



## **Horses and bushfire – what do we know?**

Chair: Malcolm Hackett OAM

Presenter: Dr Kirrilly Thompson

### **Chair**

We're going to begin with a presentation from Dr. Kirrilly Thompson from the University of Newcastle. Later, Kirrilly will be joined on the panel session by Dr. Andrew McLean of Equitation Science International and Dr. Chris Heislars, a highly regarded and very experienced veterinarian.

As well as being a researcher Kirrilly is an experienced horsewoman and I'll hand over to you.

### **Kirrilly Thompson**

Thank you Malcolm for the introduction and thank you for the acknowledgement of country. I come to you tonight from the very beautiful Biraban country in Central Coast New South Wales.

First of all I want to say a little bit about my motivation for talking tonight which is basically to provide motivation to people listening. We all know how to get information it's at our fingertips with the internet. I'm not going to tell you everything you need to know tonight about protecting your horses from natural disasters. What I do hope to do is to share some of my personal experiences with bushfire and share some findings of some research I've done in the hope that motivates people to get a little bit more information for themselves to take a little bit more action and to improve their own preparedness.

With that in mind I'd like to take you through some of the fire experiences since 2015. Since 2015 I've experienced six fire related events. Through this whole time I was the owner of three horses in South Australia that lived across two different properties. I used to like saying I had an old one, a young one and a bung one. The old one would be on a different property because she had different needs. I didn't need many facilities for her, so she would be on a separate property usually within 20 or 30 minutes of the other two horses. At the time I was sad they weren't all together but when I started experiencing these fire events I was glad because if I had three horses in one location would have been very hard to move them all at the same time because I owned, and still own, one double horse float.

The first event I experienced was in January 2015 - the Sampson Flat fires. To be honest I can't remember how I became aware there was a fire coming towards an agistment property where I had two horses, but I remember driving there with my float to pick the horses up. One horse was fairly young and I was concerned it would take her a while to load and somebody turned up with a float. It turned out I knew the person. She was just driving around looking for horses to collect, she'd seen on Facebook there was a fire and she was doing the best she could to help. That was the start of my experience of how social media can impact fires.

At that time in South Australia that was a very common approach and it still is a common approach. I'm also the Vice Chair of the Horse Federation of SA and Horse SA who built a lot of capacity and knowledge amongst the local community. So even just across these six fires I've seen the behaviour of horse owners really improve and streamline.

In April 2018 a fire actually started on the property where I was keeping two horses. This was a different property. I was in the middle of a Horse SA meeting when someone messaged me a picture of the fire scan of the fire area from a CFS website and said, "Isn't this where you keep your horses?" I logged into Facebook and the property owner had put up a sign saying, "Help, my property is on fire."

I drove in the direction of the fire and parked in the cemetery car park nearby. I knew enough to know not to block the roads. I sat there and watched on Facebook people messaging the owner of the property saying, "We're coming, we've got floats." And I spent a lot of my time saying to people please do not congest the roads, the CFS need access to enter. That was a really interesting experience for me because as you'll find out from my presentation as you probably already know, early evacuation is the gold standard of advice, but what happens if a fire starts on your property?

In April I moved the horses to another property and a fire started one road away but was put out fairly quickly.

In December 2019 we had some really horrific weather conditions in South Australia, We'd had fires on Kangaroo Island and a warning of a catastrophic fire day. I evacuated two horses the night before the catastrophic day down to the Magic Millions facility in the city. That's no longer an evacuation point and Horse SA have secured funding to establish a new safer place of refuge and evacuation bespoke facility for horses at the Murray Bridge Racecourse.

That was my experience of early evacuation. What I learned was how stressed I felt evacuating because of a fire but not in the face of a fire. That surprised me, I was a little bit shaky as I was driving and I could feel the drama so to speak.

In January 2021 I took the opportunity of the long weekend to go to the beach and enjoy myself. I walked into the water, I turned around and there was a massive cloud of black smoke, I got on to the internet. It was the day of the Cherry Gardens Bushfires. Because I'd gone to the beach with my boyfriend we took his car.

