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 HEARING—EXAMINATION OF THE SAFER WATERWAYS BILL 2017

TRANSCRIPT OF PROCEEDINGS

WEDNESDAY, 11 OCTOBER 2017

Brisbane

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Committee met at 11.00 am

CHAIR: Good morning everybody. 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 Agriculture and Environment Committee. I have here with me Mr Pat Weir, the member for Condamine, who is the deputy chair of the committee; Mrs Julieanne Gilbert, the member for Mackay; Mr Robbie Katter, the member for Mount Isa; Mr Lachlan Millar, the member for Gregory; and Mr Jim Madden, the member for Ipswich West.

The purpose of this hearing today is to hear evidence from stakeholders who have made submissions as part of the committee's examination of the Safer Waterways Bill. The committee is required to report on the Safer Waterways Bill by 27 November 2017. The committee has received seven submissions on the bill, all of which are available on the committee's website. Today, we will hear from representatives from Surf Life Saving Queensland, Koorana Crocodile Farm, Australia Zoo, and the Department of Environment and Heritage Protection.

I remind everyone that these proceedings today are similar to the 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 discretion at all times. The media rules endorsed by the committee are available from the committee staff if required. All of those present today should note that it is possible that they might be filmed or photographed during these proceedings. I ask everyone to turn their mobile phones to silent or turn them off.

Only the committee and invited witnesses may participate in the proceedings. As this committee is similar to parliamentary proceedings, under the standing orders any person may be excluded from the hearings at my discretion or at the order of the committee.

HILL, Mr George ESM, Chief Operating Officer, Surf Life Saving Queensland

CHAIR: I would now like to welcome Mr George Hill, who is the Chief Operating Officer from Surf Life Saving Queensland. Mr Hill, would you like to make a brief opening statement? After that, we will then go to questions from the committee.

Mr Hill: Thank you, chair, and thank you very much for the opportunity. My representation of surf lifesaving comes mainly from the background of Surf Life Saving Queensland being responsible for the safety of the public of Queensland, visitors to Queensland and international tourists on our beaches and in waterways. Over those years that we have been working on making beaches safer for Queensland, we have certainly come across not only dangerous rips in the south but marine animals that we have to live with and manage. That is certainly from the box jelly—the deadliest creature in our waters—to sharks and now crocodiles. Why I say 'now crocodiles' is that, in my role as chief operating officer for the past 18 years and working with my staff—just for clarity for the committee, a lifesaver is a volunteer; a lifeguard is paid fee for service—both of those levels have identified a trend and seen larger crocodiles in what we call public space: waterways where people can frequent. When I say 'larger crocodiles' over the past five years the trend has certainly been to see three-metre to four-metre crocodiles in public spaces such as Port Douglas Beach, Four Mile Beach—there was one there that we closed the beach for—Palm Cove, Trinity Beach, Forrest Beach at Ingham and the Strand at Townsville. Obviously, we need to protect our environment but we certainly have to protect the public and future surf lifesavers and people who frequent and recreate in our waters.

The other reason for our submission is that we have seen a growing trend and a higher risk to the community. Although we do not want to see crocodiles harmed in any way, we certainly support the removal of any crocodile that is in a public space that could be a risk to anyone in the community, whether it is from a bite or a fatal attack. An interesting statistic that we looked at is that, in the past 10 years, there have been 14 crocodile attacks in Queensland and five of those were fatal. In relation to sharks in Queensland, we have had 23 attacks, but only two of them were fatal. So in 35 per cent of cases, once a person is bitten by a crocodile or attacked, there is a higher chance of a fatality.

The other challenge for surf lifesaving is that I know, in working closely with parks and wildlife officers in all regions—we have a great relationship and certainly support and deliver community education to schools and all the community—one thing that is a challenge for us is that crocodiles travel in the ocean from estuary to estuary and they are very difficult to catch in that environment. In Queensland, we do not have a protection mechanism like the shark protection system that we have. That means that, if we cannot catch them, there has been a higher risk of attack in the ocean, because we do not know that the crocodile is there or we are not able to remove it. Whilst our surf lifesavers and lifeguards have kept the community clear of those high-risk areas, sometimes you just do not know they are there.

The other alarming point, which I will close on, is that, for the marine stinger, we have stinger enclosures, which have been very effective in this state for over 20 years, or longer. Unfortunately, crocodiles have entered those. We have had the situation where, every morning in summer, our lifesavers or lifeguards will drag those nets for stingers, but they are going in there knowing that there may or may not be a crocodile in there going into the net—whether it is over the top of the pontoon, or walking up the beach and into the net. Other fish is caught in those nets, so they frequent that area. Our concern is also for our own people when they go in every morning at 8 am to drag the nets that there could be a crocodile present. We support the removal of any crocodile of any size that is in a public space that could be a risk to the community, or a tourist.

CHAIR: Thank you very much. In terms of the bill, in your opinion, what does it do that the current approach to managing crocodiles does not achieve?

Mr Hill: I will commence by saying that I think the current program has gone forward a long way than we were, say, five or 10 years ago. We have seen an improvement. Surf Life Saving's comment would be that we have seen a vast improvement. We have seen a growth in the number of parks and wildlife officers in certain popular areas in the regions. I would say that, obviously, Cairns and that Port Douglas area have the highest number of crocodiles that we come across but, recently, we dealt with one at Rockhampton and we have seen some in the Mary River.

The bill, as it stands, is effective, but I think there needs to be more work with agencies like ours on how we can protect the community. I think putting up a warning sign is not enough. We certainly acknowledge that some attacks have occurred in remote locations, like Cape Tribulation. We get that. That is about education and warning signs, but I am talking about designated bathing reserves and swimming locations for the public. We think that there should be more of a focus on that area for any sized crocodile.

CHAIR: One of the points you made is developing a state coordination centre to capture and disseminate crocodile information, similar to shark data. Is your organisation well integrated with the Department of Environment and Heritage Protection in terms of its crocodile management practices at the moment?

Mr Hill: My answer to that is, yes, we have a wonderful relationship, but I will be honest in saying that it could be better in relation to knowledge from both agencies working together closer. I appreciate that officers change and stakeholders move on and change positions, so we are continuing to grow those relationships. Our lifeguards and lifesavers, I would tick that box in relation to having a good relationship.

With the coordination centre we have, I would doubt that that all parks and wildlife officers would know that we capture that data. We do not publicise it, but we certainly know internally how many sharks have been sighted today and during the week. It is the same with the jellyfish and marine stingers that are caught by our people dragging the nets. Now, we are capturing crocodile data. We forward that to parks and wildlife officers.

CHAIR: Just out of interest, of those 14 attacks that you mentioned in the past 10 years, how many of those were ocean attacks? Do you have that data?

Mr Hill: I do. I do not have the exact facts right in front of me, but I would say over 75 per cent.

CHAIR: You can take that on notice and bring it back to the committee.

Mr Hill: Yes.

Mr WEIR: You talked about gathering data and sightings. How do you patrol those beaches? Is it through drones?

