They become very aware of their time of use and when they are using their appliances. Some become very evangelical as they show you their app, to show when they are charging their Tesla and when they are running their washing machine and dryer. They can tell you, “We made \$1.28 today—isn’t that great? We sold energy back to the grid because the pricing was right.”

All of that happens at the consumer level, but we see a number of ancillary services coming from this. We see more rooftop solar penetration. Ultimately, I imagine very shortly, we will see almost suburb-scale microgrids or street-level batteries. A combination of all of that is where that data goes. Mr Temby, how many have we got out in the field?

Mr Temby: I have read and understood the privilege statement. We have supported around 1,300 systems under the next gen program to date. That equates to around 6 megawatts of capacity.

MS LE COUTEUR: Can I ask about the research you are doing? Is it more than research into the battery but research into useful scales for PVs? There is the perennial question of whether we would be better off putting them all on top of shopping centres, for instance, or does it make sense for us all to do our own?

Mr Rutledge: We are not doing the research. We are making the data available—

MS LE COUTEUR: For others.

Mr Rutledge: For others. I think the economists in the room would say that absolutely at scale will always be the most efficient way to deliver but I think the spin-off benefits of getting energy-literate consumers and people feeling in control of their energy use and energy production will continue to see consumers making that individual decision to invest in rooftop solar and battery. When we see EVs come in, I

think that will be another level where consumers get passionate about energy.

MR MILLIGAN: Is the ANU the only group that is looking at this data?

Mr Rutledge: I should say this virtual power plant is, we believe, the biggest in Australia and perhaps the biggest in the Southern Hemisphere. The data that we are releasing as a result of the use of Reposit software is certainly the biggest data set. It is publicly available for any researcher who wants to look at it. As it turns out, part of our competitive advantage here in the ACT is that the ANU Energy Change Institute are probably the leading—some would say world leading but certainly Australian leading—researchers. It makes sense that they are the ones who are leading it. It is not for just the ANU. It is just that they are the ones that have seen the opportunity and really embraced it.

MR MILLIGAN: Is it \$25 million that has been allocated for this program? Is that correct?

Mr Rutledge: Yes.

MR MILLIGAN: How much of that has been used so far?

Mr Rutledge: I will take the details of that on notice. We will either get back to you during the hearing or I will take it on notice. That figure is not to hand straightaway.

MR MILLIGAN: You mentioned the 1,300 uptake. Is that just residential or is that residential and business?

Mr Temby: Yes, that is a combination of residential and business. But most of the assistance to date has been residential.

MS LEE: Have you got the split?

Mr Temby: We could get that. It would not be hard to find.

THE CHAIR: Are there particular areas in Canberra that are taking it up more than others, more regions?

Mr Temby: No. There is a reasonable split across the city, actually. There is no discernible pattern.

Mr Rutledge: Kambah always wins but that is because the suburb is four times bigger than every other suburb when you do the suburban split. But no.

MS LEE: I want to go back to the climate change strategy, if I may. In talking about key priorities here, the first one, under energy, buildings and urban development, is: to improve energy performance and climate change resilience requirements for new buildings. Can you expand on what you mean by that? What does that mean?

Mr McGlynn: What that is about is that there have been processes for years, through the national construction code, about how you build houses to be more energy

efficient, structurally sound and those sorts of things. Increasingly we realise that it is not enough for the house to just survive and reduce energy but it has to be a livable place. As the climate changes, there will be issues around what sort of building is suitable in a changing climate. It is not just that the temperatures inside are comfortable and it is bushfire resistant and it is resistant to storms and those sorts of things.

What that work is about is similar to the tree work we looked at. In future what sorts of buildings are going to be appropriate for the climate that we live in so that they are resilient to the climate as it changes over time? It is really about how you are building some of those resilience issues into buildings, not just the energy requirements.

MS LEE: Have you got any practical examples of one of those initiatives? “Last year we introduced measures ensuring that new buildings have X”?

Mr McGlynn: We have not. There are two issues. There is the building itself and making sure that it has the requirements that it needs. And then there is the issue of things like vegetation around the building. The issue of living infrastructure again is part of that same sort of story. How do you provide the right environment around the building to protect it from shade, to keep it warm in winter and cool in summer, and those sorts of things? But at this stage this work is fairly early in the stages of looking at what will the climate look like in the future and, therefore, what those buildings need to look like. And it is something that we would expect at some stage from all the considerations under things like the national construction code. But it is not quite there yet.

MS LEE: In terms of reducing emissions, transport has been identified as probably the next big thing that we need to look into. The key priorities outline a couple of dot points, motherhood statements, if you like. But if you could provide a bit more detail on a practical level of what types of initiatives this means or that the government is considering?

Mr Rattenbury: Yes, certainly. You are right that transport has been identified as probably our biggest challenge. At least 60 per cent of our emissions in 2020 will be from transport. That is because, once the electricity emissions come out, transport goes up. And it has also been growing.

There is not a single solution when it comes to transport. To put it in broad terms, we will need more people walking and cycling for some journeys. We will need more public transport and public transport usage. We will need to decarbonise our fleet. That is probably a lot of electrification. That is why you see initiatives in there like moving to a zero emission bus fleet and, obviously, having zero emission personal vehicles and trying to get the uptake of that as rapidly as possible.

Across the board there will be a series of transport initiatives we will need to take. But they are the broad categories. Within those there will be more detail.

MS LEE: Is it too early at this stage to have done any real analysis about the impact of light rail on emissions? Is that too early at this stage?

Mr Rattenbury: I am not aware of any specific analysis being done. There was analysis done by the University of Canberra, out of CURF, prior to light rail, I think, in which they did some analysis of the impact they expected. That was done by Barbara Norman and Will Steffen, if I remember rightly. But I am not aware that anybody has done an analysis since light rail has actually started operating.

MS LEE: Just for the record, what was that? Do you know?

Mr Rattenbury: I know they said it was worth doing. I cannot remember the details, I am afraid. They did publish a short paper on it.

MS LEE: Waste avoidance and management was one of the other key priorities. In regard to diverting additional organic waste from landfill, what is the government doing in that space?

Mr Rattenbury: The key issue there of course is that the decomposition of organic material results in a release of methane. Methane is a greenhouse gas that is very potent, I think 94 or 96 times the potency of CO₂ emissions. A small amount has a strong effect. And the key thing is to make sure that we do not just let our green products rot in landfill and release that methane.

Already the government does methane capture at the tip sites. At both Belconnen and Mugga Lane there are methane capture programs which are used to capture the gas and then burn it. But the key initiatives in the strategy are to move to a full household FOGO, food organics and garden organics, collection by 2023 and then to ensure the proper processing of those materials. It is not just the random release of methane.

MS LE COUTEUR: In the IPCC's reports there has been lots about our only having 10 years or 11 years to—I contemplated saying “solve this problem” but I appreciate that it is beyond that; we are not going to solve this problem. Are our targets consistent with what the IPCC has said in saying that we have that short amount of time to, at the very least, make substantive efforts?

Mr Rattenbury: I think they are in the sense that by 2020 we will have cut our emissions by 40 per cent, which is broadly consistent with the findings that were set in the United Nations commitments of the parties around 2007-2008. Those were the sorts of numbers they were saying that developed countries should be putting in place. We have met that. The IPCC report on keeping to 1.5 degrees Celsius talks about needing to achieve zero net emissions by 2050. The ACT has set the goal of achieving zero net emissions by 2045, so we are a little ahead of that.

When we legislated our interim targets last year, that was based on advice from the Climate Change Council. Their advice was very clear that we needed to move as quickly as we could both in order to meet that 2030 deadline and to make sure that we bought ourselves as much margin for error as possible. I think they are conscious that some areas of emissions will be really hard to cut, so we need to cut the ones we can as quickly as possible. So our emissions targets have been 65 to 75 per cent below 1990 levels by 2030, essentially two-thirds to three-quarters of our emissions cut by that timeline. It certainly puts us at the front edge of jurisdictions globally.

MS LEE: And where are we at now?

Mr Rattenbury: Our annual inventory will come out in the next couple of months. But we are on track to be at that 40 per cent level by 2020. It is a bit of an exponential curve. We have been about 30; we have not been close to 40 in the past couple of things, but it does catch up quite quickly.

