AGRICULTURE AND ENVIRONMENT COMMITTEE

Members present:

Mr JP Kelly MP (Chair)
Mrs J Gilbert MP
Mr R Katter MP
Mr JE Madden MP
Mr LL Millar MP
Mr PT Weir MP

Staff present:

Mr R Hansen (Committee Secretary)
Ms S Stephan (Assistant Committee Secretary)

PUBLIC BRIEFING—EXAMINATION OF THE SAFER WATERWAYS BILL 2017

TRANSCRIPT OF PROCEEDINGS

WEDNESDAY, 6 SEPTEMBER 2017

Brisbane

WEDNESDAY, 6 SEPTEMBER 2017

Committee met at 9.29 am

CHAIR: I declare open this meeting of the Agriculture and Environment Committee. I would like to start by acknowledging the traditional owners of the land on which we are meeting today. My name is Joe Kelly. I am the member for Greenslopes and I am the chair of the committee. With me here today is Mrs Julieanne Gilbert, the member for Mackay; Mr Robbie Katter, the member for Mount Isa; Mr Jim Madden, the member for Ipswich West; and Mr Pat Weir, the deputy chair and member for Condamine. Mr Lachlan Miller, the member for Gregory, will be joining us shortly.

The purpose of this meeting today is to receive a briefing to assist our examination of the Safer Waterways Bill. This bill was referred to the committee by the parliament for consideration and report by 27 November. The bill introduced by Mr Shane Knuth MP, member for Dalrymple, seeks to make a number of changes to how crocodiles are managed in Queensland, including establishing a crocodile authority to be located in Cairns, and providing for the appointment of the authority's director by the Legislative Assembly.

Today we will hear from officers from the Department of Environment and Heritage Protection who have been invited to brief the committee on the department's policies and programs for the management of crocodiles in Queensland. I remind everyone that these proceedings are similar to parliament and are subject to the Legislative Assembly's standing rules and orders. The proceedings are being recorded by Hansard and broadcast live on the parliament's website. Media may be present and will be subject to my direction at all times. The media rules endorsed by the committee are available from committee staff if required. All those present today should note that it is possible you might be filmed or photographed during the proceedings. I would ask everyone to turn off their mobile phones or turn them to silent. Only the committee and invited witnesses may participate in the proceedings. As parliamentary proceedings under the standing orders, any person may be excluded from the hearing at my discretion or by order of the committee.

CLOUSTON, Dr Beth, Director, Conservation and Biodiversity Policy, Department of Environment and Heritage Protection

DELZOPPO, Mr Lindsay, Director, Wildlife Assessment, Strategic Compliance and Northern Operations, Department of Environment and Heritage Protection

CHAIR: Welcome. I believe you have a presentation to kick things off. Will that be your opening statement or do you have further to add to your presentation?

Dr Clouston: No, that will be our opening statement.

CHAIR: We will go through the presentation and then we will invite committee members to ask some questions.

Dr Clouston: Thank you very much for inviting us to come along today. I will do the first half of the presentation and Lindsay will do the second half. Before we start, I would ask your permission to table a document which is a simple information sheet about crocodiles.

CHAIR: There being no objection, leave is granted.

Dr Clouston: Thank you. I will refer to it later, and it is our document that we use. Today we have been asked to talk about the Queensland Crocodile Management Plan, how the crocodile management zones work, the CrocWatch program and the management of problem crocodiles.

First of all, I thought we would start with an international perspective because the international regulation of crocodiles is also important in terms of what we can do in Queensland. This is a simple map showing the number of crocodile species per country. Obviously they do not occur through that whole area of Australia. What I wanted you to understand is that there has been extensive worldwide exploitation of crocodiles during the fifties, sixties and seventies and it resulted in most populations of the species being reduced. As a result, all species of crocodilian are listed on the Convention on International Trade in Endangered Species of Wild Fauna and Flora, also known as CITES, and all

international trade is regulated. Our saltwater crocodiles are listed under appendix 2 of the CITES. This contains species which, although not currently threatened, might become threatened if trade is not strictly regulated.

The way it works is that all exports have to be issued with a CITES export permit and tagged for products that are from sources that are known to be sustainable and do not pose a threat to wild populations. The way we do this in Australia is through the Environment Protection and Biodiversity Conservation Act, which says that we can export these products only if they come from an approved program. The approved program is the wildlife trade management plan. That plan underpins all farming and the export of those products for crocodile farming in Queensland. We achieve compliance with the plan at the moment because we are pretty much a closed cycle industry, or we are receiving eggs from the Northern Territory and they have had their harvesting of eggs approved under the CITES framework. All farming is completely underpinned by the international trade in skins to this lucrative crocodile trade industry. That is important for us to know. If we start to take eggs in a way that is unsustainable, we may not get our wildlife trade management plan approved and we will not be able to export anything at all.

Crocodiles are also protected under our Queensland legislation which recognises the need for conservation and ensures that they are managed sustainably including for farming and for display at wildlife parks and zoos. The conservation plan for crocodiles is a subordinate piece of legislation, and it addresses the conservation issues, human safety, mitigates economic damage caused by crocodiles, and ensures that their use is sustainable. Section 6 of the plan sets out the meaning of a problem crocodile. This is very similar to the definition of a rogue crocodile in the Safer Waterways Bill. In summary, it is situations where the chief executive considers the crocodile is, or is likely to be, a danger to humans and if it has passed over or through a crocodile prevention barrier on land on which aquaculture fisheries resources, stock or a working dog normally live and the chief executive considers the crocodile is likely to become a danger.

Animal welfare is also regulated in Queensland under the Animal Care and Protection Act. However, if enacted and the Safer Waterways Bill prevails over other acts, it is possible that this act would not be adhered to.

I turn to the crocodile arrangements in Queensland. When we started this project in 2016 we had four different crocodile management plans from Cairns to Townsville. We had three crocodile urban management areas, and they were Mackay, Rockhampton and Gladstone. Then we had special arrangements south of Gladstone and then we had arrangements over the rest of Queensland. We undertook a review to see if we could simplify this system. We did targeted consultation, particularly up north, and we also did a public survey. We had over 1,900 responses to that public survey. One of the things we found is that about 50 per cent of people believe that crocodile management should be a balance of conservation and public safety. Additionally, over 30 per cent of respondents said that they would prefer an approach that favours conservation, so over 80 per cent of people favour that approach.