Mr Hill: Right now, drones, no, but that is certainly in our strategic intent. I have lifeguards training this week to be able to place drones in Cairns. I know that there are no crocodiles on North Stradbroke Island, but certainly we see other challenges for us on that island. Our lifeguards are our

eyes and ears. They are there from 7.30 am to 5 pm. They are local and part of the community. They talk to the locals who come for an early morning swim or walk. We capture data by what we see, what we have witnessed during our duty time, but we also talk to the community and stakeholders who give us that feedback. My role and the role of my team back in Brisbane is to capture that and present it to stakeholders, like you, to make you aware of some of the risks out there in Queensland.

Mr WEIR: I notice in your submission you suggest the following—

All crocodiles to be removed from beaches and public access waterways. Problem crocodiles to be removed from all other locations.

Are you referring to all crocodiles, or problem crocodiles?

Mr Hill: Firstly, the problem crocodile is obviously one that is of a certain size and has been known to be a risk. It has either recently made an attack or it has an aggressive approach. I am sure that none of us would want to come across any of those anywhere we go. In relation to the removal of crocodiles in public waters, as I mentioned before, Four Mile Beach is a tourism mecca. We have an estuary to the north and an estuary to the south. We know that every week crocodiles travel from the north and the south to those estuaries. If we can capture those and remove those from that public space, I think that is a safer location for tourists to frequent.

I am not trying to sensationalise this, but the reality is that there are tourists sunbaking and there are crocodiles sunbaking less than 30 metres apart. Where this occurs, we obviously rove down to those locations and let the public know that there is a crocodile present. That is the difference. A place where we tell the public that they will be safe to frequent and recreate I do not think is a place where a crocodile should recreate. That is why we are saying that they should be removed. I think that most stakeholders know that the Johnstone River in Innisfail is a known crocodile area and that would be a no-swim zone.

Mr WEIR: You are saying that, in those estuaries, you have a chance to capture a crocodile whereas in surf conditions, obviously—

Mr Hill: On the advice of the parks and wildlife officers, yes, we believe that is correct. It is much more difficult to capture a crocodile in the ocean than it would be in an estuary. As we know, they are an apex predator, meaning that they are the top of the food chain in that water. When they become three metres or longer, they are territorial and more aggressive. They are looking for a food source and we know that they travel looking for that food source.

A local joke in the Palm Cove area is certain little crocodiles when they were babies were nicknamed. One was George. That is how I know about it. Those crocodiles have now grown to be over three metres long and they are moving around there. Do we know if they are the exact same crocodile every week? No, we do not, but, certainly, it is a risk that has the potential to have a catastrophic result to the community.

Mr KATTER: From your perspective, this comes down to crocodile numbers and their removal. They are big numbers. Do you think that what is being done at present is enough to adequately keep the people at your beaches safe? You were saying that it is tough on your workers now. That suggests to me that you would still think that there is a problem at the moment.

Mr Hill: My answer to that is, yes, I still think that there is a problem. I think that the bill and the officers are doing a great job but, obviously, the problem has been allowed to grow to what it is today. There is a higher effort required to get us back to what the community would call a satisfactory level. At this stage, without being an alarmist, there are certainly concerns from our members that they do not want to be surf lifesavers or recreate in water anymore north of Townsville. That must be a concern for recreation in general, not just for surf lifesaving.

Mr KATTER: There is no question about the department's aptitude, but you must observe the numbers on the beaches. Your lifeguards are part of your community. Have they expressed concern about the local economies and how this impacts on places?

Mr Hill: They have. You may or may not be aware that when we sight a crocodile we have a procedure in place which we have had signed off by the department. That procedure used to be to close the beach for 72 hours. It has now been changed to on the surety of a crocodile not being present we can reopen the beach. You can never be assure of that. If we were to close a beach for public safety for more than 24 hours in North Queensland we would affect the economy. Tourism operators and shop owners have come down and threatened our lifesavers and lifeguards because of the closure of beaches, whether it be a crocodile issue, in this case, or a box jellyfish issue.

Mr KATTER: That never used to be a problem?

Mr Hill: It was not a problem 10 years ago.

Mr KATTER: We hear a lot about educating people. Do you see that as an answer?

Mr Hill: Certainly. I think that was mentioned by the department at the last hearing. Surf lifesaving publish resources that have croc wise information in them. When we go to schools we will go to all schools and all levels. We also go to universities and the like in north and regional Queensland. We deliver not only water safety material but certainly croc safety and stinger safety material. We do this without alarming families to be scared to go to the beach. We are not trying to be alarmist. We are trying to make sure people can enjoy the water wherever they may go.

Mrs GILBERT: I want to go back to the issue of removing crocodiles from beaches where you say they travel between the estuaries. If the crocodiles are moving out to sea are they okay to leave or is it any crocodile on the move that is an issue?

Mr Hill: If we knew for a fact that they were just going from north to south and they were going to stay a couple of hundred metres away and we could monitor them visually by a drone or helicopter or aerial platform that would be okay. We know if an outboard motor or boat goes into the water crocodiles can detect a vibration within a thousand metres. That is ineffective because the crocodile will actually dive under the water. I think they can stay under water for three to eight hours. Putting a vessel out there is not the answer.

As long as the crocodile stays out there, we are good, but it is unknown. It is what we do not know. If it is a three-metre crocodile and it is aggressive and hungry does it come back into shore? We know that happens with tiger sharks and white pointers. We have seen what has happened in Byron Bay and Ballina where action was not fast enough and lives were lost. As an expert in the field of public safety and water, I am feeling the vibe that there is that potential in North Queensland.

Mrs GILBERT: Are you saying that all the crocodiles in those two estuaries need to be removed?

Mr Hill: I think the larger ones and the ones we know are travelling from beach to beach.

Mrs GILBERT: As they grow they would need to be removed?

Mr Hill: Yes. I am not suggesting culling at all. I am not suggesting that. They should just be removed.

Mrs GILBERT: Recently there was a big crocodile shot in Rockhampton. People who know a lot about crocodiles were saying that if you take out the large crocodile it upsets the hierarchy of the crocodiles which makes them more aggressive and results in lots of movement. If those reports were true would that mean that if you take out the big crocodiles you are going to have the little ones fighting to be the top croc? There is going to an imbalance all the time. It seems like you would need to clear them all out so you do not have that imbalance happening.

Mr Hill: If that is how the crocodile thinks and operates in its habitat then the answer is yes you would have to near a public space. I am not talking in all waters here, but where people frequent. Where the economy grows through tourism and visitation and community safety it is an issue, you would have to move that whole family of crocodiles. We know that that happens with shark families. When you remove the biggest predator though we have less of a problem. It is the opposite to this.

CHAIR: Thank you, Mr Hill, for coming in today. We are on a pretty tight schedule. We appreciate your time today.

Mr Hill: I appreciate the opportunity.

CHAIR: You have taken one question on notice. If you could have that answer to us by the close of business next Wednesday that would be great.

Mr Hill: Not a problem.

LEVER, Mr John, Owner Manager, Koorana Crocodile Farm (via teleconference)

CHAIR: Good morning, John. It is Joe Kelly here. It is good to speak to you again. I am the chair of the Agriculture and Environment Committee. With me today is: Pat Weir, the member for Condamine and deputy chair; Mr Lachlan Miller, the member for Gregory; Mr Robbie Katter, the member for Mount Isa; Mrs Julieanne Gilbert, the member for Mackay; and Mr Jim Madden, the member for Ipswich West. I invite you to make a brief opening statement and then we will open up to the committee for questions.