MS LEE: We have talked about the 40 by 2020, but then in the key priorities it talks about reducing emissions; sorry, that is from government operations. We had a 33 per cent—

Mr Rattenbury: Yes.

THE CHAIR: I have some questions on community zero emissions grants. First of all, I want to know what a solar tree is that Brindabella Christian College got \$25,000 to pilot.

Mr Rattenbury: With the zero emissions grants, what we wanted to see were things that show some community leadership and some innovation. The proposal put forward by Brindabella Christian School, which they termed a solar tree, which is quite impressive to look at in the drawings that we have seen, looks like a tree but the leaves would be small photovoltaics. The plan for that is that it would be in the playground where you would otherwise have a tree. Children would be under it in the shade of the solar panels, and it would look quite striking. We have not seen one of these delivered in Canberra, but a quick google of solar trees shows that they do look quite attractive. The grant was found to be meritorious because not only was it something that we have not seen before and something that is quite striking and innovative but also the Brindabella Christian College wanted to use it as an educative tool about the wonders of PV in education, not dissimilar to some of the other schools programs that we run. So we look forward to it being delivered.

THE CHAIR: Generally with the program, I note that the title is community zero emissions grants. Are they generally intended for community groups or something that has a more social impact, or is it about providing better support to communities? I am particularly curious about the Australian PV Institute, which seems like a national project that we have given a substantial portion of money to.

Mr Rutledge: There was not really a limitation about that. What we wanted to see is tangible benefits to the ACT. Some were non-government organisations: SEE-Change, the Conservation Council, the City Farm. Some of them were employer groups. The Christian school were successful. We were looking for a bit of innovation, trying to get some engagement beyond who we would normally engage with. One with which we got a totally different audience was the Australian Dance Party, which released series of videos that really hit the arts community. The grants were found meritorious for both the product that they were going to deliver and for how they could influence people that we would otherwise not assume would be on the climate change message.

THE CHAIR: So “to lead initiatives that support the transition” is not necessarily about transitioning; it is about performing an education function or an awareness function.

Mr Rattenbury: It can be both. We wanted to basically unlock community ideas. There are lots of people out there who are very enthusiastic and have a great idea but do not quite have the capital to get started. The grants could be quite small. The maximum is \$25,000 but if someone just came along and said, “I need \$5,000 and this is the project,” and it seemed like a decent project, they would be in the running as well.

THE CHAIR: But generally it does not seem like that is the case.

Mr Rattenbury: No. Generally people are putting in higher priced items.

THE CHAIR: This is one of the largest grants programs that we offer, is it not, as a government?

Mr Rattenbury: It is about \$150,000 a year. So no, I am sure there are larger grants out there.

Mr Rutledge: Most of the grant applicants were putting in a lot of volunteer or in-kind support, so the cash component that the government donated was never the full cost of whatever they put forward, as would be similar to any other grants program.

Going to your earlier question about the Australian PV Institute that was about helping them, there are plenty of people who are interested in PV but have a number of questions about whether their house is suitable, so that was just to develop an easy to use app to help residents sort themselves out and access that information. They are a PV industry body but it was getting them away from a retailer where sometimes there might be a bit of distrust. We have seen that with the Actsmart program: people prefer getting advice from government, rather than a retailer. So we saw this as an online opportunity for them to get that information and consider it without the pressure of a sales agent in the home. That is why that one was found to be meritorious.

THE CHAIR: This was in the 2018-19 year. Do we know the ultimate impact of these? I appreciate that we are looking for innovative ideas here. But, particularly with something like that, at the conclusion of the grant are these groups required to report back on the ultimate impact that that cash had for them in achieving the aims that they set out to do?

Mr Rutledge: There is an acquittal process for the grant but, no, we do not go back, say, a year later and then retest it. We ensure that the money has been spent as the government granted it but there is not a 12-month evaluation on that.

THE CHAIR: I am just interested, especially about that SunSPoT tool. If that is something that is supposed to make things easier for community members in the ACT—I have never heard of it. Should we not have heard of it by now?

Mr Rattenbury: Maybe we can seek some advice from the SunSPoT team and get back to you.

THE CHAIR: Great. Thank you.

MS LEE: I want to continue the questioning on the community grants. Who actually makes the decision on who gets a grant?

Mr Rutledge: We set up a panel within the directorate. I am the delegate who signs off the final decision.

MS LEE: For example, there is one where the Canberra Environment Centre has targeted resources to “encourage sustainable behaviour for the Canberra Chinese community”. Why specifically the Chinese community?

Mr Rutledge: That was their proposal.

MS LEE: I understand. But that would not explain—

Mr Rutledge: I was not part of the evaluation panel. Ms Malouf, do you recall?

Ms Malouf: They had some resources within the organisation that could do some translation for them, both verbally and written, and they thought that they would give that a try as something that could potentially be an example they could use for other sectors of the community.

MS LEE: So it just happened to be that committee that had those—

Ms Malouf: An opportunity.

MS LEE: Okay. I just wondered whether there was a particular—

Ms Malouf: It was just an opportunity.

MS LEE: Do we know how that is going? Have they assessed to see whether that has worked out well and if there is scope to expand that to other multicultural groups?

Ms Malouf: They are still trialling those workshops and that collateral to see how it works with that community. We are still in the trial phase. As Mr Rutledge said, at the end there will be an acquittal and each of the applicants gives an idea of which of their milestones they met through that process, whether it be workshops delivered, collateral designed or an app.

MS LEE: Will we get an update next reporting period? Would that be the—

Ms Malouf: Absolutely, we can do that.

MS LEE: Thank you. I want to go to the renewable energy innovation fund. What are the performance indicators for that fund? What are we looking at?

Mr McGlynn: In broad terms the intent of that fund is to develop the renewable industry in Australia. That runs from encouraging new businesses to come here to

encouraging entrepreneurship and innovation in the community and making sure that everybody links together. So there is a range of activities under that program, including a renewable energy hub which operates out of a facility in the city, which basically brings a lot of the newer and the more experienced companies together to be able to talk together about how they can work in partnership in terms of technologies and also learn from each other in how to build businesses and those sorts of things.

We also fund a range of research and development activities. One of the bigger projects is a project at the ANU, a battery program where we provided, I think, \$5 million to a program that now has expanded to well over \$10 million, which is probably the leading battery research project certainly in Australia but possibly in the world. It is looking, again, not just at technology, although they are doing some really good work on that, but also at how regulatory systems within energy markets will either inhibit or promote battery storage and what sorts of changes might be necessary in the future to do that sort of thing.

So it is the full range of activities that we needed, from research and development to early starts and to more mature companies in terms of how they bring it together in broad terms. Hugo may have more specific terms, but that is broadly the range of the things that we have done.

Mr Temby: That is right. There is a pillar that is funding research and development. There is another pillar that is funding clean tech commercialisation. Another pillar is funding the renewable energy precinct, some support programs there. And the fourth pillar provides some trades training support as well.

MS LEE: Are you able to provide a breakdown of the funding for each of those pillars? Do you have that? If not—on notice?

Mr Rutledge: We can provide that detail later. The other thing to add is that we have a business advisory board that governs the oversight of this. That is supported by the directorate. But the money within the renewable energy innovation fund is provided by the winners of the reverse auctions, so it is not directly taxpayers' money and so it is oversighted by a business advisory board—

MS LEE: Is that part of the contract?

Mr Rutledge: Yes. Part of the contract was some local industry development. That could have been either a direct investment into the renewable energy innovation fund or it could have been a specific project. One that comes to mind is the hydrogen vehicles and the refuelling stations. Different bidders put forward different cases.

To ensure that we were direct granting or co-funding building innovative businesses in the renewable energy sector was a skill set that probably we, as government, were not right across, so we set up a business advisory board and they govern the fund. What we do as the ACT government is support both the business advisory board and the minister in their different roles in oversighting that. We provide some secretariat support to that.

As to where that money goes across those pillars, I think we will put together a fact

sheet and provide it to the committee.

MS LEE: That would be wonderful, thank you. I think you mentioned the businesses, the combination of local ones and some of the start-ups and older ones. How do you measure the effectiveness or success? Is it by way of how many renewable businesses start in ACT, or is it by way of what they are able to achieve? What are some of the factors that are taken into account in that regard?

