STATE DEVELOPMENT AND REGIONAL INDUSTRIES COMMITTEE

Members present:
Mr CG Whiting MP—Chair
Mr JJ McDonald MP
Mr MJ Hart MP
Mr RI Katter MP
Mr JE Madden MP
Mr TJ Smith MP

Staff present:
Ms S Galbraith—Committee Secretary
Mr B Smith—Assistant Committee Secretary

PUBLIC BRIEFING—RESEARCH INTO MANAGEMENT OF FERAL PIGS (SOUTHERN QUEENSLAND LANDSCAPES)

TRANSCRIPT OF PROCEEDINGS

MONDAY, 29 AUGUST 2022

Brisbane

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The committee met at 11.31 am.

MARSHALL, Mr Darren, Team Lead, Vertebrate Pests and Wildlife Management, Southern Queensland Landscapes (via teleconference)

McDONALD, Mr Paul, Chief Executive Officer, Southern Queensland Landscapes

STEPHENS, Ms Leanne, Coordinator, Business Operations, Southern Queensland Landscapes

CHAIR: I declare open this public briefing. The purpose of this morning's briefing is to hear more about the research conducted by Southern Queensland Landscapes into the management of feral pigs. I take this opportunity to thank Southern Queensland Landscapes for meeting with the member for Lockyer and the member for Ipswich West at a committee visit in Roma earlier this year and for coming along to brief the full committee on the work in their area. I invite you to brief the committee, after which committee members will have some questions for you. I remind members that we do have the Animal Care and Protection Bill in front of us. Today we are getting information about research into this issue. We will pay special attention to not anticipating debate on the issues raised in that bill. I make that general point.

Mr McDonald: There are a couple of preliminary things and one is an explanation of why we are sitting here. As a company, we have been doing research into feral pigs for about six years. That research is based around Iridium collars. We trap and put those collars on the pigs. From that data we have learned an awful lot about how the pigs work, what they do with risk, what they do not do with risk, what their weaknesses are and so on. Part of the work we are doing also checks the efficacy of current control methods. CSSP is one of the key control methods that landholders are relying on at the moment. It was put together and invented by a fellow near Goondiwindi. It is well used at the moment. The other control method is 1080, which is widely used in baiting programs. 1080 has potentially a limited life simply because it is a neurotoxin, it takes 23-odd hours to take an animal down and the last couple of hours are not pretty to watch. Those are some of the issues around it.

The work that we have done with the Iridium collars is in most of eastern Australia now so it is not just in southern Queensland. Lately Darren has been doing some work with Australian Pork Ltd to start to look at some of those control methods. As a general introduction, that is why we are sitting here: we have developed a fair bit of knowledge through the work that Darren has been doing as part of our company's suite of offerings.

Moving on, when it comes to the pig itself, we have data that shows how they behave during the different seasons. Their biggest weakness is that they must wallow every day so they must get to water. With that comes a great weakness. For example, when we do trap the animals we have to keep them wet during the time that we have them to put the collar on and so on. There is a lot of weakness around that. The other important thing to do with the pig is that it is an animal that is very much risk based. It understands the risks to it and its survival. It breeds almost second only to rabbits. The animals do breed very quickly. At the moment, I think, all members will be told by people in their electorates that there are a lot of pigs around. They are dangerous for a lot of reasons. They spread a number of diseases—brucellosis, phytophthora. They also spread things like lumpy skin disease and foot-and-mouth disease. They are a biosecurity issue, which is why this gets to be a bit more complex than just a simple discussion about the pig.

Where the CSSP plays in that is that it is accessible to most landholders. It is very much a here-and-now treatment. It knocks the pig down very quickly. The other thing the treatments require is that they need pre-feeding. Really, the crux of this whole issue is that the pre-feeding is potentially costly. You need to be pre-feeding for at least a week. The reason that you need to bring all the animals in is so that you can hit them with the bait and have them in an area where you can do aerial shoots. That is my introduction for committee members. I will invite Darren to add anything to that overall introduction.

Mr Marshall: I think it best if I wait for people to ask questions and go into more detail on the questions that people may have.