For me to get back to my horses about two hours away we first had to drive back to his house where I could get my own car which was a towing vehicle. I didn't have horse shoes or anything with me as in suitable footwear. I had nothing to prepare me for going to evacuate my horses.

My lesson from the event was in South Australia and also possibly here in New South Wales in summer I should always be in my towing vehicle. I should always be ready to go even if there's not a catastrophic fire warning because it took nine hours for me to get from the beach to my horses because by the time we drove to my boyfriend's house, swapped cars and headed towards the agistment property which was cordoned off. The property was in the zone that SES was not letting people enter and I was stuck literally one road away from my horses at a cordoned area. And it wasn't until we found a back road route to get to the property that we were able to evacuate the horses.

I then moved to New South Wales and within one or two weeks of moving here there was a controlled burn in the scrub land backing onto the property I'd moved to. The controlled burn then went out of control.

I've been followed by fires and had various different experiences, I didn't evacuate from the out of control burn because obviously there were emergency services in attendance. There was no communication from the local brigade or the state Facebook channels but I knew a volunteer from the brigade and was in contact with them to get advice about whether I should stay or go.

This photo shows the day of the Cherry Gardens fire. And what you can see this is the agistment property where I was keeping my horses at the time. What you can see is one horse float left because other people had been able to evacuate their horses. That's my horse float. This photo was taken while I was blocked at a cordon and unable to get into the float. The float had a locking bar device on it. The keys were in the shed and I had told friends to take the bar off, I can't remember if that happened or not. The other vehicle you can see is from a friend who kept her horse at the same property. She did not have a float, she took this photo while she was on the property preparing to stay and defend with the property owner.

By the time I got to the property after bypassing the cordon this was our view. This is what we were dealing with. At this stage we were very lucky the wind changed direction. This fire got within 6km of my horses. I was then faced with another decision - do I continue to try to evacuate my horses knowing the fire's changed direction? I evacuated the horses to a property of someone I didn't know who had horses. I didn't know who had fences of unknown quality. That's the decision I made

at the time to get the horses out of danger. One of my horses would not float with others. She was a really bad scrambler. The last thing I wanted was for her to go down.

I knew the last thing emergency services would want to do was to come and deal with a large animal rescue at the same time as a fire. That resourcing would just not be available to me. I was lucky somebody came and volunteered to transport the horse for me. The risk was I didn't know the quality of the float or the quality of the driving, so I did take a lot of risks. Calculated I felt, but these are risks that I took even as someone who had been researching bushfires and horse owner behaviour. That's my personal experience with horses.

I'm going to go through some of my professional or academic experience.

I'm a social scientist. I research people's relationships with horses quite broadly and I've been involved in three major projects. From 2013 to 2015 I looked at the impact of pet ownership and animal ownership on people's behaviours during natural disasters. Before I started my research the only research you could read was about dogs and cats and it was research that said dogs and cats were a risk factor for people evacuating. The research I did was first to include large animals like horses and second to look at how we can turn that risk factor into a protective factor.

In 2014 I led three community bushfire task forces within a couple of months of three significant fires in South Australia had been started by lightning strikes. Bangor was a fire that went for a month, it moved around the area and it ended with floods. Eden Valley was a really fast-moving grass fire and Rockleigh was another fire around the same time. I'm going to present to you some of the findings of the interviews we did with horse owners from that project.

I'm currently involved in a project at University of Newcastle where I also work in partnership with Hunter New England Local Health District. We're looking at making sure there are suitable evacuation areas for people with large animals.

I already mentioned a lot of the research on the impact of animals on people's evacuation and preparedness behaviours had been done on cats and dogs. But I knew as a horse person myself horses and horse owners are different to dog and cat owners. Although it's not an either/or scenario, we know a lot of horse people own dogs if not cats as well and other animals. But horses are kind of in between livestock and pets. If people could have horses in their homes they probably would in the same way they have dogs and cats in their homes. But because of horses' needs and obviously very particular reasons they live outdoors in the way livestock often live. But it's easy for non-horse owners to not understand the kinds of risk-taking behaviour that was and still is very common for horse people to take because they see their horses very closely like pets and/or they may see them as family members.