Mr Rutledge: I do not think that we put individual KPIs on each of the businesses. But we have seen a growing of the renewable energy sector in the ACT, even though a lot of the big builds have been in South Australia for the wind farms.

MS LEE: How do you measure the growth? Is it by—

Mr Rutledge: We measure the growth just through economic value to Canberra. We work with our friends in the Chief Minister, Treasury and Economic Development Directorate, and we monitor the growth industries. What you will have seen at a macro level is that there has been a large growth in renewable energy and there has been a large growth in the services. We would like to think that some of that is directly related to the work of the renewable energy innovation fund. We have seen some good case studies that have come out of our innovation hub that have gone on to springboard into successful businesses. Whether we could directly link their involvement in the hub to that—we would like to claim it but I am pretty sure they were successful businesses otherwise—

MS LEE: You can claim it here; it is fine. They are not listening.

Mr Rutledge: We have claimed some of the winners. We try to claim steam machines all the time. We try to claim deposit all the time—but maybe we just created the right ecosystem and the right environment for them to thrive.

Mr McGlynn: It is very hard to evaluate the effectiveness of innovation processes because, as you know—

MS LEE: Yes, that is what I was wondering. What do you take into consideration?

Mr McGlynn: There are a number of measures like that. There are also qualitative measures. One of them, for us, is that people come to us with innovative ideas. AEMO, the Australian Energy Market Operator, has been looking at places where they can try out new ideas in terms of how the energy market is going to work. They come to us naturally now because they think we are a place where innovative things happen. We have companies come from all over the world now to look at us in terms of “How can you help us introduce some of these new technologies and work with us?” To me, that is one of the clear signs that it has worked to a degree where Canberra is now recognised as a place where renewable technology innovation is happening and people can come.

THE CHAIR: Can you give an example of some companies that have come to us?

Mr McGlynn: When we had our national electrical vehicle strategy, vehicle

manufacturers from all over the world came and said, “With your studies, we would like to come to you and bring some cars here.” We have been working with Hyundai and other vehicle manufacturers on arrangements to bring those vehicles here in a much faster way than would have happened otherwise. That is the sort of thing that we are seeing.

Newman is one of the world’s leading power companies, and it came to Australia as part of the option because this is the place where things are happening. Now they run a lot of their facilities out of Canberra because they think that it is a good place to do things.

MS LEE: In terms of research, you mentioned obviously ANU is doing a lot of work in the area. Are there either tertiary or other organisations that are receiving funding for research?

Mr Rutledge: Not through direct funding from this. Two quick examples are the work that is happening at CIT in hydrogen. There is a test facility at the CIT at Fyshwick where they are trialling 100 per cent hydrogen in the gas network. You can go out there—there is a lovely barbecue there—and you can have a hydrogen-fuelled sausage sizzle. But that is not only about how hydrogen works in the gas network. It also means the plumbers of the future will be able to work with a different gas to what we are using now. That is very cutting edge. At the CIT, at the Bruce campus, we have an operating micro-grid, going to an earlier comment on that, and that is, again, both electricians and electrical engineers working on how micro-grids happen.

You would know that in the territory we have the only master’s degree in wind. The CIT accredits wind mechanics, in effect. We see these spin-off businesses, at that high level of research, the entrepreneurs, and then the tradespeople who are going to be working in the energy market of the future.

MS LEE: I go back to the strategy. In terms of some of the, I suppose, initiatives that have been announced and are part of community debate at the moment, including the car-free day that has been making media waves, can you give some detail on what the ACT government foreshadowed when they announced the possibility of a car-free day? I think there have been a lot of different takes on it.

Mr Rattenbury: There have been some interesting ones, yes. This is one of 98 actions in the strategy. It is certainly not intended to be one of the main actions but it is one that we think is a valuable one. It picks up a globally recognised concept of car-free days, which is the idea of shutting down a road or some roads in an area, usually on a weekend, to enable the community to reclaim that space as part of the public realm and to use it in different ways to just having regularly lots of cars whizzing along it.

What I can assure the committee is that the ACT government has never intended to ban car use right across the city. The ACT government has never intended to close down the Tuggeranong Parkway or Northbourne Avenue at 8.30 on a Monday morning. These are not the sorts of things we are talking about. These are not what other cities do.

We are recognising this movement that says it might be part of the city, it might be a town centre, it might be a particular road for a particular period so that people can use that space for other purposes. As both the Chief Minister and I have talked about, to give a real-life case study, things like the Multicultural Festival or Enlighten do that sort of thing on a smaller scale.

MS LEE: It is not going to be on a Tuesday as I think the Conservation Council proposed?

Mr Rattenbury: They cited a particular date. To be honest, I have not looked at next year's calendar to know what day of the week that is. I certainly support them that we want to have these events. I would like to do it with community partners. I think it would be great to involve community organisations to give them an opportunity to do something a bit different. But as I say, no, we have no intention of impacting on people's daily commute in the way that some have interpreted it.

MS LEE: Staying on the key priorities of the strategy and staying on transport, you talked about the private uptake of electric vehicles as something for exploration. The strategy summary says that there is a need to form some further incentives. Can you give some detail on that?

Mr Rattenbury: Sure. The ACT already has the most generous incentives for private electric vehicle uptake in Australia in the sense that there is an exemption from stamp duty for a zero emission vehicle. There is also a 20 per cent discount on registration. This is better than other jurisdictions offer.

Also through our commitment to turning the government fleet to zero emission vehicles, we anticipate that that will result in a stronger market for second-hand vehicles in the ACT because those vehicles are on a lease—the ACT government leases our vehicles—and generally when those vehicles come out of lease they go to auction houses across the city and people can go and buy them second-hand. You are starting to create a second-hand market.

In terms of future options, we remain open to other ideas. We have in our zero emission vehicle strategy a number of practical steps such as putting in place the right for people to use the transit lane in Canberra and that is actually now the case from 1 October or 1 November—I will check the date—but you are allowed to use any transit lanes in the ACT, the main one being, of course, the one on Adelaide Avenue. We are also exploring whether there are other incentives we can put in place to help people overcome it.

What we are also learning through our own work is that the economic case is stacking up really fast. The ACT government is using electric vehicles in our fleet now. What we have observed is an 80 per cent reduction in running costs, compared to what was the case before when there was a petrol vehicle doing that job. Whilst at the moment there is a bit of extra up-front cost, through the leasing arrangements we have been able to put in place and just tweaking those slightly, these vehicles are proving to be cost neutral for the ACT government over their lease cycle.

Most experts predict that the price of electric vehicles will continue to come down and

that there will be price parity with petrol vehicles in the next three to four years. Frankly, for people at that point if you have got an 80 per cent reduction in running costs and the same price to buy the vehicle, unless you have got a really particular need for driving long distances all the time, it makes a really strong economic case to go out and get an EV yourself.

MS LEE: Speaking of driving long distances, one of the concerns people have in terms of electric vehicles is the charging facilities. Do you have any detail on how to improve that?

Mr Rattenbury: The first part of that is being really clear with people to think about what their actual needs are. I think people do hold that fear. The reality is that most people do not drive more than 50 or 60 kilometres in a day. If people are just going to work and back, maybe with a detour to sport on the way home or to pick some kids up or get some shopping, all the things people need to do in their life, most people will knock out 50 to 80 kilometres a day, depending on where you live in town.

The new electric vehicles have a range of 200-plus kilometres. Most people can happily do their day's activities, put the car back in the garage at home, plug it into the wall and be ready to go again the next day. The Teslas have a much bigger range; you can drive to Sydney on a single charge. There is a range of charging points across the city. That is an important part of helping people overcome the range anxiety issue. My first answer to most people when they talk about that sort of range anxiety question is, "Have you thought about what your actual daily need is and the capability of modern vehicles."

But we need to back it up. We need to give people confidence. That is what we seek in rolling the network out. Also, the EV strategy particularly talks about partnering with the New South Wales government and local councils on the key routes out of Canberra, here to the snow, here to the coast and here to Sydney. They are not everybody's journeys, but they are the more common journeys, so that can also help people.

MS LEE: The strategy refers to planning for a compact and efficient city. What does that mean?

Mr Rattenbury: Let me just add one more point on electric vehicles. Many households have two vehicles. If you are a person who mostly gets around town but occasionally drives to visit relatives in Dubbo, the Gold Coast or wherever, you might use the EV for most of the work around town and use your petrol vehicle to make the long hauls. They are the sorts of things where I would say to people, "Think about what your usage needs are and how different vehicles can play different roles."