It is quite obvious that not everybody feels that way about crocodiles. I get many letters that testify to that. What the survey did show is that only 15 per cent of respondents supported the widespread removal of crocodiles around urban areas. As a result, we developed the Queensland Crocodile Management Plan. The purpose of this is to outline a consistent approach to crocodile management. What we have done is we have outlined the risk posed by crocodiles in each of the crocodile management zones, how the government will respond to manage crocodiles in each of the zones and, really importantly—and I know Lindsay will talk more about this—the knowledge and behaviours that can help minimise the risk of attack in each management zone—that is, what we can do personally. It is a living document and it will be informed by science. The department is currently undertaking a comprehensive multiyear survey on the crocodile populations. As we get more evidence from that, we can modify the plan as required.

The QCMP applies a level of management response based on the level of public safety. This includes looking at the size of the human population, the size of the crocodile population, whether crocodiles are resident or transitory in an area and the viability of management options in each area.

This is the overall map for Queensland. Using that risk assessment we have assigned every area in the croc country, which is the yellow area, into six zones. They identify the areas where the level of risk is the same and can be managed using those consistent management actions. That might be where we exclude a crocodile using a physical barrier to areas where they are only targeted for removal if they are displaying specific dangerous behaviour. It is worth noting on the map that

crocodiles do extend from Rockhampton to the Northern Territory border. We have got five officers going up the coast to respond, but I note that under the Safer Waterways Bill they will all be residing in Cairns.

These are the management zones. If you look at the back of your sheet you will see what those zones are. I will briefly go through and give you some examples of what each one does. Zone A is the barrier and removal zone. If you are looking at that map, you can see the purple area upstream of the river. This is upstream of Aplins Weir. During the dry season if we find any crocodile in there we will immediately remove it. What we have to understand is that it is very hard to have barriers for crocodiles in the wet season in North Queensland because of the sheer amount of water.

The next one is zone B. This is the brown area in Cairns. This is contracted to the Dawul Wuru Aboriginal Corporation. They have been managing this zone since 2013. Any crocodile that is sighted here is removed. This is suited to those areas in Cairns where there is a large human population and a large crocodile population. There may be an update from the number of crocodiles we have been taking out recently, but the figures I got last week is that this year we removed 12 crocodiles from this zone and last year we removed 51. That means even though we removed 51 last year there are still another 12 this year. It does not really matter how many we remove; there is always that risk that crocodiles will remain.

Zone C is our targeted management zone. Here we are looking at the area down from Innisfail and you can also see there is a tiny purple area around South Johnstone. This is where we have areas that are frequented by large numbers of people because it is near an urban centre or a popular swimming area and it is also frequented by crocodiles. In these areas if we find a crocodile larger than two metres or if the crocodile is displaying dangerous behaviour, they will be targeted for removal. The way we describe a crocodile displaying dangerous behaviour in the QCMP is pretty similar to the definition of a problem crocodile before. It is a crocodile that has attacked, is about to attack or is behaving aggressively towards a person or a crocodile that the chief executive believes due to its location or behaviour is a threat or a potential threat to the safety of human beings. It is quite a wide definition.

Zone D is a targeted beach management zone. It is very similar to zone C except it is for beach zones where crocodiles are normally just passing through. The example here is Four Mile Beach at Port Douglas, a very popular tourist area. Again, if a large crocodile over two metres is found there or it is displaying dangerous behaviour, we will attempt to remove it. It should be noted that it is really hard to catch crocodiles out in the open water and often we will try to target them closer to the estuary.

Zone E is everywhere else. This is our general management zone. It is that whole yellow area. It is areas that are typical habitat for crocodiles, but they are not near a large urban centre and other areas where they are not otherwise zoned. Any crocodile displaying dangerous behaviour will be targeted for removal in these zones. I think people have the impression that we do not do anything in these zones. We do; we are active in those zones. What we are trying to do is reduce the likelihood of a crocodile attack.

Finally, zone F is our atypical zone. South of the Boyne River we do not expect to find a crocodile. If we do, it will be targeted for removal. If we hear of a sighting in the Mary River, we are very active in trying to remove those.

Mr MADDEN: Have we ever had any in that area in recent times?

Dr Clouston: Not in Brisbane but—

Mr MADDEN: That is a big area; south of the Boyne.

Mr Delzoppo: We believe there are a couple of crocodiles resident in the Mary River. They are very, very wary. Whenever they hear a boat, they just go down so they are very hard to get. We put traps and those sorts of things in, but they are very wary animals. We do believe there are two there.

Mr MADDEN: Since this zone was established have you ever caught a crocodile in this area?

Mr Delzoppo: We caught a crocodile a couple of years ago in that area, yes.

Dr Clouston: That is a zone that has always been there but now we are articulating that there is that zone there. That is how the plan works. Now I will hand over to Lindsay to talk about the management.

Mr Delzoppo: My name is Lindsay Delzoppo. I am the director looking after crocodiles in the northern and far northern part of the state. Dr Clouston has already talked about the legislation and subordinate legislation behind how we manage crocodiles in the north, so I will not go into detail on

that. I have a team in the order of 12 to 15 people in North and Far North Queensland who are responsible for managing crocodiles according to the zones mentioned in the Crocodile Management Plan and according to the direction under the conservation plan.

Members may have seen in the media yesterday that we removed a crocodile by lethal force from a swimming hole at Lake Placid in the back of Cairns yesterday. Several efforts had been made to trap the animal. It was too wary to go in the trap, so we ended up shooting it. I have people dealing with crocodiles every day of the week. I have people up in Lakefield National Park as we speak dealing with a crocodile that is approaching people at a campground. We deal with those things day-to-day. We really encourage people to report crocodile sightings and behaviours to us. We investigate all of them and we decide how to respond, according to the zones and according to the behaviour of the animal and its location.

There is a range of methods that we use. If a decision is made that a crocodile needs to be removed—from its behaviour and from where it is in terms of the Crocodile Management Plan and the zones—we use trapping, which is putting a bait in either a floating or a fixed metal trap. The crocodiles come in to try to eat the food and we catch them. We have other methods of catching them. If the area is boat accessible we can harpoon them. That sounds horrendous, but it is really hooking into their skin with a hook, and then we can pull them in and take them ashore that way. Occasionally—probably one in 10 crocodiles that we get reports of—due to location, behaviour, access, urgency or whatever we kill them, as was the case yesterday.

