



IRD 119 841 372

1 Brisbane Street, Sydenham,
Christchurch 8023 NZ

Phone +64 (0) 3 366 9671

Email nzclient@epiqglobal.com

Event: Weston Lea RMA Hearing Excerpts

Date: 8 May 2019

Audio Recording: "Weston Lea RMA Hearing - 8 May 2019
Part of recording missing starts at
4:30pm" - Transcribed from start to
00.17.05

Before: Commissioner Wasley (Chair)
Commissioner Lovell
Commissioner Knott

Witness: Dr Rebecca Stirnemann (on behalf of the
Riverlea Environment Society Inc) - bat
ecology

DR STIRNEMANN: I would say that they would be pushed. Just based off of where they've been pushed out (several inaudible words).

COMMISSIONER LOVELL: Effectively, are you saying that I'm looking for that (several inaudible words)? Are you effectively saying that? Would that be (several inaudible words) with the lots all down here?

DR STIRNEMANN: Yes.

COMMISSIONER LOVELL: Your score on here and you were previously saying that it was unlikely that the bats would use --

DR STIRNEMANN: Well, I am actually saying it is experimental. We actually don't oppose the idea. They could potentially use it but they could not. In which case, all they have left is one way. You have left them with into one road and it's a longer road to get to their maternity roosts and a longer road to get to their feeding area. There are risks and that is why you need to provide that extra feeding area.

Like I said, I think it could be designed better, that extra feeding area, and is it was not designed in a

collaborative manner by experts which is what you want. I think it was just, you know, I think Georgia and potentially Andrew put it together but, you know --

MALE SPEAKER: I think you have just got to be careful about speculating who put that together.

DR STIRNEMANN: Okay, I am just assuming basically. It was put together by not all of the experts but I would use all of the brain power of all of the people who know what the species is doing and put together something which would be optimal for the species.

COMMISSIONER LOVELL: One another issue, pest control. One of the questions I have of the (several inaudible words) was around pest control and this other (several inaudible words) which has 20 years of pest control contemplated in this programme. Pest control is contemplated under the (several inaudible words). One of the problems faced with us was that a method of pest control where artificial roots (several inaudible words) in terms of that being effective.

DR STIRNEMANN: In terms of roosts, Kerry is really the person you want to talk to. She has been more involved with that.

From my knowledge of them, you could potentially try it but from what I understand, the bats took five years to use them or something and then they had some issues with possums trying to get in and so you have potential impacts if you can't ring a tree with metal to protect it or if you have got pests going into it.

Potentially, they could be good but, again, it is a brand new thing, no one even thought that they would use it, and now maybe two people used it and 90 per cent have not been used. We have no idea why these other ones are not used and if they would put any up if they would be used. Maybe it takes ages for the bats to find them but also maybe they do not like them as much and maybe they are being forced to use them now because there are less options.

We just know that what they have got in Hamilton is already permitted and we know that based on the research that they are utilising more of the natural roosts repeatedly than they do in places like Fiordland.

COMMISSIONER LOVELL: (several inaudible words) management and I know the (several inaudible words) but I am sort of taking a step back and looking at the base assessment. Ms Cummings

referred to a 40 per cent (inaudible) based on the work that she had done in terms of acoustic assessment and that roughly equated to 61 bats in the area. Is that a normal size grouping and would you consider that in terms of her evidence, an appropriate place assessment to start in terms of information heard before for bat management?

DR STIRNEMANN: I would be nervous to -- without looking at that underlying data based on which she is basing that number on, I would be nervous to draw a conclusion as to how good an estimate it is. It sounds very precise without any standard errors. Usually, I would expect some sort of plus or minus 20 or 10, something like that and, yes, I do not know how she has reached that number.

COMMISSIONER LOVELL: One final question, I note (inaudible) in terms of the (several inaudible words). The evidence of a (inaudible) in terms of the costs associated with the ecological management and monitoring of things, is that not sufficient as compared to a (inaudible)?