In terms of a compact and efficient city, I might defer to Mr Ponton, from his planning expertise, but what we are talking about is the idea that if we continue to just spread out—if we go over the river towards the Namadgi National Park or if we go out to Kowen, for example—yes, we can do that, but it is enormously expensive. We would have to lay out a whole lot more infrastructure. We have pretty good infrastructure in the city. If we can get a more compact design, with more people living in suburban infill areas, we do not need to expand the transport network as far;

we can use the existing sewerage and electricity networks. People do not need to drive as much; they might be able to walk and cycle. These are all the planning issues that can make our city more climate friendly.

Mr Ponton: That is a very comprehensive summary. It sounds as though it was spoken by a true planner, so it brings a warm glow to my heart.

THE CHAIR: On car-free events, many cities around the world have been embracing this concept, including, most recently, London and others. Are we looking at lessons learned there? I saw that Tower Bridge was shut for yoga. It is just using spaces in a different way. I appreciate that we are not shutting highways in this city—we are not going to be impacting people’s daily commutes and things like that—but given how popular this concept has been right across the world, are we looking to draw from those examples in this city?

Mr Rattenbury: They certainly provide inspiration. Cities much bigger than Canberra, and you have touched on a couple of them, do this. Cities that have much greater congestion than we do have done it. I would hope that this would be a community partnership and, in many ways, community led. From a government point of view, we would be very open to people making suggestions to us for things they want to do. In your electorate, Ms Cheyne, if the Belconnen Community Council came along and said, “We would love to close a couple of streets in Belconnen town centre on a Saturday from 9 until 3 to have a Belconnen community festival,” that would be fantastic. In particular, I would be very pleased to have the community leading it in that way. We might offer a few grants to help people get events going or proactively approach a few organisations to see if they are interested. I expect it to be a very grassroots exercise; I know that people are enthused about this idea.

THE CHAIR: It is really that fundamental concept about thinking differently about spaces that are dominated by vehicles.

MR MILLIGAN: If you had those community events and Belconnen Community Council wanted to be a part of that, would there be no charge for them to close that road, no charges for street closures?

Mr Rattenbury: We have not quite got to that level of detail, but given that government wants these to happen—it is part of the climate strategy—we would need to think about what in-kind support we could provide.

THE CHAIR: Or just making the process easier in terms of getting permits and things like that. That is the daunting part for community organisations.

Mr Rattenbury: Yes, it is.

THE CHAIR: We might put in a rec on that.

Mr Rattenbury: We live in a city that is really reliant on a car, and we are going to be for some time. We need to work with that, but also enable people to imagine a different future, to not always operate in the paradigm they have operated in but to think about doing things differently.

MS LE COUTEUR: Action 4.3 in the plan says:

Amend planning regulations to remove the mandating of reticulated gas in new suburbs.

We have done that for one suburb already. Are there any lessons from that?

Mr Rattenbury: There are a few. For members who are not familiar with this bit of the planning rules, the ACT is the only jurisdiction in Australia that mandates that gas must be rolled out as a utility when a new subdivision is built. There are a number of requirements for electricity, sewerage and the like. The ACT, uniquely, has gas in there. This policy goes to that point.

As you touched on, Ginninderry approached the government to seek an exemption from that. They wanted to build an all-electric suburb. The government did grant that exemption for the first two stages of Ginninderry. That gives us time to see how it goes and learn some lessons. We are pretty early in that phase yet. Ginninderry, as you know, is only just getting going in terms of selling the blocks, and people building and those kinds of things.

One of the interesting lessons already—and this is one we will need to reflect on—is that, despite Ginninderry’s commitment to being an all-electric suburb, Evoenergy opted to roll the gas network out down the street anyway. This is an interesting one to reflect on. To my best knowledge, that will have cost at least several hundred thousand dollars, but nobody in Ginninderry will be connected to that network. That means that every other gas customer in the ACT will need to pay for that through the pass-through cost system that operates for utility operators. That is a surprising approach by Evoenergy, and one that the government will be looking at closely.

MS LE COUTEUR: It has also been suggested that the approaches be a bit more widespread, in other words that it will be electricity customers as well who will be paying for this. That has been said to me by people who may know. The surprising thing is that, regardless of who is paying for it, it was even done.

Mr Rattenbury: Correct.

MS LE COUTEUR: Given that disappointing result, are we considering changing it to mandate no gas? If it were still optional to have gas infrastructure, there is an obvious conclusion: just say, “Don’t do gas.”

Mr Rattenbury: That position has not been drawn at this time. Let me step back. Natural gas will be about 22 per cent of our greenhouse gas emissions—the second biggest after transport—going forward. We clearly need to decarbonise that, essentially remove natural gas from our energy system. The government has set that position in the climate strategy over to 2045; it is a long-term strategy.

The details of how we go about that are more complex. Another piece of work that is happening at the moment is a sustainable energy policy through to 2025. That is a more specific piece of work about what the overall energy package looks like. The

question of how to deal with gas would be given more consideration as part of that more detailed piece of work. That has been out for consultation recently; I think the consultation has just closed.

Mr Harding: Submissions closed on 1 November.

Mr Rattenbury: We will now go into the detail, look at those submissions, and have more conversations with those who have submitted. That will come out through the course of next year.

MS LEE: On carbon-neutral government, page 60, where are we at? It says that the commitment is for net zero emissions in its operations by 2020.

Mr Rattenbury: Yes. That is one of the interesting parts of the policy, and it is a real change in direction from previous government strategy. Previously, it was for government to be carbon neutral by 2020. We could have achieved that very easily by simply going out and purchasing a whole bunch of carbon offsets. We certainly will not be at zero emissions out of government by 2020; it has always been very clear that that was not the target. We would have had to go and purchase a bunch of offsets. The estimates were that that would have been a couple of million dollars a year.

Though this process, based on advice from the Climate Change Council and discussions with a range of stakeholders, the government formed a view that we would not take that policy position anymore. Rather than spending money on offsets, we decided that we would put a series of ambitious emission reduction targets in place for our government agencies, and, instead of spending money on offsets, we would spend the money locally, reducing our own emissions and putting that back into government agencies through our internal carbon pricing model.

I think that that is a better approach. I think it has more integrity from a climate point of view. It keeps the money local; it develops local expertise; and it will produce a long-term result of actually reducing the emissions rather than just having to pay an offsets bill each year, which is what would have happened under the old position.

MS LEE: When did that change?

Mr Rattenbury: In this strategy. Previously, government policy has been to be carbon neutral by 2020. This strategy explicitly says that we are removing that policy and we are taking this new approach.

MS LEE: Does that mean that nothing is spent on offsets under this new strategy?

Mr Rattenbury: Yes.

THE CHAIR: We will take a break for afternoon tea.

Mr Rattenbury: Ms Cheyne, do you want all the officials to stay?

THE CHAIR: After the break we will deal with the energy efficiency cost of living improvement administrator and the Office of the Commissioner for Sustainability and

the Environment.

Mr Rattenbury: For clarity, my intention is to join for the session around the energy efficiency improvement scheme. That sits under my ministerial responsibilities. The office of the commissioner is an independent office, so I will leave for that part of the session.

THE CHAIR: Yes.

Hearing suspended from 3.16 to 3.32 pm.

THE CHAIR: We will now consider the energy efficiency cost-of-living improvement administrator and Actsmart. I thank officials for being accommodating.

MISS C BURCH: What are the criteria for a product to be approved as part of the energy efficiency improvement scheme?

Mr McGlynn: We are willing to examine any activity that delivers the objectives of the scheme. We assess it for its practicality, its safety and its cost-effectiveness in delivering the objectives of the scheme. We look through that and make sure that, for any activity that is approved, we have a clear set of rules for how it is to be delivered and how we are going to measure the savings that come from it. If there are any safety or training requirements around it, we identify those and make sure that they are accounted for properly. Then we approve an activity that can be undertaken by retailers.

There are many more activities that are approved as activities than there are delivered in the marketplace. The fact that an activity is approved does not require a retailer to deliver it: it is available for a retailer to deliver it if necessary. I cannot remember the numbers, but there are probably 20 or 25 activities that are approved and currently seven or eight that are delivered in the marketplace because those are the ones that one retailer, ActewAGL, has decided are appropriate to deliver.