CHAIR: I will lead off. I am not going to touch on the issue of poisons. I will talk about the research into feral pig home ranges. From your research, what is the thing that you think you have added or established that has not really been seen before? What has your research illuminated for the first time in Australia about the behaviour of these animals?

Mr Marshall: The biggest part that the research highlights is that it dispels the myth of how far feral pigs travel. At every site that we have, there are home range and core home range of where feral pigs spend their time in the landscape and we break that down seasonally. That really targets in the landscape where land managers should be implementing their control methods, whatever they are. Most of those control methods are based on people's beliefs. They are based on where the pig hunter sees the pig. They are based on where people see pigs and where they think they are. This actually gives those land managers the facts about where those animals are most likely to encounter a bait station or a trap or where the helicopter should fly. Without going into those control methods, it really targets where they should hit them.

The reason that is so important is, as Paul touched on, you have to knock out 75 per cent of the population within a three-month period because of their breeding rates. Otherwise, the pigs repopulate because they breed faster than people kill them. That leads to the second point I would like to make about the importance of it. It is not just the ecology of where the pigs go. The bigger thing for me is that this engages the community. This motivates people to actually participate in control.

In my opinion, in a lot of the places where feral pigs are an issue the biggest problem is how you motivate land managers to work together to do it. It depends on your enterprise. You will get one or two land managers who are busting their necks and doing all that they can to control the feral pigs, but if their neighbours have an enterprise that is not impacted by the pigs usually they are not doing anything. For all the reasons that we just spoke about, obviously that does not work. For me it is targeting where we can control pigs in the landscape and motivating people to participate in those control measures.

CHAIR: Obviously, what is important is that your findings are countering what has been perceived as knowledge. You now have a scientific base for saying that this is the action that we should take.

Mr McDONALD: This is probably a question for Darren as well. Pigs spend 50 per cent of their time in the home range but what is that range? How large is the home range?

Mr Marshall: It will blow you away. A sow's core home range is usually the size of a football field. A bore's core home range is usually only about three square kilometres. It is very important for me to make very clear the difference between home range and core home range. Is it okay for me to spend a minute to do that?

CHAIR: Absolutely.

Mr Marshall: The home range is where you spend 90 per cent of the time. If I work in Toowoomba and I have a farm at Glen Innes and I travel between them, that where I spend 90 per cent of my time. If I go to Sydney then that is in the last 10 per cent so that is not counted in my home range. My home range, where I would spend 90 per cent of my time, is simply between Glen Innes and Toowoomba or Warwick. My core home range is where I spend half my time—that is, the bedroom, the kitchen and the office. Paul is having a chuckle because I am never in the office. That is what it is. The core home range is where you are most likely to encounter me. It is either at the office, in the kitchen at home or in the bedroom at home. That is why it is so important.

The core home range of a sow is usually as big as a football field. The core home range of a bore can be up to only two, three or four square kilometres. That depends on the resources that those pigs have at their mercy, but that core home range is very typically much smaller than people think. A lot of what we hear is that the pigs all live in the national parks or the mining company land and travel 20 to 30 kilometres a night to my wheat crop where they eat the wheat and then travel 20 or 30 kilometres back. After collaring over 400 pigs, I am pretty confident in saying that in most landscapes that is just not correct. Again, we have pinpointed those areas. If we can get people motivated to do it then we should be able to have an impact.

Mr McDONALD: I understand the core home range and the confidence associated with that for the benefit particularly of targeting control. Using your scenario of the Sydney to Glen Innes situation where going to Sydney is 10 per cent, what is that range? Do you have a sense of that from your collaring efforts?

Mr Marshall: We have had one pig out of 400 travel 50 kilometres. Of the other 300 or 400 pigs, if a pig moves 20 kilometres I am pretty shocked. If they do that movement, it is an excursion and they come back. They very rarely do that movement and then re-establish. They do not do that movement and then re-establish a new core home range. They go for a holiday, just like I would to Sydney and I'd then come home—as quick as I could.

Mr McDONALD: Is the motivation for that breeding or resources?