Research on dogs and cats has shown people will try and bring more pets with them than they can fit. Some of the factors seen for a failure to evacuate is not having enough animal crates. But really with horses you can't fit more horses into a float. I know there's going to be an exception to this that somebody is thinking of right now. But in general someone like me who had three horses and a two-horse float that's a real problem for evacuation that requires some major foresight. And whilst it wasn't intentional for me to keep horses across two properties where I had the opportunity to bring them together in one, I ended up not doing that because of my experience with fires.

Because horses are not kept in or very close to houses it can be easy for people not to include them in their household plans. And because they're outside the house often people do not prepare a plan specifically for stables or paddocks.

And then we have people who own horses who may keep them elsewhere. And what this means is at the time of a fire instead of people driving away from the fire and leaving the area clear for emergency services to deal with, what we have with agistment facilities is a lot of people driving into dangerous areas putting more pressure on emergency services, potentially blocking roads, potentially causing accidents that would distract people from doing the work of helping animals.

And agistment almost also means you as an agistee or the property owner might find yourself responsible for other people's horses whether you have agreed to that or not. And we might find a piecemeal approach on an agistment property. Where it's a case of every horse owner for themselves in terms of developing and deciding on their own plan this could mean everybody

comes and removes their horse except possibly one person which could mean a horse is left behind. Andrew is on the panel to talk about horse behaviour, but in terms of animals staying calm we know that horses are social animals, they feel safer with company of their own species. There's a lot to think about with horses and fires. It's a very complex scenario.

In terms of recommended action, the safest options for horse owners are pre-emptive relocation of horses the day before an extreme catastrophic fire danger rating is issued. Or to prepare the property well in advance to be in a position to stay and defend. We know the most dangerous options are just waiting and seeing, and leaving at the last minute. And when people think it's the last minute it's well beyond the last minute, or having no plan at all. This photo is part of my motivation I suppose for people to think about evacuation and what that entails. If you're going to evacuate you need to have a vehicle and a horse float in good condition and working and you need to understand how fire affects the environment - how fire affects visibility and how fire might affect how well your car radiator works. I don't know the context of this image, we don't know if this is an image of someone who left at the last minute or early but this is here to just get you thinking about the practicalities of being in a fire area.

These bushfire task forces I led did 171 interviews, we went door knocking around the fire scars of those three areas. Of the 171 interviews 21 households were responsible for horses. I'm about to tell you the findings were published as this journal article. Let me give you an overview of what people said they would do or what their plan was before those fires and what they actually did. Twenty-one people were responsible for horses. Ten of those had a bushfire action plan that included horses. Eleven of those people either had no plan or they had a plan but horses were not included in the plan, and of those six planned to relocate. Of the people who planned to relocate three successfully relocated their horses, three did not relocate their horses.

Of course I'm not giving you the background of each individual case, so please try not to judge what you're seeing here. For those people who planned to relocate but did not relocate might have been the right decision for them at the time.

Four people planned to keep their horses on their property, three ended up doing that. One household did attempt a late relocation.

Of the 11 people who had no planned actions for their horses, one of those relocated all of their horses early, one relocated all of their horses late, one relocated some of their horses late. And I remember these were people who had previously successfully stayed and defended their property against two other fires. But they realized this fire was not like the other two. And so they relocated some horses late, they had to leave two horses behind, and 8 of those 11 did not relocate.

Let me just summarize. That actually made up 9 different scenarios just out of 21 households. As I've already said please don't judge them as right or wrong, people made decisions at the time with what they had and it's very hard to know what would have happened if they've made different decisions. It's really hard to judge. But what we do know is their intended action and their ultimate actions were different. Planning to relocate did not guarantee successful relocation, previous success with fires did not predict future success with the same strategy. Households that had a vulnerable person in them did not relocate horses. Not every household is going to plan to relocate horses and that's okay. Those households however, need to think about setting up their property so the horses are in a position of passive defence if the humans are going to leave the property.

What we learned from these interviews is plans need to be adaptable, but they need to be adaptable to scenarios that have been well thought through. Plans should be reassessed and even this case with vulnerable people, it could be someone with a permanent disability who's vulnerable, it could be someone with a temporary disability. And plans need to be updated all the time to account for different people in the household with different and changing needs and plans need to be conditional and scenario-based. And I've already said you can have your single gold-star plan for early evacuation, but if that's not possible are you prepared to be able to stay and protect yourselves at home?