If we take the crocodiles alive they are put in a zoo or farm and into the breeding program. They are not used for leather production. The reason is that the skin on wild animals is so damaged from having fights and so on. It has pockmarks on it. It is not of a quality that would be of any use commercially, so they go into the breeding program.

We have a system called CrocWatch. We take all of the information that is provided to us on the 1300 number and we categorise the animals according to what zone they are in and whether they should be targeted for removal, whether we should notify the local lifeguards and so on. People can look at that. It is updated weekly. It provides data on whether the crocodile was targeted for removal, whether it was removed, what method was used, where it was et cetera. That is a useful database. We get quite a lot of people looking at that and asking questions about that through the media and so on.

Minister Miles set up a CrocWise forum in North Queensland and Far North Queensland. He realised that we could make decisions and give guidance and messages around what we thought was right in communicating with people but without the local knowledge of key stakeholders—councils, surf lifesavers, the tourism sector and the recreational sector—we would not be very good at getting our message across to people. Out of that came the idea of CrocWatch, which is a system whereby people can use their phones and an app to take pictures of the crocodile and send it straight through to us. Like we have for litter and illegal dumping now, people can take photos and send them through to us and we will respond. We are working through that at the moment. The good news is that it will be set up so that people can not only give us the information but also get feedback through the process: 'Yes, we have your notification, thank you. We are dealing with it in this way.' Later on if we remove the animal we will let them know. It will be very useful for providing information to councils and lifesavers about what animals are in their area, how we are dealing with them, whether they have been removed et cetera. That should be uploaded certainly in the next year but we hope in the next six months. That is a work in progress at this stage.

Just as a bit of background, I have been dealing with crocodile management in Far North Queensland since 1995. You can say that there is a range of different approaches taken to crocodiles. There was the East Coast Crocodile Management Plan. There was a Trial Intensive Management Area for Crocodiles which was introduced by the Borbidge government and which I delivered in Cairns and down to Innisfail in 1998 to 2000. Then there was the Intensive Management Area for Crocodiles. As Beth alluded to earlier, there were crocodile management areas and so on introduced under the former government. Now we are managing crocodiles under the Queensland Crocodile Management Plan that was introduced in March this year.

This slide shows some of the signs we use. One of the interesting things in terms of the CrocWise round table established by Minister Miles is that we are getting a lot of feedback about how we can improve the signage. For example, we have a 1300 number that people can call about crocodiles, but we do not have that number on our signs. It is pretty obvious. People let us know that it could be done a lot better and we are working to do that now.

By way of background, that is a flyer from 1997 when I called a forum in Cairns to discuss crocodile management in Cairns and how we would have partnerships with individual local governments about what they do and what we do in terms of crocodile management. This issue is not new; it is an issue we have been addressing for many years.

Last week or the week before a paper was released by a gentleman who works for us, Dr Matt Brien, and his team. It analysed data from crocodile attacks and incidents over the period 1971 to 2017. They looked at each individual case—whether it was fatal or non-fatal—and the circumstances around it. They did not look at crocodile numbers or anything; they looked at the attacks and incidents involving crocodiles in Queensland. You can see that there is a hot spot area for crocodile attacks and incidents between Cooktown and Townsville. There are other places but that is the main area and that is where we expend most of our effort, just by nature of the population there and the crocodiles that are there.

That slide shows you the number of crocodiles removed by year. You can see that in recent years a lot more have been removed. I cannot remember the precise number. I think last calendar year it was 85 and so far this calendar year it is in the order of 58. We are on track to be in the 80s or 90s this calendar year as well. In the order of 30 per cent of the crocodiles moved over all of that time have been removed in the last few years, since 2013. There has been an average of about 20 a year, but in recent years it is in the order of 60. I suspect that over the next three years it will be in the order of 80 to 90 animals per year—that is nearly two a week—that are removed.

One of the issues alluded to by Beth earlier is that taking a crocodile out of an area creates a vacuum in terms of habitat and often another crocodile will move into that area. In the Barron River we have had people since 2017 actively removing every crocodile they can see. As Beth mentioned in her speech earlier, we still get crocodiles there. Indeed, we had one that turned up in Lake Placid that we had to remove. Even with active removal of crocodiles, they are very mobile animals; they can move in the order of 50 or 60 kilometres a day. The fact that you have removed a crocodile from an area does not mean you can assume there will not be any there the following day. That is a challenge for us day by day.

When our team analysed the data they found very interesting information that helps us target our messaging about crocodile safety in North and Far North Queensland. The victims were mainly local people. They were mainly doing things in the water or at the edge of the water—recreation and the like. It was mainly adult men. Early 40s is the age people are generally being attacked. The data shows that far fewer women than men are attacked. That really helps us in working with councils and in communities in Cairns, North Queensland and indeed Central Queensland—how we get the message across to men of that age to behave safely and be aware of crocodiles in that country. We are working on that at the moment.

I think that is a photo of the arm. There is a gentleman who jumped on to a crocodile at Innisfail in the middle of this year. Apparently he was showing off to some young ladies in the area. Anyhow, he got chomped on the arm. Really, it was not that he was being attacked by the crocodile. It is a bit like a dog: if you run into it, it will turn around and nip at you. The crocodile really just nipped at him because he landed on its head almost.

Mrs GILBERT: He did that on purpose?

Mr Delzoppo: He deliberately jumped in. Apparently he had bragged beforehand that he was a local so he could get in the water without being attacked by a crocodile but if the backpackers he was talking to got in the water they would get bitten by a crocodile. That proved to be untrue. That was the same week a person was killed just north of there by a crocodile in the sea. We are really having to focus on communicating with people.

In terms of the way we manage crocodiles in Queensland, we have three key areas. We have the active management of crocodiles in terms of monitoring, getting the numbers and removing them; we have a monitoring program, which I will talk about later; and then we have the crocodile communication messaging to people, how to be as safe as possible in crocodile country.

You can see from the data that there have been more attacks in recent times. This is because, as we said in our submission, in Cairns for example the population has almost doubled. Townsville's population has increased about 40 per cent. There are many more people. People like living on the coasts. People are often living in areas where their yards are close to crocodiles, their kids are walking in the estuaries near crocodiles and those sorts of things. More and more people have boats. That is why we are getting an increase in attacks in recent times.