Mr Lever: I have been working with crocodiles since 1972 in several different countries—Papua New Guinea, where I learnt my skills and trade, and Irian Jaya, Indonesia, latter on. I have written the management program for both those countries. They are still being followed today. I am one of the old men of the crocodile world in Australia at the moment, but still active out there. I am still prepared to go out and catch crocodiles and do whatever is necessary to develop the industry in Queensland.

If we can go back a little bit in history, in the past we found that several governments of the day actually utilised the skills that were out there in private enterprise to help manage problem crocodiles in Queensland. We provided a crocodile removal service for Queensland for over 20 years. That was concluded when Pat Comben became the minister for the environment and said only his rangers could go out and catch the crocodiles. There were not the skills within the rangers to do the job at the time. It was not their fault. It was just that they had not been trained for it and did not have the skills. In the meantime, there was a reduced number of crocodiles removed from the wild because the skills were not there.

If there was anything I would like to see come out of this new legislation it is that there would be some sort of relationship between the new authority that is going to be established and the people in private enterprise who have the skills to remove crocodiles. This would be quite a saving to the Queensland government. If you look at the cost of the program at the moment—that is, having people go out and catch crocodiles—it is quite expensive.

Private enterprise works under a very different code of practice. Lillian, my wife, and I could go out and drive 400 kilometres, put a boat in the water at night, catch a crocodile and come back, which we have done on several occasions. For the government to do that it takes quite a lot of money and a lot of planning—three men in the boat, the boat has to be in survey and all those different things.

We are quite happy to take this up again. There are several other people in Queensland, I believe, who would be able to do a similar sort of job within their areas. Private enterprise that has the skills should be contemplated in the future and any sort of regulation to take up that challenge of removing problem crocodiles.

The second issue I would like to bring up is that pretty soon, with the number of crocodiles that are turning up and declared as issues, crocodile farms are going to say, 'We do not want another big male. They are just a waste of time. They cause disharmony on the farm. You cannot put a female with him for another year. We are obliged to keep them alive.' We have a 4.2 metre crocodile we got from the government. We cannot put a female with it for a year. We are up for building a new pen for the crocodile, isolating it, getting it used to humans and feeding and fences. Hopefully we will put a female with it next year, but we always run the risk that he is going to kill the female. Wild crocodiles take a lot of tuition to get them ready for the farming situation—fences, reduced areas and things like that.

Using the skills in private enterprise would be one of my recommendations. Certainly the government is facing a problem. If they make it too hard for people to start farms there is going to be nowhere to put these crocodiles shortly because people will start saying, 'No, I do not want to take these crocodiles. We do not have a spare pen. We do not have any need for a wild caught croc.'

Contrary to that, I keep back some of my young stock for breeders. It is a long-term proposal because crocodiles do not reach puberty until 10 to 15 years of age. It is a long-term, intergeneration thing as far as I am concerned. I am keeping crocodiles back for my children to go on with. I do not want them to have to cope with all these wild crocs all the time. I would rather them cope with animals we rare on the farm. They are much quieter by nature and easier to handle.

There is a bit of issue arising. Sooner or later there will be crocodiles caught and the government is going to say, 'What do we do with them? No-one wants them.' They are going to have to put a bullet in their heads. That is fine too. Why not copy what the Northern Territory has done? The Northern Territory has shown foresight to manage their wild crocodile population both for industry and public safety. I think we should look at their regulations to form a basis for future crocodile management in Queensland. It involves egg harvesting.

You will remember when the committee was with me that I suggested to you then that there is not one place in the world where egg harvesting is practised that there has been a reduction in crocodile population. I know everyone thinks that it should be the other way around—you take all the eggs so there is no young coming on. Believe me, you never get all the eggs; it never happens. There are either very early nests or very late nests or they are hidden. You never get them all.

The strange part about it is that when you remove the eggs and you have the basis for a crocodile farming industry to develop in Queensland then you have greater employment in rural areas and you have Aboriginal employment in remote areas collecting eggs, surveying nests and doing all that sort of thing. It is a bit of a win-win.

I do not agree with the people who say we should not have an industry. I do not agree with the people who say we should not harvest the eggs. I do not agree with the people, including the government, who say we have to wait to get all the facts before we do this. The Northern Territory did not. They just started and then did a monitoring program. That is quite acceptable for CITES, the international legislation and the Australian department.

That is where I would like to leave it. Koorana is prepared to go out and catch crocodiles at the request of the government, under certain conditions—we get to keep the crocodile and it is a fee for service. We did it for nothing for 20 years. Those days are long gone. The vast majority of crocodiles that are determined as problems are males not females. They are the ones that roam around.

CHAIR: Thank you, John. Other than egg harvesting, are there any other differences between the way crocodiles are managed in Queensland compared to the Northern Territory?

Mr Lever: Not a great deal except that the Northern Territory have already adopted a practice of having registered crocodile hunters who get a licence to go out and remove crocodiles off properties or in areas of public recreation. These guys focus on the large male crocodiles because that is how they get their return. When they get them, as long as they have a tag to put in that crocodile, they are then permitted to actually kill the crocodile and skin it or stuff it or sell the head or whatever they want to do with it. There is no suggestion that they have to keep it alive for a year or do anything like that. If it is a valuable animal to the farming industry they would sell it to the farming industry.

Quite a lot of these people are outside of the farming industry, they are not just farmers, whereas in Queensland there are very few people outside the farming industry who would be, I think, registrable to go and catch crocodiles in the wild. Egg harvesting and monitoring is done by the government up there: NRETAS. They do sampling in rivers every two or three years just to check out the population status. It is regular sampling. It would be easily done in Queensland by a survey of nests. I do not agree with eye shine surveys in Queensland rivers. It is too hard. They are short rivers running into rock bars and sand bars and log jams and things like that. It is a lot easier to fly over with one experienced operator and to just look out the door of a helicopter, count the number of nests during the nesting season and use that as a very good basis for population dynamics.

CHAIR: One of my other questions, which we discussed it when we were up there, was what are your thoughts on landholders being able to kill or relocate crocodiles from their hand?

Mr Lever: Definitely not. I have been part of the Public Service in Australia and New Guinea and when you lose the authority or you lose control, you are not in charge of that control factor, a landowner can go out and he can kill a crocodile on anyone's property and say he got it off his own and then try to market the products. I do not think this is wise. I think you have to have a handle on the control of the people who are out there doing the killing or the harvesting. It will get to a stage where crocodiles have to be shot, I agree with that—I do not think it is quite there yet—but there are some crocodiles that are untrapable and uncatchable. To give you an example, we had a crocodile in the Sticks River that we spent $10,000 on trying to catch and we saw it for three seconds. That was over a two-month period. They are not always that easy. Some crocodiles just need to be removed from areas of public recreation in any way possible. Just to have a landowner go out willy-nilly—look at the crocodile in Rockhampton recently. Someone lost patience because there wasn't an effort there to go out and catch that large crocodile. It was right in the middle of the Ski Gardens. It was a 5.2 metre crocodile. It really astounded me that there was one there that big, but there you go. People have been reporting it for years, but because the National Parks and Wildlife rangers had not seen it, according to their conditions they work under it did not exist.

CHAIR: Thank you very much. I will go to the member for Condamine for questions.