Some of the reasons why people either didn't evacuate or evacuated at the last minute was they really had a low perception of risk of fires. And this is where I encourage everybody to learn as much as you can about fire behaviour. Bushfire Resilience Inc. already have some webinars to

watch. One interviewee was using their horses' behaviour as an evacuation trigger. They looked out the window and said their horse wasn't too worried so the fire can't be that bad. Perhaps that's something Andrew can comment on.

Since 2014 I'm pretty confident we've changed some of these perceptions. But in 2014 people were still reporting opening external property gates to release horses which is certainly not a strategy emergency services would recommend and would probably put your horse in more danger of being out on roads with a lot of emergency vehicles. However, the things that did help people relocate were prior identification of a safer place to go to, being connected to their local horse community because that provided a network for information to be disseminated, it provided transport assistance for people who needed it.

Here are my takeaways. Disaster planning is part of responsible horse ownership. Everybody knows the five freedoms we need to give, We know as good animal owners we need to give our animals food, water and shelter. I believe disaster planning is part of providing shelter. I encourage everyone to learn about fire behaviour, to learn about horse behaviour and to learn about human behaviour. I haven't said much in the slides about human behaviour, but some people will be surprised by how they respond to a fire event. If you've never experienced a fire event you really don't know if you're the kind of person who's going to handle that with a clear head or to go into a freeze or shutdown mode which is a biological fact for many people, it's something you can't think your way out of. You need to learn about human behaviour. How humans respond to stressful events, how horses respond to stressful events and what the combination of stressed humans and stressed horses can do.

Now the last thing I want to say. I want to address the elephant in the room. We know the increasing frequency and intensity and unpredictability of bushfires in Australia is related to climate change. You can go online and find a lot of information about how you can prepare your own property, your own horse and yourself for fires. And I really want you all to go away and do something about that tonight or tomorrow and to commit to making a change to getting a bit more information to doing a new action. But we also need to minimize as much as we can climate change so we can reduce the likelihood of these events happening because they will happen. After a bushfire we're always in between bushfire events.

Thank you very much for listening. I'll leave you with this link to some useful information you can get from Horse SA. There is some fabulous resources there about emergency planning and you can also check out the emergency services in your own state and the other states to look at the different planning tools available. Thank you very much.

### **Chair**

Thank you Kirrilly.

Rohan you've got those poll results up.

Kirrilly, do you want to make a comment?

### **Kirrilly Tompson**

Forty-one percent of people have a household plan that includes horses. I would say well done to those 41%. Horse people know other horse people. Why don't people who have a plan ask around your horse friends, find out who these other people are who don't have a plan. Buddy up. Get together. You tell them what your plan is. Get them to play devil's advocate and say, "Yes but what about this? But what if that happens?" And then offer to develop a plan for the friend together.

### **Chair**

Great idea.

### **Kirrilly Tompson**

I also see 1% of people have practised their plan. I guess I'm not surprised that is low because we're still in a behaviour change sense, fighting to get people to develop a plan. Research suggests having a written plan is going to help you be more successful. Practising is another thing altogether. Once again I think that's something that can be encouraged with a buddy system.

Practising a plan doesn't mean it's just an opportunity for you to test the plan you've put together but it forces you to do things like identify where are you going to take your horses. If you own more than two horses and you have one float, which two are you going to take first because you may not be allowed back in? I was stuck at a cordon and not able to get two horses in the first trip, but equally I could have gone and moved two then offered to take a friend's horse who had been stuck at that same cordon.

You probably are going to have to make some tough decisions. You might have to leave a horse behind. That's okay if that's the decision you have come to in an informed way and you've put other strategies in place to do the best you can for the horses you can't move. People with multiple horses really need to think about which is the horse, which are the two horses out of multiple horses they're going to take with them. Sometimes the horses they want to take are the ones who have special quirks. Like the horse I had who wouldn't travel with other horses. Practising forces you to come to terms with some of these difficult decisions.