

Triggers to take action

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Raphaelae Bianchi

I have the result of the first poll. The question was how much time do you need to plan a trip of 12 months before you go? The most popular option was six months (56% of responses). 31% nominated two years of preparation, and that's a good point as well.

A few years back I went on a big trip in Western Australia, around Western Australia with my family. And we started to plan it like eight months before the departure. First we were thinking about the big questions - what car do we need, where are we going to sleep, do we need a tent, do we need a camper trailer? And then closer to our departure we started looking at the smaller things like do we really need a coffee grinder which we did take with us and it was fantastic. But reflecting back on our trip and how it's related to the planning for bushfire I think that looking at the big picture and the strategic planning at the start was really the most critical for us and was really important to be part of our plan.

So Kevin why do you think it's so essential to have a plan when should we start planning and how can we identify the triggers in our plan?

Kevin Tolhurst

It's not the plan that's important it's the process we go through in developing the plan.

So as you've just described Raphaelae you need some time to think about all the things you've forgotten about. So whether it's the coffee pot or whether it's the fact that usually in the middle of the year I get some firewood and if I don't get the firewood before I leave then it's not going to be there when I get back and I'll have lost the opportunity.

So the plan forces you to go through all the possible scenarios that you can think of. It allows you to communicate that with other people in your family and your neighbours so that you can also get a joint shared understanding of where you're coming from. And once you're clear as to what your options are and the various scenarios that you can think of then you can start to set the triggers as to when you might implement those various plans or options.

We do it relatively naturally for many other things in our lives but for bushfires often we put it off in the background and don't think about it so much because it's too hard. But in fact it's not too hard.

It is complex but we need to take the preparations. Because not all fires are big fires like on 2009. Some of them occur within a couple of hours of starting and could impact on us. So even a fire under a very high fire danger condition could be life threatening and could destroy our house.

We've got the statistics that basically show that lots of houses have been burnt under those conditions might be 10%, but it might be my 10% if you like. The plan is really important to have those discussions and work through what the options are. So you can put triggers in to know when you're going to go down those various lines of options.

Raphaelle Blanche

Katharine, from your research how many people have a plan or have made preparations? And what are the challenges that stop people from having a plan? That's so important.

Katharine Haynes

A lot of the research on people having plans depends on what you classify as a plan. And quantitative research that we've done has often come up with a percentage on this that's fairly high. For example our Black Saturday questionnaire found that 69% of people claimed to have a firm plan at the beginning of that fire season.

But what our in depth qualitative interviews that we've conducted show is the huge variability in the quality of people's plans. So there's a lot of people who will say they have a plan when asked and they might say, "Oh yes, my plan is to leave." But that's not a plan, it's just an intention.

And when we question them further it becomes clear that there is no detailed planning around that intention. It's just what they think they'll do but not how they'll do it, what are their triggers to go? What do they need to pack and prepare? What will they take? Their horse or other pets? Where will they go? How will they get there? What are their contingency or backup plans if plans A, B or C don't work?

Having a number of contingency and backup plans is something that we've seen is really important. There are many things that can change. Even how you feel on the day, to what day of week it is, if the children are in school or not, who is home, and importantly, who may be able to get home. One theme which comes out really strongly from all the interviews we've done is that different family members have different visions of the plan, or different views of what should be done when the reality of a bushfire actually threatens. These disagreements often lead to different outcomes.

As seen from this quote, where a male respondent from Flowerdale talks about him and his partner and how he ended up leaving rather than defending. "My plan was actually to stay, and I probably would have, but she wouldn't leave. And then in the end, I wasn't happy for her to drive on the road anyway. I would have liked her to have gone very early in the day, but she wouldn't leave. So, that probably altered my opinion on staying right through to the end."

The main thing that stops people having a plan is that they don't think they're at risk of a bushfire. Like the New South Wales Tathra fires in 2018, it's a seaside town where the majority did not think they were at risk and they didn't have a plan. And to make matters worse many didn't receive a warning that a fire was coming.

During the 2019-20 bushfires some people were under threat for weeks and in some cases months. What we saw was that people's plans became more refined as they were tested and applied learnings and had significant time to prepare. What we also saw was that some who planned to stay and defend ended up evacuating as they realized the enormity of what they were facing and that they physically and mentally were not up for it. But due to the dryness of the landscape and the expected fire weather they could not defend. We also saw people who were planning to evacuate actually have the time to prepare and end up defending.

The conversations we've had with people after the recent and long drawn out Black Summer fires were with people who had developed a really good appreciation of the risks and had a well tried and tested plan. So the question is, how do you get to this point without going through a long drawn out fire season?