Mr WEIR: John, I am curious. You were saying that other than the department, private operators go out and capture these rogue crocodiles or problem crocodiles. There is certainly not going to be the incentive to go and do that by the value of the crocodile you capture, especially after what you just said about months trying to capture one. How would you envisage that working?

Mr Lever: I would envisage a fee-for-service in Queensland. It could work on a cost recovery basis. Bill Byrne got in touch with me a couple of years ago now and said that people cannot seem to catch this croc, are you prepared to go out and get it. I said yes but I want a fee-for-service. It is a saving for the department. Why not spend it on private enterprise who have the skills to go out and catch the croc. Anyway, when he heard there was a cost involved he declined to get in touch with me again. Quite frankly, I think you should have this management program on a professional status. If you leave it up to amateurs all the time or you have an open season on crocodiles, it is the worst thing you can possibly do. It really is. You are going to end up with a lot of wounded crocodiles, shot incorrectly by amateurs and you are going to end up with crocodiles that come back to be really potentially dangerous to people because they become unpredictable and just about uncatchable after they have been wounded.

Mr WEIR: We have also read in a couple of submissions that when a large crocodile is removed it upsets the ecosystem or the pecking order in amongst the crocodiles. Do you have any comment on that?

Mr Lever: This is part of their natural environment. The press has made a lot of it recently. I helped the rangers catch a crocodile up in the East Alligator River up in the Northern Territory in Arnhem Land actually in Kakadu National Park. This was a crocodile that was stalking people at a boat ramp. People, quite often full of rum, were up to their waist in water getting their boats on and off and this crocodile used to come up within 10 metres of the back of the boat. We went up and we caught that crocodile and we removed it. The report I got back from the ranger, Gary Lindner, was that the vying for that No. 1 position in the following months was incredible. All the young males were seen fighting. There was nothing against people. This was the way they jostle for position. This is normal in their communities. When you do remove a large crocodile from an area, and he has been in charge of all the other crocs and keeps them in order, you expect that there is going to be some changes going on in that crocodile society until, and it takes about two seasons, the new alpha male establishes himself and then keeps a bit of order and then all the rest back off a bit and remain subordinate to him. Then he determines that is his territory. Now, it depends on his actual personality and temperament as to whether he is going to be a threat to people or not. This 5.2 metre crocodile that was shot in the Ski Gardens of Rockhampton was obviously a very placid crocodile. Whenever an eye shine was seen, it just disappeared within two seconds. That was probably him. He was just a very quiet crocodile. But even quiet crocodiles, if there is a vibration near him, they instinctively have to react, hence the reason why crocodiles in excess of two metres long should be taken from areas of public recreation. It is just a standard thing. If people jump out of a boat or people go fishing down near a boat ramp and make vibrations, like one horse trainer in Rockhampton, who took his horse down to give it a swim and a crocodile jumped up at the horse because the horse made a splash near the croc and luckily the guy holding the reins was pulled back with the horse. You get all sorts of circumstances that happen. It is not the crocodiles actually hunting people or trying to get people, it is just an instinctive reaction to a vibration near them.

Mr KATTER: John, I have heard stories that up in the cape some of our first Australians on a station used to harvest the eggs and make a reference to leave that croc alone. They were conscious of numbers. I suppose a lot of that does not go on anymore. Do you think that you might use the term 'out of balance' at the moment where the numbers are high?

Mr Lever: A lot of the Aboriginal communities are sensitive towards crocodiles and others just do not give a darn about them, they are just a problem to them. I will acknowledge that. This also happened in Arnhem Land, but once they found out they were worth money—this year we have paid out about $60,000 to land owners, traditional owners in Arnhem Land, for the egg collection we did. I would be very happy to pay the same sort of money out to traditional landowners in the gulf or in Cape York. A lot of the people, a lot of the Aboriginal communities, are worried. Particularly when there is a death of a child or their dogs are taken or something, they get very, very concerned. There is a bloke on Boigu Island who was doing exactly the same. He just wants some big crocodiles removed because their dogs are being taken. He just thinks it is going to be a child soon. That is part of Australia too, but it hasn't been visited even by anyone from the department. Mornington Island has a huge crocodile on their main beach where the kids like to go and swim. I don't think anyone from the department has actually paid them a visit. I think they deserve the same sort of protection under this bill as anyone else. There was a little girl taken up in Mapoon a few years ago. Of course there was a massive reaction against it by some people and other people said well this is what crocodiles do and we have to accept that. An incentive for these people to look after their crocodile populations is to get money for collecting eggs. I know this is not the highlight of this bill. This bill is about managing the crocodile problem in relation to human attacks.

Mr KATTER: You made reference to the NT plan. You say how they are operating is superior. Why do you think that has not been adopted here in Queensland?

Mr Lever: There was a very strong green push if you like—I will call it a green push, not just a conservation but a political green push—to stop killing any animals, do not have any animal industries and particularly any wild Australian animals. Australia Zoo headed this up a few years ago and had big signs around their park, 'Don't buy kangaroo skin.' 'Don't buy crocodile skin.' That is their belief, that is their religion. I am quite happy to say, yes, I acknowledge that is the way you think, but I have been a part of conservation through commerce in three countries now and I have seen it working extraordinarily well. Make the animals worth money. If it is a potentially dangerous animal make the animal worth money and you will always have it around. The conservationists will just say leave them alone. If you leave them alone you have the massive cost of trying to do a management program to keep people safe. If the crocodile population builds up too much in areas you are going to generate a problem for the future. Determining areas where they can be removed from is one of the aspects that I think should take place. The current government has done a fairly good job, but I do not feel it is extensive enough. They do not acknowledge that a crocodile can move 60 or 70 kilometres in a night on an incoming tide. One of the ridiculous things in Rockhampton is that the 200 metres around the boat ramp is the only area where a crocodile can be removed from. This is fairly close to where this big 5.2 metre croc was caught. What a ridiculous thing to even put on a map. When a crocodile can move 10, 15, 17 kilometres a night, why do we play around with saying if he is within the 200-metre limit from the boat ramp we can take him and if he is outside that we cannot. That is just absolutely stupid. When I was hunting in the eighties and nineties and being fairly successful in removing crocodiles from the wild, they just gave us a river system. They said there is a problem crocodile, it's in the such-and-such river, it's about four metres long, go and get it. If we caught a two-metre long crocodile they said put it back, but if we caught anything close to four metres then they would say righto it is yours, take it. I think they have to adopt a much more pragmatic approach and not be so prescriptive because you limit the opportunities to actually go and catch a crocodile when you are as prescriptive as saying 200 metres around the Alligator Creek boat ramp in Rockhampton. I mean, it is a nonsense.

CHAIR: Thank you very much for presenting today. Our time is somewhat limited. We did take many notes away from our visit to your establishment. Thank you very much today.

Mr Lever: I wish you every success with the outcomes.

FERGUSON, Mr Bill, Government Relations Manager, Australia Zoo.

CHAIR: I note that I visited Australia Zoo and met with Terri Irwin a number of weeks ago. Bill, I would like to invite you to make an opening statement to the committee and we will follow it up with some questions.