DR STIRNEMANN: This is where my expertise is perhaps not sufficient. Yes, so I suppose Bruce knows much more about that sort of thing and he has produced a lot of scientific papers

looking at analysing compliance and all this sort of thing. I do not know how well that would work instead of a (inaudible).

MALE SPEAKER: Permission or not?

COMMISSIONER WASLEY: Thank you.

COMMISSIONER KNOTT: Just sort of picking up on your figure 1, I wanted to understand the relationship between the (several inaudible words and your figure 1 in your evidence which I appreciate there is a (several inaudible words) all different but it is still sort of helps me with the points that I was looking at. In terms of that figure 1, do you know where the closest houses are on the Amberfield site on that cross section or approximately there?

DR STIRNEMANN: I suppose that depends where --

COMMISSIONER KNOTT: Yes, I am not sure where the section would be.

DR STIRNEMANN: This is right across from Hammond but I suppose it depends where it is. If you can tell, we are 100 metres (inaudible) so I am not too sure if that is where they are

planning to put in 100 metres of vegetation. I personally was just thinking of it in terms of if I was to design an area based on buffering, what height I would putting it and how I would be putting it in in order to shelter that Hammond Bush area given its height at 27 to 31 on one side.

COMMISSIONER KNOTT: Yes, that is fine. That is a secondary issue anyway in a way. Then looking at Hammond Bush, it is physically much closer to houses on this side of the river than it would be to houses on the Amberfield site. From your perspective - and I appreciate the boundary was different and it would be good to hear what you say - why do you think Hammond Bush works when it is so close to housing, whereas you are concerned about the impact of the Amberfield on the other side of the river upon it?

DR STIRNEMANN: I suppose there are a couple of things. One is that Hammond Bush is like one of your older Hamilton boroughs so it has actually got high vegetation so it is shielding the inside area like that tunnel that they like to whiz down. Then you have, I suppose, as you will see when you go there, even the properties have a lot of big trees behind them and then you have kind of got this effect of that elevation that kind of tucks it in there so it kind of provides this natural darkness because

the houses are up here and the bush is down there. That land form has to really be considered when you think about bats because of that shielding.

COMMISSIONER KNOTT: Am I right in thinking then that one of the important things you will see on the planting on the application site is that it is shielding the light towards Hammond Bush? In terms of other areas that you know of where bats exist, do long-tail bats behave differently to other bats and other specifics?

DR STIRNEMANN: Yes.

COMMISSIONER KNOTT: In other locations where you know long-tail bats exist, are there other circumstances where you have urban residential development a closer distance to or with a similar relationship to this? Bearing in mind people are talking about the aiming of these lights which are very directional et cetera and not shining towards the bush specifically, do we need the level of buffer planting to further shield the light that we are talking about or are there circumstances where the two things (inaudible) successfully?

DR STIRNEMANN: What we have seen, I suppose, is all the studies have shown that they are not crossing these urban areas unless there are these darkish tunnels for them or there is open pasture or something which is not lit up. Yes, they have recently found it in Rotorua as well. I think Kerry just found them over there but, yes, to me, that buffer is critical.

COMMISSIONER KNOTT: For instance, you saw the plan up there so all of those dark green parts which are the areas of the greatest concentrations of bats (inaudible) I suppose. Those are the areas where they are mostly picked up. I guess some of those areas they are looking at and which are adjacent to urban areas must have a similar relationship to existing residential areas as Hammond Bush will have to Amberfield.

Do you see what I am saying? We have Hammond Bush shown here and we have a concentration of activity around it but in other areas where there is a concentration of activity, are none of those other areas close to housing in the same way that this would be?

DR STIRNEMANN: We have heard that they have been squashed up in the other end of Hamilton. Now they are constrained to this side so we can see that they are squashed out, I guess, and

which areas they are utilising and which areas they are not. They are not crossing certain areas like, you know there is a bush near Fiordlands which is quite a good colony and they are managing to get there.