Last year the government announced that there would be a three-year crocodile monitoring program. One of the issues we have is that people often mention that they think crocodile numbers are exploding. We really cannot say what is happening with numbers because we do not have the data. The government has given us money to do a three-year survey of crocodile numbers in terms of density across the entire range—from the Northern Territory border all the way down to Gladstone and so on. That is underway. The first year is almost complete. We have another couple of years to go.

In terms of the data, there is very good crocodile density data from the mid to late 1980s. Some other work was done in around 2000 or 2003. Since then there has not been any monitoring, so I cannot look you in the eye and say whether numbers are increasing or decreasing. From our recent data, for example, we found that, compared to previous data, the numbers around Russell Heads and Russell-Mulgrave seem to be higher than they were in the past. That is not associated with human population increases because there are only a few huts in that part of the world but there seem to be more crocodiles there. In other places the numbers do not appear to have changed much at all. We will not know for sure and be able to give you valid information about trends, populations and crocodile sizes for two or three years yet.

We have people very highly trained to go and do spotting. We go spotting at night. We usually try to go on nights with a new moon so that it is really dark, as spotlighting is more effective in seeing the animals. Boats go at around six knots. We have someone spotting, someone navigating the boat and someone taking down the data. They will probably go and do three or four hours along a river or waterway in the order of six knots and come back and record the information. We are compiling that now.

In the area south of the Fitzroy we do not undertake that same sort of intense effort. We just go along and see whether we can see any animals. One of the tendencies with crocodiles is that in the colder weather—they are cold blooded animals—they need to get their temperature up. They are more likely to be basking on the rocks or on the banks of the river. That makes it much easier for us to see them. Recently we have done a series of crocodile surveys by helicopter and have seen quite a few that perhaps we would not have seen otherwise. Incidentally, that is the reason a crocodile in Lake Placid was on the rocks—because it was cold and it needed to get its temperature up so its body could metabolise things. That is really handy for us in terms of spotting crocodiles.

I have talked about the fact that it is vessel based. One of the challenges is that we do not see all of the crocodiles, so there is a whole range of work looking at assessments that have been done elsewhere and you can then interpolate how many crocodiles are in an area based on what you see because studies have been done elsewhere in terms of tracking animals, tagging them and those sorts of things. If we see 20, you might be able to infer from previous data that there may be 20 in that particular area. That is part of how we compile the information. It is not just raw data; it needs processing in terms of previous studies and what those numbers mean. We are very lucky to have associated with this Dr Laurie Taplin, who conducted the surveys for the then department of parks and wildlife service in the mid-eighties, so he is guiding us in a way to make sure that we can compare our data with his from all those years ago to make sure it is really valid in terms of trends and numbers.

What are we trying to get from the program? We are trying to get the current distribution and abundance of saltwater crocodiles throughout their range. In some areas we expect numbers would be going down while in other areas they will be going up. We want to get the changes over time in different locations—that is, in Cairns compared to Townsville or compared to Mackay—and really what we want out of that is to get information about crocodiles, their numbers, their sizes and so on in different areas because that will help guide future decisions about crocodile management across the range by the government.

What will the next version of the Crocodile Management Plan have? Indeed, it may be that we get data that we can reflect on in terms of the status of crocodiles that are now listed as vulnerable in Queensland. Data might come out of our studies that show that that does not need to be the case. We do not know yet. It will also guide us in that we are removing in the order of 80 crocodiles a year. Is that enough? Should it be more? Should it be more in certain areas? We do not know that, but we will have more information on that at the end of the studies.

This slide shows the number of crocodile sightings we get. I am guessing we get about one in 10, so we got 435 crocodile reports this year. That is in the order of two a day and we ended up removing 58 so far. That just shows the trends. We hope to get more and more sighting reports because that really helps us manage crocodiles effectively, so we really encourage people to let us know. Even if they have seen a crocodile before, we want them to tell us again because it helps us make decisions about whether it should be removed or left alone.

Mr MADDEN: Is it possible that that data might be skewed by the fact that you are now encouraging people to report more?

Mr Delzoppo: We just do not know that. Anecdotally we hear that people do report more. Certainly when we bring in this CrocWatch app, which is where you can use your phone and let us know, we expect a big spike. We think people will do that because it is rewarding: they get feedback about it, they can tell their friends and they can pass it on. We expect more and more sightings, even though there may not be any greater number of animals in particular areas.

This slide shows you year by date where the crocodiles have been removed. You can see in the Cairns Regional Council zone 18 have been removed so far this year whereas in Yarrabah there has been one. I will table those numbers for you. Obviously you can see that in Cassowary Coast and Cairns there are many more removals required than in areas to the south. That is consistent with that hotspot zone between Townsville and Cooktown.

We do put quite a lot of effort into communicating with people about safety. This slide shows a copy of a crocodile map, which you might have seen. Minister Miles tabled it during the estimates hearings earlier this year. I took it along to the Far North Queensland Regional Organisation of Councils' meeting with the mayors. They were all very impressed with that as a useful tool. We have given an undertaking that we will provide each council with one of those so that they can use it for educational purposes with staff, schools and those sorts of things.

A key challenge for us is getting the message across to people about behaving safely in crocodile country and not presuming that because you cannot see a crocodile there is nothing there. In the past our messaging has been very much, 'Don't do this, don't do that,' and so on. The feedback we have got is that people do not like being told not to do things, so we are now working to refine our messaging with the CrocWise round table about making people think a bit more—not 'don't do things' but 'if you do this, think about this sort of thing'—and just making them more aware, rather than just, 'Don't do anything at all.' Thank you very much. That is the end.

CHAIR: Thank you. Your program is based on the assessment and the consideration of the CEO determining that a croc may be a danger or likely to become a danger. How long does that assessment take?

Mr Delzoppo: It is usually the same day. For example with the one in Lakefield yesterday, the assessment was done and I gave a direction within five minutes. It depends on whether or not it needs someone to go out and do an assessment. If a sighting is a bit ambiguous, we will send someone out to do a site assessment. They will look to see if there is an animal there, so that might take a day, depending on the travel. We need someone to go and have a look and they will report back to me whether they saw an animal and what they recommend in terms of removing it, leaving it or whatever. It is not uncommon for us to go out to a site and not see it. It may be that we will go two or three times over the course of the next week just in case and not see it, so that takes a week to effectively decide that is not a problem crocodile. Other times, just from the behaviour and what we hear about it, we will decide within five minutes that it has to go.

CHAIR: Weekend decisions can be made?