Mr Ferguson: Firstly, could I thank the committee for allowing me to appear as a witness and, secondly, Terri Irwin has asked me to put in her apologies as she is currently overseas but would have loved the opportunity to speak to you about crocodiles and their importance to the ecology of Queensland. This bill purports to protect human lives but unfortunately the opposite will occur, with more deaths and injuries caused by crocodiles if it is passed. Based on more than 10 years of crocodile behaviour research carried out by the University of Queensland and Australia Zoo in Western Cape York and documented outcomes in other jurisdictions where similar measures have been introduced, this legislation will be disastrous for humans and for crocodiles. Increased interactions between humans and crocodiles will occur and the outcomes will not be good for either species: for humans, severe injury or death; for crocodiles, death or removal from their environment.

I understand the committee has studied the crocodile management practices currently in place in the Northern Territory, and this bill closely resembles their measures. It should be noted that before the Northern Territory introduced its current plan there had been 10 human deaths in 33 years from crocodile attacks. Since then there have been 14 deaths in only nine years. That is more deaths in a much shorter time span. With Queensland's larger human population the consequences of introducing the bill's measures would be far worse.

The introductory speech and explanatory notes to this bill make a number of claims with no research to back them. Actually, there is little long-term research into the effects of crocodile egg harvesting on wild populations. In 2006 the Zimbabwe Parks and Wildlife Management Authority carried out surveys over four years of wild crocodile populations where egg harvesting and hunting are permitted. Over most of the survey locations populations declined severely. Northern Territory crocodile farmers do point to research they have helped finance, but very little has been focused on crocodile population sustainability, with most research looking at how to improve farming practices and strengthen competitiveness. However, as I said, the environmental research has been basic and sketchy at this stage, and more detailed long-term research has to be undertaken before we can start interfering with apex predators.

Detailed overseas research has already shown that reducing predator numbers can have devastating impacts on biodiversity, ecological niches and the health of the environment due to the trophic cascade effect. Also, how can we talk about harvesting eggs and culling crocodiles when no-one can accurately tell us how many crocodiles there are in Queensland? All we can agree on is that crocodile numbers have improved since crocodile hunting was banned. We need long-term crocodile surveys in Queensland so we can not only get a baseline but also see if the crocodile numbers are increasing. We should embrace the fact that we have an apex predator, a descendant of dinosaurs that is making a comeback, not only for the environment but in an economic sense too. Think nature based tourism. People pay to see the 'big five' in Africa, and the Northern Territory has been reaping the tourism benefits of getting up close with crocodiles. Local and international tourists want to experience the wild north, and so far this tourism potential involving crocodiles has been largely untapped in Queensland.

We also need a strong crocwise education program in place. There are simple steps that people can take to avoid crocodile attacks. Terri Irwin has offered her services free of charge to the Queensland government to lead a crocwise campaign for Queenslanders and to also target international tourists. I urge the committee to consider this.

So far I have only touched on two of the recommendations that Terri Irwin made in her submission. I would urge the committee to carefully consider the others. I would also urge the committee to reject this bill in its entirety because it does not make environmental sense, it does not make scientific sense, it does not make economic sense and people will die.

Mr KATTER: I have a number of questions. I am a little bit confused. You said that it does not make scientific sense, but we have recently heard about a 38 per cent increase in sightings so that can be an argument as much against as for taking action. My main question is have you with engaged tourism operators, people who live on the South Johnstone River, people who live at Port Douglas and who own resorts there who have observed an increase in numbers and people like myself, who live up there and use these rivers to swim, which I am restricted from now? Have you engaged those sort of people up there?

Mr Ferguson: With regard to your first point about sightings, the fact there have been sightings is not a scientific basis for an argument: it is just an observation. In relation to tourism operators, we allow limited tourism potential on our reserve near Weipa. We have two tourism companies who bring tourists in there. We teach them about crocodiles. We show them the research that we have done, and there is a great potential for other operators up there to use what we are doing with an apex predator.

Mr KATTER: I appreciate your answer, but there are plenty of rivers up there with crocodiles like at Cape Tribulation. No-one is trying to remove them from some of those rivers and they are happy to have them there, but there are a lot of areas where we are accustomed to swimming and camping. There are situations like the Innisfail rowing club and ski club, which are closing because in the last 50 years they have swum there and now they cannot. What about those areas? Would you identify those as a problem?

Mr Ferguson: We have no problem with problem crocodiles being removed, ones that have shown to be aggressive or taken people's dogs et cetera. We support that, but it does provide a false sense of security because other crocodiles will move in in time. With regard to living in North Queensland, I think the issue has been that, as someone like myself who grew up near Townsville for 20-25 years, when I go up there and go fishing it is a completely different situation now to when I was a kid. I used to swim out to get my lure when it was snagged and things like that, but I would never do that now. I think it is a matter of living with the circumstances that we have now. For recreation areas, certainly set them off so there is a certain amount of security regarding crocodiles, but unless you have a walled area for people to swim in you are never going to be absolutely certain there is not a crocodile there. Even the measures that are proposed in your bill with widespread culling or anything else, there will be no definite surety there will not be a crocodile there because, as John said, they can travel up to 60 kilometres in a day. We captured one crocodile near Weipa, transported it over to the east coast, and it swam all the way back to where it came from. They can travel enormous distances in a day. Just because one has been removed does not necessarily mean that another one will not be there.

Mr KATTER: Hypothetically, because it is going to take three years for a study, if there is a high level of risk there it has been enhanced by increased numbers. Let us say that everything that one knows is true and all the observations confirm there has been a big boost in numbers, but if that was presented to you now and the science said there was a massive increase would you think that, given conservation values do impose a cost on the lifestyles of people, affirmative action needs to be taken?

Mr Ferguson: We would certainly consider what the situation was once we have seen all the facts. That is the same with crocodile egg harvesting. In the Northern Territory it is a bit different, because a lot of their areas are good for nesting. In Queensland, especially in Far North Queensland, it is very hard to sight the nests. John's idea of flying a helicopter over and picking out the nests is almost impossible along the Wenlock, where we have done our studies. We are only just starting to find nests now after 10 years, and that is only through studying the movements of large females and where they go. We have followed them up little estuaries and found the nests there, but flying over the top using drones you will not be able to see them at all.

Getting back to the issue of egg harvesting, if the science proves that it has no lasting effect on the environment and the role that crocodiles play, then certainly. Like I have said, that research has not been done yet.

Mr KATTER: What about traditional owners?

Mr Ferguson: Even for traditional openers it is something that we still have to monitor closely to see what effect that has. I know they have done it in the past, but what effect that has on populations is still an unknown.

CHAIR: Mr Ferguson, what you are saying is that even if we reduced crocodile numbers in a particular area it would give us no guarantee, so effectively the only way to have a guarantee would be to effectively exterminate crocodiles completely.

Mr Ferguson: Yes, that is one way of putting it. As I said, that would have a tremendous effect on the environment itself and biodiversity. We have seen the effects in the Yellowstone National Park. When they removed the wolves, the next layer below them on the pyramid, the deer and the elk, started multiplying and they destroyed rivers and vegetation. When the wolves were brought back they changed the behaviour of the deer and elk, and all the other animals started coming back because the trees started growing back along the waterways, beavers came in and started building

dams, then all the birds followed after that and all the other small animals. Removing an apex predator would definitely improve the safety of Queenslanders if we had no crocodiles, but the effects on the environment are enormous and you are missing an economic opportunity yourself, because people want to see apex predators because there is the myth around them, and they are magnificent animals when you are up close. We are tracking 160 in the Wenlock at the moment, and when you capture them and you are up close it is a tremendous sight.