Mr Marshall: It is a mystery. It is the next question. What drives movement? Do pigs follow stock? Do they follow sheep? Weather patterns? Fishing people look at barometric pressure. They look at wind and all of those things. What you have just asked is the next evolution of what we have to get the people who analyse our data to look at. I am sorry I cannot answer that question accurately.

Mr McDONALD: That is okay, Darren. What is the ecology? Elephants have a matriarchal society. What is the nature of feral pig society? What do they do in terms of herding? What is their motivation?

Mr Marshall: You have just nailed it: they are matrilineal. You will get three types. You will get the mothers, sisters, aunties and daughters. I call them the factories. They are the core breeding groups. There might be a couple of bores servicing those core breeding groups. What happens then is that as the piglets grow up a bit and the bores start looking sidewise at their cousins, they have to go. What you then get are bachelor groups. They are usually younger bores of the same age and you can get up to 10 or 20 bores all running together. The final type that I find is just those single old lone bores that do a lot of roaming. They are the ones that cover the bigger distances.

Coming back to the ecology part of it, there are two arguments. If we just wanted to look at the ecology and where we should control feral pigs, my opinion is that we should be targeting those matrilineal female groups. They are the factories that we should be knocking out. I spoke before about motivating the community. Nobody rings me up and says, 'Where's the 40-kilo sow with 10 suckers?' Half the community do ring me up and say, 'Where's the 120-kilo bore?' There are two sides to it. For engagement, we need to collar those big lone bores; for targeted control, we need to collar the factories.

Mr McDONALD: In terms of the damage that feral pigs will do to domestic stock, I have seen terrible photos of lambs being ripped apart and domestic animals being predated by pigs. Hunting or killing feral pigs is an ugly business, but so is the damage that the feral pigs do. I congratulate you, Darren, and South Queensland Landscapes on the investment in the research. Can you assist us or provide some clarity around the impediments to current control measures? My background is in local government. I know 1080 is a good thing, but it is only available when programs are run. A farmer cannot go to the shed and grab it to assist in control measures inside that football field to get those sows. Can you offer any suggestions for us?

Mr Marshall: The biggest impediment is getting enough of the community to participate in those fantastic coordinated control events that local government run. The second biggest issue is that my understanding is that local government is moving away from that and 1080 now is being able to be bought at Elders or Landmark—those places—individually by landholders. In my opinion, that is tragic because what that means is individual landholders will do control on their individual properties. We have just said that this has to be done at a landscape scale. When local government do it, they motivate the community: they go out and they get everybody to come together. They have a much better chance of getting a larger number of landholders working together. Now that it is available individually, I personally see problems.

Mr MADDEN: First of all, I would like to thank you very much for coming in today. This is an extremely important issue. Mr McDonald, you raised an issue in your opening address that I do not think enough spotlight has been put on—that is, the spread of soil-borne diseases by pigs. You mentioned Phytophthora, which is an incredibly bad disease for avocados, but, likewise with Panama disease for bananas and white rot for onions, it can render whole properties unusable. Have you done research on individual situations where there is evidence that one of those diseases or other soil-borne diseases has been taken into an area by pigs?

Mr McDonald: It would be fair to say that Darren is working with the western Wakka Wakka people up on Bunya Mountains right now with this very issue. The pigs up there have multiplied tremendously with all this beautiful weather, and the result is that Phytophthora is now being spread by the pig across the Bunyas. The First Nations people up there are pretty concerned about it. As I say, we are working with them and Western Downs Regional Council to see what we can do to knock them off. They are a bit tricky in that there is a heavy canopy cover and, of course, the best practice control methods involve an aerial shoot, a baiting and then a second follow-up aerial shoot. If you do not have clean canopy cover, you cannot do the aerial shoots. Those are some of the issues.

Mr MADDEN: So Phytophthora is a disease that can kill Bunya pines?

Mr McDonald: I do not know whether it will kill Bunyas because their root system is different, but there is an awful lot of standard rainforest trees up there which the Phytophthora will take out—strangler figs, those sort of things.