MISS C BURCH: If something has been approved from another jurisdiction, will it automatically be approved here or does it still get assessed in the same way?

Mr McGlynn: It would still be assessed, but we have a provision under the legislation to allow us to effectively refer to those activities where we think they are appropriate. Then we usually add on a bit of infrastructure around them to make sure that they are appropriate to deliver within the ACT where we think that is necessary. Rather than having to restate all the detail, we can refer to those.

MISS C BURCH: Who decides what activities fall under the scheme?

Mr McGlynn: The minister decides the activities that are allowed in the scheme.

THE CHAIR: My question is about the Actsmart sustainable home advice service. Is that available to any household or does the household need to meet certain criteria to get that advice?

Ms Malouf: That is available to any householder. It can be a phone inquiry or an email inquiry; we also have in-house assessments. You do not have to own your home. You do not have to have a freestanding home. It could be a rental property. We can give advice on any aspects of energy efficiency tailored to the site.

THE CHAIR: Are there limitations on how many times a household can contact you for advice?

Ms Malouf: No; as many times as they like.

THE CHAIR: I am looking at the table on page 61, home energy assessment and education. Are those assessments what that home advice service is?

Ms Malouf: I will just have to check page 61. We have a low income home energy assessment program as well as a—

THE CHAIR: This is low income households; correct.

Ms Malouf: The low income one is the one we run through our community partner, St Vincent De Paul. That is exclusively available to low income households.

THE CHAIR: So the 728 does not form part of the 1,732 under the home advice service?

Ms Malouf: That is correct; they are in addition.

THE CHAIR: Sorry to have conflated the two. I will move to the St Vincent De Paul one. Seven hundred and twenty eight out of 2,300 is a decent number. I know that in previous years we had year-on-year splits in the column in the table. I cannot see how this compares to previous years, but 728 out of 2,300 is quite a lot. Has that increase in the use of that assessment and education come from more low income households going out of their way to access the service or has it come more from the top down?

Ms Malouf: It is about comparative year on year. We tried some different alternatives to in-house assessments to reach a greater part of that community. Through our St Vincent De Paul partners, we have delivered some workshops. Those workshops have been designed to get a group of people in a room. Whether it be a group that St Vincent De Paul pull together or part of our CALD organisations, they can come to us and we will deliver those basic 10 steps on what you can do around the home to be more energy efficient. It does not have to be a physical change. It might just be how you open and close your blinds, how you heat single rooms rather than the whole house, where you plant trees, how you shade windows, all of those simple things that are very cost-effective or neutral. It is an opportunity to reach more people.

THE CHAIR: So participation in those workshops is counted in that category?

Ms Malouf: In that category as well, yes.

THE CHAIR: For future years, it is only minor, first visit only. Is that the right term for that?

Ms Malouf: That is a straight visit into the home.

THE CHAIR: So workshops are not counted in that category?

Ms Malouf: Workshops are in the assisted component, which is the next line up.

MR MILLIGAN: In relation to the energy efficiency improvement scheme, I noticed that insulation is part of one of the approved activities. Is that just roof insulation or does it also include under-house insulation? Secondly, what has the uptake of that been, and what has been delivered in that space to help meet the targets that have been set?

Mr McGlynn: The insulation activity is one of the ones that I told you about that is now an approved activity under the scheme, so it is available for a retailer to deliver. At the moment, there is no retailer delivering that in the marketplace. That is something that ActewAGL has indicated they want to think about in terms of how they might deliver that to households sometime in the future. That is a decision that they will need to make.

In developing that insulation proposal, we were aware of issues around insulation in the past. We wanted to make sure that that measure was developed very carefully. There has been an extensive process over a number of years to develop what the requirements for that would be, including some extensive safety requirements to ensure that that program, if delivered, will be delivered with a high level of safety. Those sorts of things include that there is no foil insulation allowed under this program.; there are requirements for accrediting and training installers; there is a requirement to turn off the power to the home before any insulation happens, because that is potentially a source of safety problems; there is a pre-installation inspection required by a licensed electrician to make sure that the electric system is safe to operate in; and it is required that the program be delivered by accredited insulation providers. There is a whole series of systems in place to make sure that that happens carefully.

MR MILLIGAN: Has that actually occurred? Has retail seen what providers are out in the current marketplace that could meet those requirements and conduct that activity?

Mr McGlynn: I cannot speak on behalf of ActewAGL, but my expectation is that they are now looking at that and how they might deliver that program in the future. At the moment, they are not delivering it to the market.

MR MILLIGAN: Obviously they have not promoted this option, because they are not in a position to implement it.

Mr McGlynn: That is right.

MR MILLIGAN: Is the insulation just for the roof or is it approved activity for under the house also?

Mr McGlynn: Underfloor as well. It is the roof and underfloor.

MS LEE: Going to the new climate change strategy again—I will get off this topic in a moment—will there be any changes to the EIS because of the new climate change strategy?

Mr Rattenbury: Not expressly as a result of the new strategy. As you will recall, we have just made legislative change in the Assembly this year. That came about as a result of the review of the EIS, which has been in place for some time. We have extended it through to 2030 and made a number of changes around measuring savings in energy instead of greenhouse gas emissions. As we move to 100 per cent renewable electricity, greenhouse gas emissions are not the thing but energy efficiency is still a valuable thing to achieve. Measuring units of energy is a better way to go about it. We have expanded to potentially cover transport activities and also increase the opportunities for low income households. I think that there is a really strong social outcome that we can achieve through this program.

MS LEE: In terms of the transport activities, what types of activities are we talking about?

Mr Rattenbury: The honest answer is that we do not know yet; there is not a mechanism that we have in mind. The change to the legislation says that we can now do transport activities. Now we need to come up with a mechanism. It is not unlike the way we said that we want to get to 100 per cent renewable electricity and then the directorate researched it and came up with the reverse auction system. Now that the legislation framework has changed, I guess they are thinking about what the options could look like.

MS LEE: Have you considered expanding it to include households that are transitioning away from gas to more sustainable forms of electricity?

Mr Rattenbury: That is already part of it in the sense that there are opportunities in there, if you are making that transition, to get financial support.

MS LEE: Have you got specific details on that or can you point me to something?

Mr McGlynn: One of the activities allowed that is in the marketplace at the moment is, for people who want to transit from a ducted gas system to ducted electric—an electric-based system—that is available as an activity under the scheme. Replacement of inefficient electric systems is also there. Antonia might have more detail on the specifics of those arrangements.

Ms Harmer: I have read and understood the privilege statement.

There is a range of activities being offered by the tier 1 retailer at the moment, ActewAGL. They include ducted reverse-cycle air conditioners, as the administrator said, replacing ducted gas with reverse-cycle ducted electric; replacing flued gas wall room heaters with electric reverse-cycle air conditioner split systems; and replacing gas hot water systems with electric heat pumps. All of those activities have discounts available.

MS LEE: And there is no intention to expand that?

Mr Rattenbury: In what way, Ms Lee?

MS LEE: Either by way of other types of appliances or by way of a cohort of the community, such as the low income sector. Is there any other scope? There might not be; I do not know.

Mr Rattenbury: In terms of low income households, we have increased what is called the priority household target from 20 per cent to 30 per cent for 2020. Again, that goes to my earlier observation around making sure that low income households particularly benefit from this scheme, because that has a lasting impact: not only do we make the changeover but they have lower energy bills year after year so it increases the cost-of-living savings for them as time goes on.

Ms Harmer: ActewAGL is also doing the fridge buyback program where they remove inefficient old fridges and properly dispose of and decommission them; also, through the Housing ACT program, which helps over 2,200 low income households, Housing ACT tenants can receive two electric heating upgrades.

THE CHAIR: What does properly disposing of fridges mean?

Ms Harmer: It means degassing them and sending them to a metal recycler.

Mr Rattenbury: There are quite potent gases in fridges, ozone-depleting substances potentially.

THE CHAIR: So we are not just dumping them?

Mr Rattenbury: No.

MS LE COUTEUR: I attended the business expo, which was generally great. Do you do any scrutinising of businesses as to whether they are appropriate to be part of it?