CHAIR: I realise that extermination is an extreme position to take. Is there any research that links a certain population to a certain increase in safety? Could we say that if we knew the number and we took the number of crocodiles that exist now from, say, 100 per cent of what we have now down to 60 per cent, people would be X times safer? Has there been any research done in relation to that?

Mr Ferguson: No, not that I have seen. Certainly this is only anecdotal and not scientific, but fishermen have told us that their healthiest, the easiest and the biggest barramundi are normally in areas that have the healthiest crocodile populations.

CHAIR: In relation to the statistics you walked about in terms of the Northern Territory once they introduced measures like those proposed in the bill, do you have any views or any evidence as to why that has occurred, why there has been an increase in the attacks post?

Mr Ferguson: Because it increases the number of interactions between people and crocodiles. Yes, putting a value on a crocodile is good in an economic sense, and that is certainly what we are proposing as well in tourism, but putting a price on a dead crocodile means that people will go out egg harvesting when there are large females around protecting their nests, and that leads to greater interactions and a greater chance of injury.

Mr WEIR: In your submission you made a comment about lifesaving. You did not believe that rowing and skiing clubs are closing their doors because crocodiles are driving their members away, and you claim that is one of the misleading claims. We heard evidence earlier from Surf Life Saving, and I know you say that catching a crocodile and seeing it up close is a fantastic experience, but if one captures you and you see it up close that is what these people are worried about.

Mr Ferguson: Yes, and to clarify that point, I was only talking about the introductory speech to the bill and the explanatory notes. Both of those statements were made there but they did not provide examples, so that is all I was saying there. It was not clearly spelled out.

Mr WEIR: We heard earlier—

Mr Ferguson: Yes, and I understand that that would have an effect on Surf Life Saving. With regard to the fact that you have areas where crocodiles regularly travel between estuaries, that is absolutely true and removing crocodiles that are doing that naturally does not necessarily mean that those areas will be safe. If they are aggressive towards people, yes, remove them, but it is not going to stop the others. Like I said, we have been capturing crocodiles for 10 years on the Wenlock. Only this year we caught another 15-footer that we had never seen before. We suspected he was there, and John was right: large crocodiles have certain territories. We had caught all the larger ones and they stick to these areas, because we have trackers on them. They stick to these certain areas and then there was a gap and then another large crocodile. We eventually caught this guy after 10 years in that gap, so he has been there all that time. To be removing large crocodiles also means that they will all come back in eventually.

Mr WEIR: Just as a point of clarification: when we were at John Lever's crocodile farm he showed us a bit of footage and where they were egg harvesting there were large marshlands and grasslands. What are you saying? That there is a lot more canopy that you cannot see through where they are nesting up north? Is that what you mean?

Mr Ferguson: Yes. There are marshlands where they do nest, but not to the same extent as the Northern Territory. Getting helicopters in there and things like that will be very difficult from our experience on the Wenlock. The other thing that was clear from our research and our observations going along the Wenlock is that it has very steep banks. You do not see a lot of crocodiles at all because the banks are too steep for them to sun themselves on. We were processing a crocodile in August this year. We were standing beside the water and when you looked out you thought, 'This would be a great swimming hole,' but you are standing beside a 15-foot crocodile that was swimming there before. I know the temptation is there for people to swim, but you are taking a huge risk.

CHAIR: Has there been any modelling done or research done on the economic benefits in relation to tourism related to crocodiles?

Mr Ferguson: Not specifically on crocodiles. Certainly they have done research into apex predators and nature based tourism, and the figures are there for people to find. We have been able to find research on koalas of course. They are a huge drawcard for Queensland, but in terms of specific numbers on crocodiles and their attraction no. I am sure it would not take a great deal of research to find out that figure.

CHAIR: Even if we reduced numbers in an area—let us say we took them down 50 per cent, 60 per cent, 80 per cent or whatever that number was—you would not be able to stop the education and the other precautions that people would need to take because there would always be that risk that there are still crocodiles in an area. Is that a fair estimation?

Mr Ferguson: Yes, that is true and young males up to about three metres travel huge distances. They can travel, like I said, 1,500 kilometres in a year just because they are looking for someone to mate with and they are looking for their own territory. If you removed all of the large crocodiles in one area, then eventually, as these crocs move around, they are going to settle in an area where there is no competition for them.

CHAIR: Bill, thank you very much for appearing today.

Mr Ferguson: Thank you.

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

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

JAMIESON, Ms Jane, Manager, Conservation and Biodiversity Policy, Conservation and Sustainability Services, Department of Environment and Heritage Protection

CHAIR: I welcome representatives from the Department of Environment and Heritage Protection. I invite you to make an opening statement. You have presented on your management programs, but we are particularly interested in your views on the specific measures in this bill.

Dr Clouston: I thank the committee for providing the department with this opportunity to make the submission and to attend today. In our submission we did respond to the bill by looking at the context of our current regulatory approach, and we have already talked about that. We also outlined the benefits and limitations of the bill's proposals and how we thought we could achieve some of these through our existing legislation. Today I am just going to look at some of the areas where we still have concerns and we do not have full clarity from the bill. We saw that there are three main areas—setting up the Crocodile Authority, the licensing and permitting framework and the crocodile reserves.

If we established the Crocodile Authority this would provide a semi-independent oversight for crocodile management. However, we still have some questions about the funding and the mandatory location of all staff in Cairns. It is not clear whether the authority is intended to be established as a Public Service office under the Public Service Act and then if so if there would be any inconsistencies between the bill and that act, as the bill proposes that to any extent of any inconsistencies the bill will prevail over other legislation. We are just not sure how those two things would work together. It is also not clear how it would be funded. In the explanatory notes it says that this would come through our existing department allocations, but there is actually nothing in the bill to give this effect and obviously there would be additional costs in setting up a new authority in terms of accommodation, administration and that sort of thing. The other thing we were not sure about is if it would be the existing departmental staff who would all have to be transferred to Cairns or whether there would be some other arrangement. We would expect that if all of the staff were based in Cairns it would limit their capacity to respond to sightings in a timely and efficient manner compared to now where we have staff across the whole range of the crocodile habitat. We did note that we could set up a Crocodile Authority under the Nature Conservation Act either as an advisory board or we could amend the act to set it up as a statutory body.

The second element was about the permit and licensing framework. It allows for licences, permits and other authorities for the culling, harvesting and farming of crocodiles and their eggs. We could not work out from the bill how it would link with or whether it would override the current permit framework that we have under the Nature Conservation Act. Again, we were worried about whether there would be any inconsistencies with the requirements of other legislation such as for animal welfare under the Animal Care and Protection Act because one bill would prevail over the other. We were also not sure if all members of the public would need specific training or skills to be issued with a permit, as is currently required. We were also a little bit concerned—because this is part of what our job is—that we would only have two months for the regulation to be presented to parliament which is an insufficient amount of time for us to go through the proper and accountable government processes of impact assessment and drafting and approvals. If the intention is to export the products—so the crocodiles and eggs taken from the wild—then, as we discussed previously, this would require amendments to the Queensland Wildlife Trade Management Plan which then needs to be approved by the Australian government. This is required so that export permits can be issued under the Convention on International Trade for Endangered Species. If the Australian government was not going to approve our amendments to the Wildlife Trade Management Plan, then this could compromise existing crocodile farming and the export industry in Queensland, so we would like to see clarity around that.