Mr MADDEN: It is introducing it as a soil-borne disease into an area which was not there before and will take out certain species?

Mr McDonald: Yes, definitely.

Mr KATTER: I was going to offer an answer to the 20-kilometre, 50-kilometre pig: it probably had some enthusiastic people in pursuit. The other thing I thought we should end on is that I think we need a parliamentary tour on this one, Mr Chair, and pig shoot. Sorry to waste your time. I do have many questions. Do similar dynamics apply to the gulf and cape? I imagine it would.

Mr McDonald: It does, Robbie. In fact, at the moment we are doing some work for APL up in the gulf. Darren has done work on the cape. We have even started doing a bit of work on one of the islands in the Thursday Islands group.

Mr KATTER: I love hearing this stuff. It would be great if we could get more efficient in this manner. To offer another comment, last year an old bloke up in the gulf said that in the drought the roos will die, the cattle will die—everything dies—but the pigs always survive. They can live off the meat and the bones and everything. They just never seem to fall back in numbers. We have a real problem. You probably have a few take-home messages today, but what is your main one? Do we need all these tools to form part of the mix in trying to address this, and we need to be more strategic in how we apply our effort?

Mr McDonald: Very much so, and we need to look more at that control end because, quite frankly—and Darren can give you the detailed numbers—there is no successful control method in operation at the moment. Even when we do those landscape-scale things, it works well but we do not knock them out, and that is the issue for us. Again, Darren's team are trialling a few different methods, using infrared scopes and those sorts of things, which make the chances of the pig getting away much harder.

Mr KATTER: Do you know anything about the interactions of the feral animals? You know, you pull your finger out of this crack in the dyke and then another one opens up here. Talking about feral cats, do you know anything about interaction or do you get more cats when the pigs are gone, or when the dogs are gone you get more pigs?

Mr McDonald: There is very little research on that. There is very little research on the effect of these things on threatened species as well. It is an area that we are looking at. We have started collaring the dogs because there is a lot of misinformation around about the dogs, so we are trying to learn about what exactly they do, and we have started collaring cats with a couple of the Santos mining company types that are investing in that. At the moment, it is early days. I do not think we have any conclusions with those animals yet, have we, Darren?

Mr Marshall: I am sorry, it is a bit hard to hear. If that is the mesopredator stuff, it is like the bikie gang: if the bikie gang goes to one pub, I go to the other pub. If the bikie gang comes to that pub, I go to the other pub. Dogs have no impact on cats; cats have no impact on dogs; dogs have no impact on pigs definitely because of their breeding rate. None of these ferals have any control over each other. I am sorry if that was off track. I had a bit of a—

Mr McDonald: No, that is good.

Mr KATTER: That is fine.

CHAIR: I think it is a great metaphor. They keep out of each other's patches, essentially.

Mr Marshall: Yes.

Mr McDONALD: I have another question, but I do not know if Darren is doing a doctorate in pig control or analogies and metaphors. We have never had a witness give so many analogies and metaphors before.

Mr McDonald: Your favourite witness of the year.

Mr McDONALD: I am seeking a little more clarification around the pre-feeding program. I recognise that it could be up to seven to 10 days. Can you talk us through the specifics of that? What do you use for pre-feeding program? What does that look like?

Mr Marshall: It is very essential to free-feed. If you do not free-feed, you do not kill the whole population. I can give a quick example at Goondiwindi. After four nights we had 80 pigs free-feeding across 15 sites. The landholder said to me, 'This is not a feedlot, Darren. Poison them. Stop feeding

them.' I said, 'Let's just hold on. Let's go to our seven to 10 nights.' Over that same 15 bait stations, we went from 80 pigs to 178 pigs. I said, 'You have to take out 70 per cent of the population.' If the landholder did bait on night 4 and killed his 80 pigs, he would have had no impact on that feral pig population. That is why free-feeding is so essential. You have to get all pigs in that home range come into your food source before you turn it toxic. If there is one message in controlling feral pigs, that is it: free-feed, free-feed, free-feed.