I suppose it is if you put in too many barriers in terms of their movement, then they cannot access the sites anymore and I suppose it is how many pressures will have to go in before the population tips and that is one of those risky things, I guess. Yes, so it is kind of like to reduce risk, you really want that shelter, that thing that is pretty much in an area which is down to the longer crops or that will affect their ability to use another area.

COMMISSIONER KNOTT: Is there two issues there then? We have these areas which are identified as bat core areas which are presumably those where there is a high likelihood of bats using them effectively or will come to use them?

DR STIRNEMANN: Like I said, there are a few issues with this data. One is that will be limited to a small number of bats and the bats which are radio tracked (several inaudible words), they were all crossing the site where the development would be and they would (several inaudible words).

COMMISSIONER KNOTT: What I was trying to do was to distinguish between the two issues. One is whether development of the site will impact on their use of Hammond Bush and looking at this, it seems to me there are some core areas here that seem to be next to uses that would produce light because it seems to me, hearing the evidence, that light is the big issue.

DR STIRNEMANN: It is a (overspeaking) factor, yes.

COMMISSIONER KNOTT: That is what I am trying to understand and then the second issue for me is I recognise what you say in terms of (several inaudible words) to develop and urbanise, they may want to cross it. That then goes then a lot to the evidence we heard from Dr Clarkson about the significance of the edge of the river and the gully as a viable alternative route to where they have always gone to versus crossing over the side which is now urbanised (several inaudible words). At least we know if they do not use that, they have an alternative so I think, to me, it is the two issues.

DR STIRNEMANN: Yes, there are definitely two issues. One is to make sure that they are utilising that area still or utilising those other four areas like the Hammond Bush and then the other

one is the effect on the site. Yes, so I definitely separate them.

COMMISSIONER KNOTT: Am I right in saying that if we look at this technically, if we can be content that the Hammond Bush is not being so disturbed by light that they do not want to go there anymore, that is ticking one issue off, is it not, that one?

DR STIRNEMANN: It is not only Hammond because they are using that river pathway so it is more than Hammond because, otherwise, you lose that potential (overspeaking)

COMMISSIONER KNOTT: That is what I mean. It is protecting the river as a corridor for them.

DR STIRNEMANN: Yes, exactly.

COMMISSIONER KNOTT: There is that flight and ones like that.

DR STIRNEMANN: We have the three areas we know are critical. Hammond and then the river and then there is the gully because they whip down that river and then they have those alternative routes, the main site further down and then down (inaudible).

It is about accessing all of those areas that they need, otherwise we are cutting their road access basically.

COMMISSIONER KNOTT: Yes, so it just seemed to me then that, ultimately, you still are convinced that the planting that has been suggested on the site is sufficient to screen Hammond from the light.

DR STIRNEMANN: No, I do not think it is sufficient.

COMMISSIONER KNOTT: Also it is sufficient to protect the pathway.

DR STIRNEMANN: Yes, and so there is, I suppose, a few things about that. One is the amount of time that is required before the height of the vegetation gets to what it needs to be and then so that is providing the buffer. Then there is the consideration of the width of the buffer which I also mentioned.

COMMISSIONER KNOTT: Yes, that is where my question came from in terms of those other locations we see there which are identified as corporate areas where some of it seemed (several inaudible words) and we are interested to understand how well buffered they are by planting. Given it is quite significant, this is of

course the river to the closest stream, the houses being close by.

DR STIRNEMANN: Yes, so as they are modelled, and you can see which areas that they prefer based on the modelling. It does state what they use. It says what they prefer in the model adaptively. Yes, but I would be also a bit careful about interpreting bat numbers. I think it is a limited number of bats and they are probably all captured at the same time. Yes, so it is kind of difficult to explain.

COMMISSIONER KNOTT: I think that it is from me. Thank you.

COMMISSIONER WASLEY: Any questions, Ms (inaudible)? Thank you, Dr Stirnemann.

DR STIRNEMANN: Thank you.

(adjourned)