Finally it talked about setting up areas of land as a crocodile reserve, but it was not clear to us what the benefits are of establishing these reserves and there was no detail to understand what the intent or the effect of the reserve was. We thought perhaps there might be some inconsistencies with fundamental legislative principles. For example, there is limited detail about the terms of the appointment for the director and board members of the authority. Given that the bill has the ability to prevail over other legislation, there is the potential that the minister would have unrestricted power

when it comes to these appointments. Mostly we have looked at this in terms of sustainable management of estuarine crocodiles and at the moment we just feel that as it is currently drafted there is not sufficient detail for us to implement this framework. Our particular concern is that it may have implications for the existing export arrangements for crocodile products and may impact on the crocodile farming industry.

CHAIR: Thank you, Dr Clouston.

Mrs GILBERT: I just wanted to ask a question a little bit outside of what you just reported on. In my area of Mackay there are a lot of different Indigenous groups and a lot of South Sea Islanders. They believe that they have the best knowledge of how to come back to the department to manage the crocodile population. Do you believe that you have had enough interaction with some of our Indigenous groups with the work that you are doing currently to be able to—

Dr Clouston: I will leave that one to Lindsay. It is a management question.

Mr Delzoppo: Sure. We have not specifically had engagement with traditional owners or with South Sea Islander groups in your electorate or in that area. We have much more authority with traditional owner groups on the Cape York Peninsula and elsewhere. As you may know, we are the department responsible for administering a whole range of Indigenous ranger programs across Cape York and elsewhere and so we have arrangements with those groups. From time to time we have arrangements where people can get authorities and have training to manage crocodiles in their areas. It is not something that we have done in your area, but we would be happy to discuss it.

Mrs GILBERT: Do you see that there is a value in having people who have lived with crocodiles much longer than us take over the program so that they can train the population of how to manage crocodile populations?

Mr Delzoppo: I guess what we see is making sure that whoever we have being sent out to deal with crocodiles are really well trained and capable of dealing with crocodiles safely and effectively. We do not mind who it is really; we have to be comfortable that the people can do it safely and properly.

Mrs GILBERT: Thank you.

Mr KATTER: Dr Clouston, you mentioned a number of issues that you have with the bill. Do you at any time take a position where you can make some recommendations as to how a similar objective could be achieved or give any solutions to any of these?

Dr Clouston: In our submission we did go through each point and tried to provide different solutions. You will find that there is an attachment 1 and we go through all of the different bits showing what we could do and how we could change the legislation, and it would be fundamental change to the legislation.

Mr KATTER: From the last public hearing as well—and I do not mean this as a criticism—it comes across that there is not a problem or that we are doing the best we can, but there must be an acknowledgement that there is a community cost to this. Personally, I cannot swim where I want to now on camping holidays because they are pushing up further and locals would say that is because numbers are thickening up. Does that come into your consideration when you give a response on these issues, because it must impact on how you would find alternatives to be mindful of what is happening on the ground out there?

Dr Clouston: There are two questions there. One is the legislation question and the other is the management question and then together we have worked to develop the Crocodile Management Plan that we talked about when we were here last time. Yes, people's views of course were taken into consideration on that because we did a survey of 1,900 people before we made those changes. Yes, we obviously take into account those views.

Mr Delzoppo: From an operational point of view, we have made a point in the recent year or so of establishing ongoing working relationships with local governments that we believe have very good local knowledge about what the uses are in an area and the groups in the area et cetera. We meet quite regularly with individual councils that can give us that information and help us make more informed decisions about whether or not a crocodile is a problem or not a problem in that particular area.

Mr KATTER: Does that include Carpentaria shire and Mornington?

Mr Delzoppo: Yes, I think we are meeting with Carpentaria shire soon and Mornington, yes. I heard Mornington mentioned earlier. We have removed an animal from Mornington. We have conducted preliminary training with some Indigenous rangers at Mornington Island and we are looking

to have some more formal arrangement with traditional owners with a view to them being fully trained and have a crocodile management authority under the nature conservation legislation. Indeed, we are offering them the use of a trap that they could have and use once they are trained.

Mr KATTER: Did the department know that there had been no consultation with the Carpentaria shire, Karumba and Normanton?

Mr Delzoppo: Do you mean about this legislation or in terms of day-to-day management?

Mr KATTER: I would probably say both because the issue has arisen with the onset of the legislation and the recent increased sightings. I would have thought that that heavily implicated the department.

Mr Delzoppo: I will talk from an operational point of view. Yes, we do deal and are dealing with those councils with a view to having cooperative arrangements, ranging from simple things like putting out recent crocodile sighting warning signs to pursuing having individual staff from council and traditional owner organisations trained and having authority to take action against crocodiles if we are satisfied that they can do so safely.

Mr KATTER: We established last time that it will be three years before we get a proper count to define whether there are more crocs or not.

Mr Delzoppo: That is correct.

Mr KATTER: Other than the number of reported sightings, is there any evidence before that three-year count that is going to impact on the opinion of the department?

Mr Delzoppo: In establishing the scientific program that is currently underway, we really did consult widely with experts in Australia. We consulted with Dr Laurie Taplin, who did a lot of work in the mid-eighties for our department. We consulted with the IUCN, the international expert group on crocodiles, and took their advice about what was required in terms of sound sampling. We made some adjustments based on their advice to incorporate some crocodile surveys from helicopters. We also consulted with local experts and statistics to make sure that our Cairns council material would be statistically valid. We are confident that it will be very good information at the end of that period.

Mr MILLAR: I just want to pick up on Dr Beth Clouston's comments about the RIS. What is the issue around the regulatory impact statement?

Dr Clouston: It is just the timing. We only have two months and it normally takes us longer than two months to put a regulation through, particularly something that would have a lot of large changes in terms of changing a permitting system, allowing something like egg harvesting and that sort of thing. It is really just the time frame. That is why we came up with a solution to make it longer. That is all you need to do.

Mr MILLAR: I have another question on policy. Do you look at what they do in other states? We have heard a lot about the Northern Territory. They seem to have a process in place that is working, or to us it seems to be working. Is it working or is it not working?

Dr Clouston: Yes, we do look at other jurisdictions for a range of things. At the moment we are looking at the Northern Territory quite closely in terms of their egg harvesting and how they have done that and how they have permission to do the egg harvesting.

CHAIR: Do you mean they have received permission from the federal government? Is that correct?

Dr Clouston: Yes.

Mr MILLAR: How long would it take to get permission from the federal government?

Dr Clouston: At least six months. At the moment we are re-doing our wildlife trade management plan. The current one expires in December. We had to have it to them in July in terms of getting it approved by December.

Mr MILLAR: Why does it take so long?

Dr Clouston: Luckily it is not the Queensland government, so I cannot answer that question.

CHAIR: You mentioned in your submission some studies and research that has been done on wild crocodile populations. Can you give us an update in relation to how that is progressing?

Dr Clouston: That was the population studies that Lindsay was referring to previously.