Let me go to the next issue on that. If you live out west and you have 100,000 acres where a lot of the pigs are, in our Paroo system, in all of those areas, it is just not practical for a landholder to cover all of his country and free-feed those sites. If he did that, it would take him all day every day just to free-feed. That is why those landholders often do not free-feed and have relied on (inaudible). I think we said at the start that we are not going to control techniques, but I think that is important. If you cannot free-feed then they drop back to these other measures. The problem is: we are not hitting the 70 per cent that we need to hit if we do not do that correctly.

Mr McDONALD: At each of those 15 bait sites you mentioned at Goondiwindi, what sort of quantum of feed are you putting at that? Is that grain or—

Mr Marshall: There is a rule of thumb that you double the grain every night until there is some left over. Of course, in our research we use cameras so we can tell you exactly how many pigs are feeding. We had between 30 and 40 pigs feeding at most of those sites. With that general rule of doubling the grain and putting it in lines, not in piles—because if you put it in piles, only the dominant animals will get it. You need to put it in lines and you need to double it every night until there is some left over. Mate, we have been known to put out half a tonne at each site. The landholder says, 'What are you doing? This is costing me a fortune!' Well, make your choice: we either do it this way and kill them or they go into your wheat crop and eat it anyway. You can see the scale of it. Again, what will often happen is a land manager will put out a bucket of grain, it will be all gone, he will put out another bucket of grain, it will be all gone, and then he will poison it. He has poisoned four pigs out of 40. You must double it every night, no matter how much grain it takes, so that you know everyone is getting a feed and that everyone will get poisoned.

Mr MADDEN: Mr McDonald, in your opening address you did not outline your funding arrangements. Can you outline what funds this excellent work that you are doing?

Mr McDonald: This particular work with the pigs—I should say we are a community owned company limited by guarantee and we deliver a number of services for the state government through the natural resources investment program which has just ended; the new program is not yet running. We deliver a number of issues around grazing futures with the Department of Agriculture and Fisheries. Federally, we deliver the regional Landcare program for the Commonwealth, and we are also doing several things—because essentially we are the Murray-Darling Basin in Queensland, so we are delivering fish-friendly water extraction work and we are delivering an extensive fencing program around riparian habitats. That is essentially it.

This money is contract money we earn through direct contracts. We do work with the New South Wales government and we have done some work with the Victorian government. In Queensland, a lot of the research is around mining companies that need control services and those sorts of things. It is all contract based work. Because the program has been running so long, the dataset that we have there has been analysed so that we can tell where the animal is in each season and how, therefore, to knock it off. The other part of that data we are yet to reanalyse for a whole host of other questions. For the one that you asked earlier as a committee, we will probably have a play with that.

Mr MADDEN: Is there any funding from local authorities or partnerships with local authorities?

Mr McDonald: We have extensive partnerships with local governments. I think our latest coordinated baiting program was with Paroo shire. We work with all our shires quite closely.

Mr McDONALD: Thank you very much, Paul, Leanne and Darren for coming along and giving the committee a brief. It has been very rich information and I can see the value of the research. Are you able to share the cost of this program and can it be replicated across the state to achieve some really great outcomes? Are there any other suggestions for the committee?

Ms Stephens: It is certainly something that can be scaled up and rolled out across the community. The research that Darren has been doing is around not only the efficacy of control measures but also the human element of getting people on board to undertake that collaborative work. It is certainly something that we are looking to move towards more so as a service offering, as Southern Queensland Landscapes, based on the research that Darren has been doing.

Mr McDonald: At the moment, essentially we are spending about $700,000 on the program as it stands. The Iridium collars are $3,000 each, so that is a big hit. We have looked at other technologies and we will continue to look at other technologies to reduce that. The other costs are in the team that do all of this work; we have a team essentially of three folk who are full-time on this.

CHAIR: Thank you very much. That concludes this public briefing. Thank you to everyone who participated. Thank you, Leanne, Darren and Paul. Thank you to our Hansard reporters and our secretariat. We have no questions on notice. A transcript of these proceedings will be available on the committee's webpage in due course. I declare this public briefing closed.

The committee adjourned at 12.02 pm.