Mr Delzoppo: Yes. Thank you for asking that. We have a 24-hour number. It is not like the ambulance: we do not have people ready to zoom out at two in the morning, but people can call at any time and it will go through our 1300 number to a person who is on duty and they will deal with it on weekends as well. If need be, we will call people out on the weekends to go and deal with an animal, which we do quite commonly.

CHAIR: You mentioned that one of the purposes of your survey is to draw some sort of a correlation between the number of crocodiles that are being removed and the safety of people in that area. Am I to understand that under your current Crocodile Management Plan you have a capacity to increase or decrease the number of crocodiles being taken as required?

Mr Delzoppo: I guess it just turns out in terms of the crocodile zoning, the reports we get and our assessments. If we get more reports and a particular crocodile is in an area behaving aggressively more than previously, the number of removals will increase.

CHAIR: Is it anticipated that with changes related to increasing temperatures an atypical zone may become a typical zone?

Mr Delzoppo: That is an excellent question. We really do not know, but we are hoping that through the study we are doing over the next three years we will have more information on that. We just do not have any data to support that, but it is a proposition that is put to us quite a bit. We will know in a couple of years.

Mr WEIR: You stated that crocodiles two metres and over are removed. Why two metres? How did you arrive at that?

Mr Delzoppo: We have done analysis on crocodile attacks—from small hatchlings to four metres and so on. All of the data shows that if you are attacked by a crocodile four metres or greater in length—I cannot remember the exact numbers—there is 98 per cent chance you will be killed. Two metres is the rough number above which a crocodile attack means risk of a significant injury to a human. Smaller than that, it is a bit like being bitten by a dog: the chance of it causing significant injury or death is low. It is just a cut-off number we use as a management guide. It is a guidance. We might see one that is 1½ metres and decide that it has to go, depending on the circumstances. It is just a rule of thumb.

Mr WEIR: You talked about your methods of removal and you had 'otherwise removed'. What does that mean?

Mr Delzoppo: 'Otherwise removed' might mean that we shoot it, harpoon it and so on. Occasionally, like with the small one in Cairns last week, our people put a noose around its nose and remove it that way, by pulling it to shore.

Mrs GILBERT: I refer to the area from Cooktown down, including Cairns, where you have that circle showing where there have been removals and attacks. Just south of that is the Mackay, Rockhampton and Bundaberg region. I refer to the slide on page 12. There seems to have been more sightings in those areas. What sorts of education programs do you have ready for those areas? As the stingers started moving in—the box jellyfish—there were programs rolled out, and you do not hear of people getting stung and dying now because people know what behaviours to do. What sort of education program are you planning?

Mr Delzoppo: Thank you for asking that question. I cannot remember the precise numbers, but we did visits to schools. We do campaigns at schools about crocodile awareness because, as you know, kids are very good at getting messages about safety and a range of issues across to families. In the order of over 3,000 schoolchildren in North Queensland and Far North Queensland were given education programs and information from our people about crocodiles.

We work closely with the surf-lifesaving clubs in North Queensland and Far North Queensland to provide information about crocodiles. Indeed, in the most recent printing of the brochure in North Queensland we have information about crocodiles. We have arrangements with surf-lifesavers whereby they will let us know quickly about a crocodile and we will deal with it and then we will inform them about how we managed the crocodile. For example, in the last few weeks we have dealt with a couple of sightings at Four Mile Beach in Port Douglas. Generally speaking, if there is a sighting of a crocodile we will put out temporary warning signs saying 'there has been a recent sighting in this area'. We leave them in place for seven days. If there are no further sightings we will remove them. We will go and talk to people around the general area—at the shop or at the boat ramp—saying that there has been a sighting. We know that we can do more on that, and that is why we are putting more effort into our CrocWise communication information, particularly targeting those people at risk.

Mrs GILBERT: Do you need more resources in that area?

Mr Delzoppo: I am pleased to say that I genuinely believe we have the resources we need to do the job. We got an extra 12 staff in the budget round before last and we have sufficient people to go and do that work.

Mrs GILBERT: Thank you.

Mr KATTER: You said that reports are made and acted upon. We heard in one of the hearings that one of the managers of the Daintree resort dialled in about a crocodile that was around the beach yet it ended up that a tourist was eaten there eight weeks later. We have been told that everything is reported and taken care of straightaway.

Mr Delzoppo: We did get a report—

Mr KATTER: It is to the contrary there.

Mr Delzoppo: No, I would just like to clarify that if I may. We did receive a crocodile report from a resort person well north of the area—Cowley Beach I think it was, where the person was taken. It was swimming in the sea. The sea is not a zone that crocodiles hang around much in. It is sort of like your rogue going between nestings, where they spend most of their time. We had a report. As I recall, we investigated it. We did not see a crocodile. It was not in that particular area. The crocodile that took that lady was resident in that estuary there. There is a tourist operator who does trips daily or twice daily in that creek who was fully aware that that crocodile was there. It is not one that has been

swimming around all over the place; it was actually physically living in that area, and that is how we got it. That crocodile was so familiar with that tourist boat that, as I recall, we used their boat so we could get close to it. There is no connection that we can see to say that we—

Mr KATTER: Sure. I really get frustrated with the issue. It came up with the flying foxes as well out in the public—and this is not necessarily reflecting on your department or anything. You said that you pull some out. I do not want to waste my questions on removal, but when you pull some out some go in. I totally accept that. I guess what the bill is trying to address is that, in terms of the numbers out there, there is a saturation. As someone who lives in the gulf, I am absolutely convinced that they are pushing into areas because a critical mass keeps building and we are waiting for three years on this number but then that forces them to move.

If you pull some out, yes, that is the whole point—that is, you manage numbers. As we all know, everyone abhors the idea of killing anything these days, so it is a problem that any government or any department has to deal with where trying to deal with this effectively sometimes is an issue. I am not sure how to frame my question, but you are talking about them pouring back in. I would absolutely totally agree, but that is the whole point—that is, there is a saturation of numbers and they are coming into the Gregory River. In areas where no-one has ever seen them they are coming up there now. That really annoys me because that is where I have been swimming with family and friends.

Mr Delzoppo: I do not recall any recent sighting reports of crocodiles behaving badly in the Burdekin and the Gregory. If we received a report of a crocodile in an area that is close to humans and it was behaving in a way that was aggressive, we would remove it.