Ms Malouf: We suggest that the scrutiny is really whether you deliver services to businesses. It is generally a business expo, though there is some opportunity for householders as well as schools. It needs to be delivered within the ACT and it needs to have a range of services. We do not want to have all waste companies or all lighting companies; it has to have a balance so that there is a broad range of exhibitors that can showcase on the day.

MS LE COUTEUR: There is no environmental scrutiny? There is no scrutiny as to whether it is good for the environment or otherwise?

Ms Malouf: No, there is not.

MS LE COUTEUR: There was one particular exhibit which I felt would not have met environmental criteria had such existed.

Mr Rattenbury: If you want to let us know offline, we will have a conversation.

MS LE COUTEUR: I am trying not to mention it. There may be more than one, for all I know, but there was certainly one that I felt would not have met them and I think people would tend to assume that there was some sort of Actsmart endorsement in the business expo.

Mr Rattenbury: Fair question. We will take that offline so that you can give us some indication without necessarily needing to make it an awkward conversation.

Short suspension.

Appearances:

Office of the Commissioner for Sustainability and the Environment
Auty, Professor Kate, Commissioner for Sustainability and the Environment
Roy, Ms Caitlin, Assistant Director, Investigations

THE CHAIR: We are now hearing from the Office of the Commissioner for Sustainability and the Environment. Welcome. I start by asking whether witnesses have read and understood the pink privilege statement that appears before you?

Prof Auty: Yes, we have.

THE CHAIR: Commissioner, do you have an opening statement?

Prof Auty: I have been advised that opening statements have more or less been dispensed with.

THE CHAIR: They have been.

Prof Auty: No is the answer. I am happy to take questions. Could I just say that I have Ms Le from the EPSDD here in relation to financial matters and Ms Roy who is from my office.

THE CHAIR: Your investigation, *The heroic and the damned*, looked at the lower Cotter catchment restoration area and made a number of recommendations. I appreciate that there are a number of things that can impact on the health of this area and threaten our water quality, including fire, weeds, erosion, vehicles. I am just curious: in your view, what is the greatest threat to water quality in the ACT at present?

Prof Auty: What a question! Thank you very much. In relation to water security, it is almost certainly climate change. That is what we would say about that. In that particular catchment I called it heroic because there is a lot of work being done in an effort to deal with a number of issues, and those issues range across what you have just described: erosion, dealing with the soil types, dealing with the fact that there is a need to regenerate and revegetate up there, worried about what is going to happen with the pine wildings, how you deal with that as an issue, how you deal with the other pest species up there, for instance, feral pigs and deer, and of course, that is an ongoing issue. I would not want to say that a particular issue was any more important than any other. I think that we would want to look at it holistically and say that everything is of concern.

It is fascinating because it is, of course, one of the ACT's very significant catchments and we want to make sure that the water supply that comes out of that particular catchment is as clean, clear and pure as it can possibly be: it strikes me that all the things that we spoke of were important.

One of the things that we picked up—and I have made this point in the report as an orphan recommendation—deals with that question of arson of vehicles. Of course, fire

is a considerable concern in relation to that catchment and that is why that recommendation is there.

I made the point in that report too that we needed to see an overarching monitoring and evaluation framework. And that takes into account the fact that we need to see everything come together for the purposes of making sure that that catchment is in fact sustained, looked after and delivers what we know it needs to deliver for the ACT.

THE CHAIR: This is all interrelated to an extent?

Prof Auty: It is absolutely interrelated. In relation to the steering committee and the people that we spoke to, they came from a range of backgrounds. We had ecologists, we had water specialists, we had people who were concerned about the park status, we had people who were concerned about the Ramsar status, for instance Ginini right up the top there in Namadgi National Park. The fact that that range of people who spoke to us was so diverse gives a very clear indication of just what the extent of the issues is.

THE CHAIR: Ms Le might touch on bushfires as she was talking about it in an earlier session but I was particularly curious about our feral animals, which you have just touched on. I refer to deer, pigs, horses and so on. I appreciate that all feral animals are bad but if there is a competing interest between them in terms of where we allocate funding for eradication, what should we be concentrating on? Which of these creatures are we seeing trends in and what is the greatest risk to our water supply quality and security?

Prof Auty: It is pretty difficult to determine a hierarchy but from our conversations up there, I think people would say pigs. I think they would say that pigs were one of the most significant issues. I have, in fact, here at the table Ms Roy who was the person who brought that report together. We did some field trips and we had a lot of exposure to what was concerning up there.

We also had members of the ACT community, through national parks, talk to us about the issue of brumbies, and that has been an ongoing concern for them. And that picks up on the ACT's difficulty in being a landlocked jurisdiction surrounded by New South Wales, which has different policies. And people certainly brought that to our attention and we were privy to a field trip where they raised the question of horses in Namadgi in particular, and in the Ginini Falls area specifically.

I think it would be fair to say that it is hard to determine a particular species that you might want to target but pigs certainly make an awful mess up there and that is a real concern. I am getting the nod from Ms Roy, who has been involved in that report.

THE CHAIR: Is there anything you would like to add, Ms Roy?

Ms Roy: Yes. The only thing I would add is that the animals that you described are hard-hoofed animals and they are particularly problematic when it comes to waterways, as opposed to other pests. I would not distinguish between the three.

THE CHAIR: Am I missing any other pests that we should be looking at?

Ms Roy: General pests: foxes, rabbits et cetera.

Prof Auty: Cats.

Ms Roy: Cats, yes.

THE CHAIR: But in terms of what is really impacting on our water quality, it is the hard-hoofed animals?

Ms Roy: Yes.

MISS C BURCH: The state of the environment report for 2019, I understand, is not going to be given to the minister until 21 December. Is that correct?

Prof Auty: That is correct.

MISS C BURCH: Why has it been delayed until so late in the year?

Prof Auty: It is not a delay. It is actually the time frame over which we are required to provide it to the minister. He will have it according to the end of the time frame that the state of the environment report is prepared statutorily, and then it will be tabled in February next year.

I think it would be fair to say that we have the data on 30 June—that is when data closes off—but it would be virtually impossible to be analysing and providing that data to the community or to you in any manner that might be capable of being understood if we were to do it very much more quickly than that. We have been working in the office extraordinarily hard to get the report to the minister in December and it will be there at that time.

MISS C BURCH: As you say, that means it will not be tabled in the Assembly until February—

Prof Auty: February next year.

MISS C BURCH: which is not 2019; it is going to be tabled in 2020.

Prof Auty: No, it is not; 2020, yes. And that sits with the statutory requirements, as I understand it. It is the same as has occurred every other time in which we provided the report.

MR MILLIGAN: I notice that your organisation has spent more than \$56,000 on website development for ACT state of the environment reporting. What does this actually involve? It is on page 69 of the annual report.

Prof Auty: That is in relation to Icelab, who are the web designers who have provided Design Canberra's website as well, as I understand it, for this particular Design Canberra festival. It is not yet, at this stage, completed. That went through appropriate tendering processes with conversations with EPSDD about picking up that particular

tender.

It will be the website that you will have access to in February, which will be an interactive website with maps, with data analytics, with the trends in condition and with all the other material that is going into the state of the environment report, in a specific, targeted website for the public. Instead of simply providing the PDF, which is the big, dense text, we will be endeavouring to engage people with an interactive process, which will include the maps that show you where things have been done and what has happened. Icelab have been the chosen tenderer in relation to it.

MS LEE: You mentioned that it is not actually complete, as yet. Are you going to be hit with another invoice, or is this the full cost of the website?

Prof Auty: The full tender was \$70,000. That is the full tender for the total website, which involves not just providing a WordPress website but also engaging with us to make it a website that is interactive. That will be the full tender, as I understand it.

MS LEE: It is going live in February?

Prof Auty: Yes, in February. It will not be live sooner than that because, of course, the content will be the subject of the actual state of the environment report itself, which will remain, as I understand it, under embargo. I give it to the minister in December. The minister tables the actual hard copy report in February and at that time the website will also go live. My team will finish doing the big document and then also continue to work on the website between December and February.

MS LEE: How many hard copies of the report will be printed?

Prof Auty: We have often printed, I think, 70. I do not know that that is a number that we need to print. I would prefer that we could give you all a USB, frankly, but I think that we are required to make sure that you all have hard copies. We will print the number that we are required to print, and in the past it has been 70 for you. It may be that we print some others for people in the community. We have had people come to the office and ask for a hard copy of the previous state of the environment report. That was my experience when I first arrived here. So we do need to have some hard copies available for the public.