Mr Delzoppo: I have already given some background about how we are prepared to make sure that we had the best possible sampling program that we could. That survey program started in earnest in April this year. We are just finalising this by doing work on the Wenlock, the Jackey Jackey,

the Jardine and areas in Far North Queensland in most recent weeks. We are finishing this year's work. At the end of this year we will publish an update on what we have done to date and we will do that each year as the program progresses.

CHAIR: In terms of the proposals in this bill, do you believe that they provide any additional tools or capacity for your organisation to be more effective in terms of managing crocodiles?

Dr Clouston: I really cannot answer that question. Until we have the regulations and see how the whole thing is set out, which would depend on the government of the day, I cannot answer that question.

CHAIR: You mentioned a range of other animals in your submission that can be fatal to humans—bees and wasps, brown snakes, snakes generally, sharks. Is it possible to compare the danger posed by brown snakes to the danger posed by crocodiles?

Dr Clouston: From an individual perspective you could look at the risk of being injured by either one. Our brains are not actually very logical when it comes to risk. There are a lot of theories around that and our risk aversion. In terms of your risk of being killed, it is a valid thing to do. I think there is a very emotional response when it comes to crocodiles though. When it comes to being attacked by a bee compared to being attacked by a crocodile, people have a different emotional response.

CHAIR: It seems to me that the risk of being attacked by a brown snake in Queensland is actually higher than the risk of being attacked by a crocodile.

Dr Clouston: It is much higher, yes. The risk of crocodiles is very low.

CHAIR: What would the department do if there was a proposal to reduce, say, brown snake numbers?

Dr Clouston: I do not even know what their endanger status is. It would depend on their status in terms of whether they are a threatened species. What we would be able to do about that and whether we would want to start culling snakes—again, we have already talked about predators and apex predators. As you know, snakes have an important role in the ecosystem as well. I do not know whether you really want to start taking them out.

CHAIR: I grew up in North Queensland. I have spent a fair bit of time on Magnetic Island, living there et cetera, and in Townsville. Stingers were always a feature of our involvement in the water. There were always precautions taken. Is the way forward around education in relation to, say, stingers because I cannot see that we can effectively or manage the population of marine stingers?

Dr Clouston: That is correct. That is right. There are far greater risks from marine stingers than there are from crocodiles. We have no way of dealing with them otherwise.

CHAIR: In terms of monitoring populations of animals, does the department do any ongoing monitoring of any native or wild animals or is monitoring just done by biologists or researchers from universities on a periodic basis when there is a reason or funding or an interest?

Mr Delzoppo: I am glad you mentioned that because we are just about to be celebrating a 50th anniversary of a monitoring program that the department, or its predecessors, started with the turtles on Mon Repos. Fifty years ago in a couple of weeks Dr Col Limpus started monitoring there, and it is the longest running monitoring program for any species, particularly marine species, in the world. We are celebrating that. We do that and we do that well, and we are proud of it.

In other areas we do not monitor them ourselves. We rely on academics. Academics present papers and we use that information. For example, there is an annual survey conducted by Professor Richard Kingsford from the University of New South Wales where he does transit surveys of waterbirds across the whole east coast of Australia. We pay for some of that and we get the information from that. We also participate with the CSIRO and others in monitoring flying fox roosts in Queensland in conjunction with New South Wales, Victoria and the Commonwealth government. We do regular surveys on the numbers and types of animals in those roosts and how the populations are going. Where necessary, if we are concerned about a particular species, we might pay to do some work. It is variable.

CHAIR: In relation to your submission, you talk about the arrangements for the funding of the authority being unclear. Has the department done any modelling on what an authority of this nature might cost? Are there any views on what the benefits would be of having an authority like this based in a place like Cairns?

Dr Clouston: No. We have not done any modelling on the costs because we were not really sure under what system it would be set up, whether it would be under the Public Service Act or a government owned corporation. We were not sure exactly what it was. The further away we get from using the department's resources the more we are going to have to duplicate them. It would really depend on those arrangements. I have no views about having the authority in Cairns.

Mrs GILBERT: A lot has been said by different submitters around the hierarchy of crocodiles, their movement and that type of thing. Has there ever been a program to put a tracker on the head crocodile? Somebody was talking about there being families of crocodiles and, if you are going to remove a crocodile, you take the family because the head crocodile keeps all the other crocodiles in check in terms of safety at boat ramps and things like that. Do you go out and put trackers on them so you can see where the crocodiles are going and what they are up to?

Mr Delzoppo: We do not and have not in recent years. There was some work done—I think it was around between 1999 and 2003—by Dr Mark Reed where some crocodiles were moved and tracked. I think there was one crocodile that was taken from the east coast to the gulf or vice versa and it returned in a relatively short period of time. It travelled several hundreds of kilometres and came back. We have no proposal at the moment to do tracking of that nature. If it comes through our research that it turns out to be desirable and useful, we would do that.

CHAIR: Are your current crocodile management practices based on and developed in conjunction with researchers from institutions like the University of Queensland?

Mr Delzoppo: In terms of capturing and so on?

CHAIR: I am talking about the general practices that you implement in terms of your overall crocodile management program. Are they based on evidence?

Dr Clouston: As you know, we have not had the monitoring numbers, but we have consulted widely. We consulted with Australia Zoo, Surf Life Saving and the universities while we were developing that plan.

CHAIR: You have a process for monitoring research and incorporating new findings into the practice?

Dr Clouston: As much as we can.

CHAIR: We have heard some concerns raised by Surf Life Saving Queensland. Do you feel that there is scope for greater integration and cooperation between the department and Surf Life Saving Queensland?

Mr Delzoppo: I am glad you raised that. I appreciate that the submission tabled by Surf Life Saving mentioned that there is a good relationship with our staff and about the fact that their brochures mention crocodiles and so on. We are working on, as I mentioned last time I was here, a phone based app or a computer based app where people can report crocodiles and get feedback more quickly. Through that process, which we can expect to have finished by the end of this financial year, we can have a mechanism where automatically there is a crocodile report or something that is of relevance to a particular Surf Life Saving group, like near a beach or reserve, so that we can make sure that information got to them straightaway and we can engage with them. We do engage with them now by phone and email and so on, but if through that app process we can have some automation I think that would be really good. The same thing could be done in communicating with local government.

CHAIR: Do you believe that your current management practices would accommodate the concerns raised by Surf Life Saving Queensland or the desire of that organisation which is to remove crocodiles from areas where they are patrolling?

Mr Delzoppo: Yes, certainly. That is why we took feedback from Surf Life Saving Queensland and local government, such as the Douglas shire, and changed the zoning of each one of the noted swimming beaches in Queensland so that we had greater ability to remove a crocodile when it was seen there. We do listen and we do work with them. They have the same interests as we do—to provide safety for people who swim in those patrolled areas.

CHAIR: I would like to thank you very much for coming here today. I do not think there were any questions taken on notice. That concludes today's hearing. Thank you to all of the witnesses who participated. Thank you to our Hansard reporters and our committee secretariat. A transcript of these proceedings will be available on the committee's parliamentary website as soon as possible. We will be holding a further hearing for our inquiry into the Safer Waterways Bill in Cairns on 30 October, and that will be followed by some inspections and visits in the Northern Territory. The hearing in Cairns will be open to the public. I declare this public hearing for the committee's inquiry into the Safer Waterways Bill 2017 closed.

Committee adjourned at 12.29 pm