Mr KATTER: That has given a bit of form around my question. It is not about them behaving badly; it is the fact that they are where they were not before. That is an issue. We have not mentioned Karumba and Normanton much. They are saying that it is just a matter of time before something happens. People are complacent and the numbers are building up to ridiculous levels, from what people are saying. The rangers at Burketown are saying that they are up there now. I think there are people illegally doing their own controls to try to manage this, which we are oblivious to—not necessarily you. I think there is a lot of ignorance around the whole question of numbers.

Mr Delzoppo: Sure. We are ignorant too. We will not know what the numbers are until we do the survey. Once we have the information we will make it available.

Mr KATTER: How would you respond to those risks when talking to the Carpentaria shire and the Burke shire that are saying it is just a matter of time before we have someone taken? To me that is an extreme public risk that is clearly not being taken care of right now. The risk exists now.

Mr Delzoppo: We really value working with local government. They are the key stakeholder that we deal with in terms of communication and getting an idea of the crocodiles in the area and the risk that is posed. We have arrangements with some councils that they are trained to remove crocodiles or they put out warning signs for us. They certainly let us know when there is a problem crocodile in their area. We really value that relationship. I do not recall any recent reports from those councils of problem crocodiles in their areas. If we did receive them we would deal with them on their merits in a very timely way.

Mr KATTER: I believe the genesis of this bill is the public saying, 'We used to swim in Lake Placid, but we don't do that anymore. We used to swim in these parts of the Gregory and we can't do it anymore.' There must be a trigger for government departments or someone to say that this is now a public issue. Whether it is urban encroachment or whatever, which I would argue it is not in a lot of places, especially the gulf, where is the point at which we say, 'This is not working. Perhaps we need to do something else'?

Mr Delzoppo: That is the reason the government rewrote the Crocodile Management Plan and released it in March this year. That set the rules of engagement for us in dealing with crocodiles—where we remove them, at what size we remove them et cetera. That was based on discussions with communities and councils and the survey work that was alluded to. Feedback from councils and the community is how the government came about establishing that plan. We will put that plan in place. We deliver that now. We will monitor crocodile numbers over the next few years and then we will give information to the government about trends and numbers and perhaps suggestions about any changes that might be needed to the Crocodile Management Plan. There will probably be a Crocodile Management Plan mark 2.

Mr MADDEN: Thank you for briefing us on this important bill. With rogue crocodiles—I will call them rogue; I mean crocodiles about which you have to take action—how does the department determine whether it is appropriate to kill the crocodile or whether it is appropriate to send it to another place? How do you determine whether that place should be a crocodile farm or a zoo?

Mr Delzoppo: Do you want to take the policy side of it first?

Dr Clouston: The one about the problem crocodiles?

Mr MADDEN: How do you determine to take action and remove this crocodile or extinguish the crocodile?

Dr Clouston: A lot of it is at the discretion of the chief executive, that the crocodile is behaving dangerously or is potentially behaving dangerously. I suppose in a way that does come back to you, Lindsay.

Mr Delzoppo: I am the person delegated by the chief executive to make those decisions for a large part of the state. As I said before, in the order of one in 10 animals is shot. The conservation plan states that where possible the crocodiles are put into a crocodile farm or zoo. There are times when, for whatever reason, that is not possible or we cannot capture the animal safely.

For example, the crocodile that killed the person near Russell Heads was a very aggressive animal and it was big. We just could not catch it so we made the decision to shoot it. The one yesterday in Lake Placid we could not get near. It was a very timid animal. It was like an urban animal that was very wary of humans. There is no way we could catch it. At this time of the year crocodiles are less hungry so it was not going to go into a trap, so we had no choice.

In terms of remote areas like Cape York Peninsula, to take an animal somewhere else in the back of a trailer is cruel and often they die. We try not to do that because it is inhumane to the animals. We talk to the traditional owners and often they prefer, if the animal is being removed, that the animal stays in country. They would rather that it be dead and stay in country. We killed a couple in Weipa two or three weeks ago. It was the wish of the traditional owner that those animals stay in their country.

Mr MADDEN: Where you are going to relocate it alive, how do you determine where you take it to?

Mr Delzoppo: That is a really good question. We have a round robin system. We have something like eight or nine crocodile farms in Queensland. For those that put their hands up and say, 'We are happy to take crocodiles from you,' we use a round robin system. Each time we get a crocodile we ring around and see whose turn it is next.

Mr MADDEN: Is Australia Zoo in that round robin?

Mr Delzoppo: No, not that I know of. I do not recall us giving any to them in recent times.

Mr MADDEN: They have crocodiles.

Mr Delzoppo: They do, but they do not farm them. They have a few on show. Most people have a throughput of hundreds of crocodiles for commercial purposes.

Mr MADDEN: I want to talk about egg harvesting. Dr Clouston, I think you used the phrase that egg harvesting in the Northern Territory was in accordance with a CITES agreement. That being the case, why do we not have egg harvesting in Queensland?

Dr Clouston: We are investigating that quite actively at the moment. Basically, we have to show that there is no detriment to the population. That is the situation under the CITES convention. The way they have done that in the Northern Territory is to have an ongoing monitoring program. Bit by bit they have been able to take more eggs. I think it is 900 now. I am not quite sure.

Mr MADDEN: Is that 900 a year or in total?

Dr Clouston: A year, yes. By doing the monitoring program they can show that they have not had an impact on the population. To do the same thing in Queensland, first of all we are looking at Pormpuraaw because they are very keen on that and there is a crocodile farm up there. Some scientists have done some experiments. We are just analysing that data to try to work out what we think is a sustainable take of eggs. We are working with the farm to make sure that will be an economic proposition for them. Then we would have to go to the crocodile specialist group, I think they are called, under the IUCN—we will set up a monitoring program; we have a specialist scientist on crocodiles working with us on that—and say, 'Would you accept that that would be non-detrimental?' If they say yes then we would have to amend a couple of pieces of our legislation.

Mr MADDEN: My next question is: how is that achieved?

Dr Clouston: We would have to amend the nature conservation plan, because of the way it is set up in the wildlife management regulation, to allow harvesting. We would have to set up a harvest period and issue the harvesting licence. At the moment, what we are working towards is trying to go through all those steps, hopefully successfully, and maybe set up a pilot for three years—firstly just in one area—and see how that goes.

Mr MADDEN: You mentioned a couple of time frames. This is 2017, so when could the trial start?