MS LEE: The other line item there is \$29,700 on environmental footprint development. What is that?

Prof Auty: Yes, that is in response to a question we often get from Ms Le Couteur about the environmental footprint. The office over a number of years has produced an environmental footprint which informs the ACT community about what its ecological footprint is. Previously it was 8.9 hectares. That was considerably more than probably was the case for most other jurisdictions. We have had that footprint done again by exactly the same academic, who is now retired from academia and runs a consultancy, so it is not to the University of New South Wales or Sydney, as I understand it; it is to his private consultancy. That is an interesting document, too, because instead of the dense text which had the mathematical formulas—we still have all of that—it is going to be a document that is a lot of graphs. It will be something that people will find

easily understandable. It will be available as part of the state of the environment report.

MS LEE: So that will also be available in February?

Prof Auty: It will be, it will be. It took us a long time to get that particular piece of work done, because there was a lot of work done on the data. The data has been retrieved and the methodology has been modified to the extent that it needed to be to change the way ecological footprinting is done. So it took a long time to get it. We initially spoke to the contractor about that late last year but we kept the conversation going about making sure that we got it done, and it will be in the state of the environment report. It forms part of the chapter on human settlements. There will be a number of segments to that, and the ecological footprint will be one of them. That amount specifically funds that particular contract.

MS LEE: Your office does some community engagement. The mediums that you use include social media, Facebook and Twitter. I am one of the followers. Who is responsible for running the Twitter, Facebook and YouTube?

Prof Auty: In the office we do not have a communications team, so I have every member of the office doing the Facebook page. They are rostered on to do that. I think it is Caitlin's day today, for instance. They pick up the stories that are out there and post them, and they also post the material that we produce ourselves. In relation to Twitter, I am the person who has the Twitter account and I generally try to make sure that we post similarly.

MS LEE: And the purpose of these is? You use Facebook and Twitter to—

Prof Auty: We have used those particular social media to try to speak to an audience that we think is interested in what we are doing and is not an audience that would ordinarily pick up the hard copy documents or go to the hard copy documents. So we have tried to make those particular posts relevant to younger people. We could always have people involved in our conversations about biodiversity in the office who are part of, say, the Conservation Council, who might be described as an older demographic. But we have found in relation to what we are doing, particularly with the new way that we are reporting using infographics, graphs and interactives, that we want to speak to younger people and get them to pick up the material that we are producing.

It has been interesting because it is not just Facebook and Twitter. We do not have an Instagram account and we do not use LinkedIn for the office. But we have been using story maps as well. You might see them on the website, if you have been able to go to the website. That is a specific, very new thing for us. We have found that with the Lower Cotter report, for instance, we have had 500 people go to that story map, which then takes them to the big, much denser report. We have had, I think, 1,000 people go to the report on Molonglo through the story map. That is also an Esri story map on the website. And in relation to the plastic bags report we have done the same.

We have spent a bit of time talking to the university students about what we are doing. The ANU has been very generous in inviting us to come to speak to a number of their undergraduate and some postgraduate students. What I have found is that if we can

take them to something which is socially interactive or social media, we are much more likely to get their interest in what we have done.

MS LEE: So it is fair to say that you use Facebook, Twitter and YouTube as a complementary way of engaging on the work that the office is doing?

Prof Auty: Yes. We have not used YouTube as much as we would like to because we do not have a video facility in the office. We have done a couple of videos. There have been a couple of handheld videos done by members of the team from time to time. We do not have the specialisation.

MS LEE: You mentioned, commissioner, that you are the one who is responsible for the Twitter account?

Prof Auty: I am.

MS LEE: Yes. Do you think that it is appropriate, or at the very least confusing, when your Twitter engagement includes interacting with tweets that have nothing to do with the environment seemingly and are or could be taken to be quite partisan?

Prof Auty: If that is the case, I accept your comment. I generally take the view that the environment is a political space, if that is where your question is going. It is a space—

MS LEE: I can point you to a specific tweet that you have liked. It is by a Simon Holmes a Court. It says:

a deluded #AltRight nutter in #kirribilli house!

amazing how this story died so quickly—i mean, this deluded conspiracy theorist has been babysitting the prime minister’s daughters.

not newsworthy? or killed by a suppression order?

It links to an article from the *Guardian*, which you cannot read in full from the screenshot but is, “Revealed: the QAnon conspiracy theorist who is friends with Australian”—and it cuts off there.

Prof Auty: I periodically post or like material that Simon Holmes a Court puts up, and I generally do it because it is to do with energy. That one is not to do with energy and it should not be there.

MS LEE: The other one I noticed that I would deem not very appropriate, or at the very least confusing, is one that you have liked—I cannot really tell who it is—that says:

What makes you think #Insiders is for journos? They have Gerard Henderson on today, which is why I didn’t watch it. #auspol.

Prof Auty: That also is not to do with energy or to do with environment. It probably is one which I have liked because I run a Twitter page of my own, so it should not be

there.

MS LEE: Would it be fair to say that that you should unlike those tweets?

Prof Auty: I can unlike those, Ms Lee.

MS LEE: Thank you.

THE CHAIR: Commissioner, you have a very popular personal account with 6½ thousand followers, which is @kateauty. You also have the Enviro Comm account. Potentially, there has been some confusion between the different accounts.

Prof Auty: We spend a lot of time running in this job, to try to do what we need to do. There are probably others where people might take the view that they are inappropriate. I am happy to amend the record. It does not trouble me to amend the record. I have my own Twitter following.

THE CHAIR: Indeed.

Prof Auty: I do not think it is very popular, with that sort of number attached to it, I have to say. I would dispute that.

MS LEE: Isn't it also fair to say that in the position that you hold, given that you are an independent statutory holder—

Prof Auty: I accept that, Ms Lee, and I have said I accept that. I am sure that there has been some overlap, and in the circumstances those two are matters that I can remedy. I am happy to do it.

MS LE COUTEUR: I will ask my expected question, Professor Auty. I am very pleased to hear about the time line for the ecological footprint. My specific question is: will this include this time an examination of the greenhouse gas emissions which are part of that, so that we can pull it out from the rest? We have not been able to do so in the past.

Prof Auty: If you are asking me whether it will include a carbon footprint, the answer is yes.

MS LE COUTEUR: Will that be broken down into scope 1, scope 2 and scope 3?

Prof Auty: The answer is that, in the document that goes to the public, that probably would be quite hard to understand. We certainly have a lot of background material done in relation to that, and that will be available. The actual material that goes into the SOE will be a summary of the full ecological footprint, but sitting behind that is that level of work, and it goes into extraordinary detail.

MS LE COUTEUR: That will be publicly available—

Prof Auty: Yes.

MS LEE: if you are determined enough, at any rate?

Prof Auty: Yes.

MS LEE: I am conscious that we are putting a lot of effort into reducing carbon emissions in the ACT, which is good. I am not trying to argue against it, but it is possible that our scope-free emissions may have some lower hanging fruit than some of the fruit that we are trying to pluck in the ACT. We need your information.

Prof Auty: Yes, and we are endeavouring to provide that. With this particular footprint this time, we are very pleased with the fact that it is not just the full, dense mathematical formula; it is a document that can be looked at by members of the general public, and it can be examined by people to learn about what in fact their ecological and carbon footprints are. It gives a really good grounding to work it up further for the next state of the environment report, or do it even earlier. We would have liked to have had the document put together earlier, probably for release rather like an issues paper. It has not been possible to do that.

MS LE COUTEUR: I would have liked it earlier, too. You suggested that individuals would be able to use it for their footprint. Can you tell me a bit more about how this is going to happen?

Prof Auty: Please do not misunderstand me; it will not be like an EPA calculator but it will be informing people about the fact that this is what the footprint is for these sorts of expenditures, these sorts of interests or these sorts of human needs, and that will be possible to be determined by going to the full range of the document. But it is not a personal calculator like the EPA does. We have not been able to do that. If we did want to do that it would cost us a good deal more than the \$29,000.