Dr Clouston: Harvesting normally happens between December and March, so it is not going to happen this year. We are still trying to get the science together and get that—

Mr MADDEN: It could happen in 2018?

Dr Clouston: Yes. That is what we are aiming for. As you know, it does take quite a while to get those regulations changed. We would also have to amend our wildlife trade management plan. The Australian government makes us take six months to assess the plan. We were actually updating it this year. It is currently out for public consultation. We would have to amend that. If we had that support I think that would be quite acceptable for the IUCN, but we would still have to go through that process. It does take a while.

Mr MADDEN: That is good news. Thank you very much for that. You actually anticipated some of my questions.

Dr Clouston: I have been working on it actively as another project.

Mr MILLAR: I am looking at the statistics that you showed on the slide. Do we have a population boom with crocodiles in North Queensland?

Mr Delzoppo: We do not have recent data out for crocodile numbers.

Mr MILLAR: Looking at the statistics—

Mr Delzoppo: We have no evidence to say either way. I did mention earlier, just to pick a stream, that I lived for many years in Gordonvale, where there is the Russell and Mulgrave rivers. The numbers we did in April or May this year indicate that there are more crocodiles there now than there were 10 years ago. In other areas there is little difference. We have no evidence of a boom, in particular areas or across-the-board. We will know much more after the end of our survey, which will take three years.

Mr MILLAR: When will that survey be completed?

Mr Delzoppo: In three years.

Mr MILLAR: From today, or has it already been going for a year?

Mr Delzoppo: It started in April this year. It has another couple of years to go.

Mr MILLAR: Looking at the statistics, obviously there is an issue. I am only looking at raw numbers and I do not have the background in crocodiles that you have. I come from Gregory and one of the big issues that we have out there is kangaroos. I would love to talk to you about that but I will not today. You see an increase so obviously something has happened. You do not know if there is—

Mr Delzoppo: I am glad you mentioned kangaroos. We have an active monitoring program, so we do know about kangaroos. We know the numbers, we know the trends and we know what quota is acceptable in terms of damaging the population. We do not have that information on crocodiles because it has not been done for several years. That is why the government allocated us some money a year ago. The program is well underway. It is a well-constructed program in consultation with experts from the IUCN. It has been tested as being very statistically valid. It will give us good information. I will be able to answer your questions in three years time.

Mr MILLAR: That is good. I would love to have those answers now, but obviously you have to finish the work.

Mrs GILBERT: In your presentation you briefly brushed over the fact that you have officers up the coast. In the bill it says that the officers will be based in Cairns. Can you outline for us what benefit or detriment that may be to the programs you have in place now?

Mr Delzoppo: To have them all in Cairns?

Mrs GILBERT: Yes.

Mr Delzoppo: We would prefer not to have them all in Cairns. We admit that Cairns is a hotspot. I cannot remember how many people we have in Cairns. It might be six to eight. We have people in Innisfail. We have people in Townsville. Our preference is to have them spread along the

coast where the crocodiles are, because that means we can respond quickly to a crocodile incident should it occur. We would like to be as close as possible. It is handy having people in Cairns because they can service areas north of Cairns and in Cape York Peninsula. You want a significant portion of your staff in Cairns, but we would not want them all in Cairns.

Mrs GILBERT: You already have a significant proportion of your staff based in Cairns?

Mr Delzoppo: A significant proportion are based in Cairns and a lesser portion are in Townsville, some in Mackay and some in Rockhampton.

CHAIR: How does your Crocodile Management Plan gel with the plan or the approach in the Northern Territory?

Mr Delzoppo: It is pretty consistent. We do quite a lot of work benchmarking ourselves with the Territory. The Territory has a program whereby it removes problem crocodiles from particular areas. We have that around Cairns as well. It is not dissimilar.

CHAIR: You mentioned in your presentation that currently one in 10 animals are killed after they have been taken. Is that shot in the act of taking or is that euthanased after the animal has been caught—or is it a combination of the two?

Mr Delzoppo: It is usually shot in the taking of the animal and removing it. We do not catch it and then shoot it on the shore.

CHAIR: Would there then be an additional number that are euthanased post capture?

Mr Delzoppo: No.

CHAIR: What method is used for euthanasia if an animal is caught and you cannot distribute it to a zoo or whatever? What is the method?

Mr Delzoppo: Generally shooting them.

CHAIR: As part of your survey you said there is a review of the numbers taken. Would we have to euthanase more animals if we dramatically increased the number of crocodiles that we are taking?

Mr Delzoppo: I believe so, because my rule of thumb is one in 10. If we take double the number of crocodiles in the state we would double the number that end up being euthanased.

CHAIR: With regard to wildlife monitoring, I imagine that is a fairly established scientific approach amongst biologists. I imagine it would take dedicated resources to achieve that in any population of any animal. Is that fair to say?

Mr Delzoppo: Yes, it is. The key to it is having a consistent approach. We have a relatively small number of people who are highly trained. We train them, believe it or not, with mock crocodile heads of various sizes. They have to make a judgement on seeing half a crocodile head in the water what size that animal is, going past the sixth knot. We train people rigorously and pick the best people who can do that work. Yes, we believe it is very consistent. We believe it is consistent with what was done back in the 1980s. We had Laurie Taplin, the expert in those days, guiding how we did it. We have a small number of people, but they are very good at their work and they get consistent results because they are trained.

CHAIR: Are there any animals in Queensland that we consistently monitor all the time for population numbers?

Mr Delzoppo: I am not sure I would say 'all the time'. For example, there is a monitoring program for flying foxes. We are part of the National Flying-Fox Monitoring Program. We monitor numbers in flying fox roosts quarterly. In terms of macropods—kangaroos—there is an annual program. I think it is for a period of a couple of weeks in the air when the numbers are monitored and reported to us. In terms of water birds, they are monitored in annual surveys from planes.

CHAIR: These are the obligations under international treaties?

Mr Delzoppo: No. It is being done by academics from the University of Queensland.

Dr Clouston: And, I think, New South Wales—Richard Kingsford from New South Wales.

Mr Delzoppo: He transits up and down the east coast. We pay for our bit in Queensland. That is done annually.

CHAIR: What about brown snakes?

Mr Delzoppo: No. There is no monitoring that we do of that resource. There are academics who do studies from time to time, but there is no state based monitoring of snakes.

CHAIR: A lot of it is not driven by the department, per se. It comes down to the interests of academics and the vagaries of them getting funding and universities deciding to authorise that sort of research; is that correct?