THE CHAIR: Many people in the ACT, at least around the barbecue, the water cooler or whatever, are talking about, “What can I do to reduce my impact on the environment, and is it even worth doing?” We frequently hear, “China and the US are not taking responsibility, so why should the ACT, let alone an individual?” I am curious to get your views on that, commissioner, and perhaps some practical tips that we could be sharing or indeed embodying ourselves.

Prof Auty: I can understand why people say that. It is deeply disheartening to think that every little step we might take is not going to have an effect. I understand that, and we hear that.

To respond to that I have taken in the office the steps to establish some issues papers, and we now have two issues papers. There is another one coming out overnight. The first one which is available is the one on humanity and sport. That particular issues paper was done for exactly that reason. It is about climate change and sport. I called it *Heat, humanity and the hockey stick: climate change and sport in Canberra*.

The reason that we did this report was to try to encourage people to understand that there were challenges, that there were things they could do. We have had extraordinary cut-through with that. There is a toolkit in it for clubs in the community about what they can do, and we have explored the ways in which we can feed that into

the public through the networks that we built while we were putting the paper together.

Ms Roy was one of the principal movers of this. She heads up the ANU football team, as I understand it, and had some deep social links to all of this. But it covers sport in all manner of guises. It also suggests that there are ways in which we can think through the problems which involve the urban heat island, for instance, and how sport will be a challenge for us. We cannot all play indoors. We need to think about ways to make sure that we can continue to do what we want to, if we do play sport. That is one of the things that we have done.

THE CHAIR: Do you mean things like tennis courts and basketball courts?

Prof Auty: Absolutely. We will leave a hard copy of the report with you, if you like.

THE CHAIR: I would prefer to access it online.

Prof Auty: I thought you might. It is on the website. The other report that is coming out overnight is the one that we put together about the circular economy. There has been lots of interest in this particular forum on the question of waste. We wanted to move from what we think about in terms of waste to what we consider that the circular economy needs to do, in order to deal with that particular problem. In putting that together, Ms Dickson in my office has done the work on that. That involves some careful study of what is going on in Canberra.

In fact we have looked at #CBR. CBR stands for “coffee, beer and riding”. We have looked at what you can do about the circular economy with coffee, coffee grounds, for instance. We have looked at what you can do with the by-products of producing craft beer here in Canberra, with Capital Brewing. We have looked at what you can do about riding and we have looked at the Recyclery for the purposes of that exercise.

MS LE COUTEUR: What type of riding? Is it horse—

Prof Auty: Cycling. I have had horse-riding people say to me, “Why aren’t horses in it?” but it is cycling. We have taken the view that those particular issues papers do two things. They provide us with an opportunity to explore these issues with the public, so we bring them into the conversations, and we have engaged them in the production of the reports. We are saying to them, “We’re interested in solving these problems, just as you might be.” We have also taken the view that they are a vehicle for getting the message into places where we otherwise would not have people thinking about, for instance, climate change.

I vividly remember being at a presentation at La Trobe University in about 2014 about climate change and sport, and everybody thought it was just about the turf that you put on the oval. It is not. It is going to be about scheduling; it is going to be about whether women get bumped for men to play on particular ovals because people think men’s sport is more important, for instance; it is going to be about where you park your car and whether you get a park in the shade; it is going to be about people changing their lifestyles to accommodate the fact that they cannot play or train at particular times of the day; it is going to involve people needing to use indoor sporting facilities if they want to play sport at particular times; and it is going to have an effect

on tourism and the economy because we know that there may well be some particular sporting events that might not be able to proceed because of the heat issues. We have tried to canvass all of those. Have I missed anything, Ms Roy?

Ms Roy: No, that is good.

Prof Auty: All right; I have not missed anything. We have tried to canvass all of those to engage people in that conversation. It has been a conversation with people who play sport in voluntary and amateur leagues, so it is not just taking the view that it is all about the AFL and people who are playing at that elite level. There was previously a report out that dealt with elite sport, which came out of the Climate Institute some years ago, and this report tries to make sure that we are talking about this in a grounded fashion with people whose lives are going to be affected.

The same applies to the circular economy work. Both of these issues papers have the potential to feed into what might ultimately be an investigation growing out of the work that has gone into it with these.

THE CHAIR: You said that the sports one had had extraordinary cut-through. What is extraordinary cut-through? What is the measure that makes you say that?

Ms Roy: We have had contact from a number of stakeholders interstate about presenting the material at climatathons, reproducing the content for their own forums that are coming up. SEA, the particular Victorian organisation which brings sporting personalities together to promote climate change principles, has really grabbed the material and recirculated it. We have also had a lot of interest from the community and different sporting clubs who have reached out to us about implementing the toolkit. That has come through me and my contacts directly, but that is an extension of the office.

Prof Auty: Ms Roy has not yet got to producing the story map about that particular report; she has been too busy working with the state of the environment report team. There will be a story map; she will get to that probably sometime in the next millennium.

THE CHAIR: What is the title of the circular economy issues paper? And who is coming up with these titles?

Prof Auty: I am coming up with the titles, but in relation to this, Kirilly Dickson came up with #CBR. It is *Circular#CBR: Unlocking the potential of a circular economy in the ACT*. With this particular document, we have had a conversation on what is going on in Queensland, because there has been some real interest in the Queensland government about the circular economy. We also know that New South Wales is interested in the circular economy. South Australia produced a report about two years ago that dealt with what the circular economy might mean.

There is theory that precedes the conversation in the report about those matters that I just alluded to. That theory goes to the work that is coming out of the Ellen MacArthur Foundation, for instance, the great think tank about the circular economy generally. In respect of this particular issues paper, it is literally hot off the press.

THE CHAIR: Finally, is there anywhere you think people could be making an easy change to their lifestyle that does not have the attention that it should have or could be the next big thing? Using a reusable coffee cup has gone to people being shamed if they do not have one. Is there anything you think people could be doing that they are not?

Prof Auty: I am a cyclist, and I think we could all be riding bikes. I had my bike stolen the other day, so I have had to get a new one, but I am a cyclist and I think we could all be thinking about active travel.

THE CHAIR: Perhaps someone who was not riding now is.

Prof Auty: That is right. If we think about active travel, it makes us think about green infrastructure and blue infrastructure. We want to think about that. It makes us think about cycling infrastructure; we want to see good cycling infrastructure to encourage people. So it is cyclical in its own way. That is one of the things that I think we need to be doing.

It is also true that even the smallest achievement is still an achievement. As I understand it, something like 430 programs have emerged from the *War on Waste* program, in all sorts of places: in cafes, in creches, in schools all over Australia. I heard the statistic the other night on Phillip Adams's program, and it struck me as a very interesting outcome; I do not think anybody thought that was going to be the outcome from that particular program. So I think it is everything. We are fond of saying in the office, "Everyone can do something; not everybody has to do everything."

Can I just say, because I did not give an overarching observation about things, that the state of the environment report is coming together. There is going to be an executive summary. I was rather hoping that there would be quite an abbreviated report for the minister; that is not possible because of a range of things.

There is going to be a starting chapter on Ngunnawal people, cultural burning and cultural water. That is the first time that that has ever been done in a state of the environment report in Australia. We have been very fortunate to have the Ngunnawal content for that report.

The second chapter is about citizen science and community sustainability efforts. That has been a really interesting chapter, because it is full of the efforts of ACT people. Caitlin has been involved with me in putting that chapter together, and it has been really interesting to see the level of interest people have in making sure that they are in a report like this. Our work on social media and communicating what we do is having an effect on whether people think that what we do is relevant or important.

There is going to be a chapter after that which will deal with the urban forest. It has been interesting to think about what that means to Canberrans. We know that that has been actively engaging people, at least because of the number of complaints we have had through the office about it.

From there we move to data and trends. This is where you will see the graphs, the data and the trends from that data on climate change and human settlements, which includes energy, water, waste, transport, biodiversity, land, water, fire and air.

The last chapter is on policy responses in the ACT. I hoped that that would be a small chapter; it is now up to 60 pages. The report is going to be informative. It is going to be a dense report. We are very glad that we have the recourse to the website that we initially planned we would need.

I will attend to the two points that have been raised with me. I do not have any difficulty with doing that.

THE CHAIR: As you are aware, a proof transcript will be sent to you for comment. If you have any questions on notice—I do not think you do—the committee secretary will be in touch with you.

The committee adjourned at 4.23 pm.