Mr Delzoppo: Yes, so particular species get a more intensive effort—for example crocodiles, because there is a commercial aspect and a safety aspect, and koalas. There is a bit of work done on cassowaries. Cassowaries have only been monitored about once every 10 years.

Mr WEIR: You were talking about the data that you have. Obviously there is a lot of work going into that. Crocodiles are listed as vulnerable. Does that get reviewed? Is it all over or is it localised—vulnerable or not vulnerable? How do they get that status?

Dr Clouston: The way that we assess the status of animals is that we have Species Technical Committee. They call for nominations. They meet at least twice a year. For a whole range of species people can nominate that they think it should either go down a classification or go up. The committee meets. Queensland has just signed up to the national methodology for this. We are calling it the common assessment method. Basically, again, it is in line with the IUCN criteria of how we assess species. Crocodiles were done long before this, let me say. There is consistent criteria we will all have to use. The assessment will be done at the national level. Basically, if it is assessed at a particular status—say, endangered—by the Commonwealth government and that animal is in Queensland, we should have it at the same status. There is quite a lot of misalignment at the moment, but that is what we are going for. When they go back to do that assessment, if someone nominates and says, 'No, we think there is more there,' we have the evidence and we have the survey, the technical committee will look at it using the IUCN criteria.

Mr WEIR: Crocodiles obviously reside in a certain area of the country. That is specific to a boundary area?

Dr Clouston: No. They would look at the entire population.

Mr WEIR: You talked about a survey with 1,900 respondents. Where did the respondents to that survey come from?

Dr Clouston: It was on the Get Involved website.

Mr WEIR: Were they from all over Australia?

Dr Clouston: They were from mostly Queensland. We had one international one, I think. We did ask people for some of their demographic details. We did compare them to what we would expect. It did show it was a fairly good representation of the population in Queensland in terms of age and where they lived. Those respondents were from across Queensland.

Mr WEIR: There was no breakdown of North Queensland, south Queensland—

Dr Clouston: Yes, there is actually. That report is available on our website.

CHAIR: Can you please take that on notice to supply the breakdown of the statistics of that survey?

Dr Clouston: Yes, sure.

Mr KATTER: I cannot get away from the fact that we are waiting for a three-year survey, but there is a lot of advocacy and there are a lot of sensitivities around managing the population of crocodiles. There needs to be some advocacy for the rights we have to our waterways. One of the telling statistics, without doing a three-year count, is that at Innisfail the rowing club, the surf-lifesaving club and the waterski club cannot get members and at Port Douglas they now recommend you do not swim in the water because it is too risky. Isn't that flashing red lights and ringing alarms bells? I am sure you are doing a great job of getting in there and removing crocodiles. I am not trying to criticise that part of it. My assertion is that these numbers have built up everywhere and they do move. You are just fighting a rising tide here with this removal policy.

Without waiting three years for a count, there must be a trigger for a change when all the business owners at Port Douglas are saying, 'We feel we are at great risk here.' You have the surf-lifesaving club and the rowing boat clubs closing down. You have Rob Katter, who swims at the Gregory, saying, 'I am not sure if I can camp up there now because of the risk. I do not know whether it is a rogue one or aggressive, but I am not going to take my chances with kids swimming in the water.' Isn't there some responsibility at your end to say, 'Anecdotally it does seem like there is a build-up of them which is forcing them into these areas and it is creating a public health risk'? I am sure you are doing the best you can, but I think the problem transcends just managing what is there—the ones that we do manage to pick up and identify as an issue.

Mr Delzoppo: Going back to the waterskiing club at Innisfail, when I was in Cairns that club was operating. As I understand, it was established well before the hunting of crocodiles was ceased, when the numbers in Innisfail were very low and the crocodiles that were present were very gun-shy so they were not a problem. They are not so gun-shy now because they are not being shot at. There are probably more there now than there was back then—I would expect that—and they are less shy of people now because they are not being shot at. Yes, I would not go waterskiing there either. I do not expect anyone would. It is just a change in times from when crocodiles were hunted vigorously to now that they are not hunted.

The crocodile plan that was released recently factors in all of those issues about risk and population and what people are doing. That is why you have different zones and different approaches in different areas. We have thought about the crocodile numbers and behaviours and exposures in setting up the Crocodile Management Plan that the government approved recently.

Mr KATTER: When you remove the crocodiles, do 100 per cent go to parks or are some still placed in other areas?

Dr Clouston: They all go to farms.

Mr Delzoppo: Any crocodile that we remove, if it is not killed, goes to a crocodile farm or a zoo. We do not release them. We did some work a few decades ago where we took the crocodiles a long way away and they would return. It is just not viable to do that.

Mr KATTER: That is good to hear.

Mr WEIR: You said earlier that there was a crocodile in the Port Douglas area that was in the ocean, but there was a lady taken by a large crocodile that was resident in the area. Had that crocodile ever been identified as dangerous?

Mr Delzoppo: No. It was in an estuary. People saw it daily on the tours there. It was not dangerous. It was in a national park. It was in its habitat. It was not being aggressive. We had no reports of it behaving badly. Unfortunately, she took to swimming in the mouth of the estuary at eight o'clock or 10 o'clock at night. That is a prime time to not be in that area.

Dr Clouston: Crocodiles wait for us to make mistakes.

Mr Delzoppo: We have since put a lot of effort into communicating with people who stay in the Daintree: do not swim in those estuaries.

CHAIR: Thank you. That concludes the departmental briefing. I thank Dr Clouston and Mr Delzoppo for coming along today. We really appreciate your time. I thank our Hansard reporters. A transcript of these proceedings will be available on the committee's parliamentary web page as soon as possible. There was one question taken on notice. I would ask that the response be provided by Wednesday, 13 September.

I remind people here today and people at home who might be watching that we will be holding public hearings for our inquiry into the Safer Waterways Bill in Brisbane on 11 October and in Cairns on 30 October. I believe we would seek to involve the department, to have more specific questions in relation to the bill rather than your current management plans. These hearings will be open to the public. The Brisbane hearings will also be broadcast via the parliament's website.

On behalf of the committee, I also take this opportunity, being the first opportunity that we have had on the record, to congratulate the member for Mount Isa on his recent nuptials. I now declare this public briefing for the committee's inquiry into the Safer Waterways Bill 2017 closed.

Committee adjourned at 10.40 am