Raphaelle Blanche

Yes, very good point. How you try to instigate those feelings when we're not in the fire season, so people can start to develop those plans and get prepared and ready for the bushfire. Danielle, you lived close to St Andrews and you were threatened by the Black Saturday fire, now you live in South Australia and you've been facing a recent fire. So, tell us about a bit of your experience. What was your plans? What were your triggers and how does this work for you?

Danielle Clode

I guess the main thing is that my triggers and my plans change with the circumstances I'm in and my family basically. When we first moved to our house in Victoria we did choose it knowing that fire was a big issue. We chose a south facing block with various features that might have made it a little bit less risky but it was still a high risk property surrounded by forest. And so when my children were very small, when they were babies, I left every total fire ban day because that was the recommendation. And so that was a matter of leaving first thing in the morning every total fire ban day that was declared.

I have to say I was the only person I knew who ever did that. I didn't ever meet anyone else who did that. It would have made my life a lot easier if other people had done it as well. Perhaps we could have done something together. We'd go to the cinema, or we'd go to an indoor playground, or we'd go visit friends. It wasn't too bad when my children were small. But it became more complex when my children were in school and so that added an extra layer of complexity and our triggers and plans had to change. But still we would mostly leave the area.

And then as my children got older and we put more investment in protecting the property making it safer, putting in sprinklers, doing the clearances, putting in other plans, I decided that we would stay and defend which is what we did on Black Saturday. Which possibly with hindsight wasn't the best decision. And that probably resulted in us moving house and then we ended up in South Australia and we bought a block and built a fire safe house which has then changed our plans again. So now our plan is always to stay and defend. But now, I have a custom built house in the middle of a cleared block and with three or four adults at home.

But again those triggers will change and those plans will change. And if I was to leave early if one of us was ill I would again leave the night before or very early in the morning on the day, and I would not return until late at night when it was clear that any risk was reduced. So I think that recognition that things are going to change through your lifetime depending on your personal circumstances has been really important to me in the decisions I make. And they constantly change depending on the season.

Raphaelle Blanche

That's good, and that reflects as well what Kevin was discussing and presenting a bit. You know things change and how we can adapt and how we can take that into account being very proactive in that way. I think we've been talking a bit now about the plan, but can we try to explore a bit more. When do we act? When's the time do we have to do something? So there maybe some of the first things I'd like to explore with Katharine. We've been talking about leaving early but what does leaving early mean? And what are the consequences of leaving it too late? Kat can you tell us a bit more about that and how people can understand it in relation with their context and their own circumstances as well.

Katharine Haynes

Leaving early means different things to different people. To emergency services it means leaving the day before or early on the day of all Catastrophic or Code Red days. Residents interpret this differently given their individual circumstances and perceptions of the risk to their lives and their properties, and also their ease of egress to safe areas. It also depends for many if there are already fires burning in the landscape that could then become threatening. If there are no fires burning, then people may wait to see. During the recent Black Summer fires, we saw many people who have dependents and animals such as horses leave early and make preparations to keep their children and animals safe. We also saw this become so inconvenient that people moved and stayed elsewhere, removed the animal semi permanently, as the back and forth became too difficult. Of course there are many people for whom this is just not an option, and it becomes a balance of inconvenience against the risk.

With climate change and a likelihood of more long drawn out fire seasons this is something we have to consider. I think we all know what the consequences are of leaving too late. It means facing dangers in the landscape, flames, falling trees, inability to see due to smoke, car accidents. In recent times we've seen a high percentage of deaths of those evacuating late, either in vehicles or on foot.

People want more certainty in relation to the level of risk they face. They want confirmation that their actions warrant the risks faced. What we saw with the recent Black Summer fires was a huge reliance on smart phone apps to provide an almost real time mapping of the fire front predicted path of the fire front and ember attack. Despite the interviewees saying that the level of information and detail they received from the Rural Fire Service was the best they have ever had, they still wanted more detail. More localized, more timely, and more accurate information. They wanted to know precisely when the fire front would arrive if their property would be impacted and when they should take action.

That is an absolute natural expectation and technology improves all the time. But unfortunately it also fails. What then in the absence of any information at all? If we come to rely on official warnings to evacuate and then we don't get one. A recent study by the CFA found that 70% of residents expected a formal warning to evacuate.

In Tathra in 2018 many residents received little or no warning at all. For many it was seeing and smelling smoke that alerted them. Embers landing in their gardens and flames on the edge of their properties. There was no option for these residents to leave early. It was a dangerous fire weather day but it was also March and near the very end of the fire season, and there were no fires burning. What then for leaving early? What then for people who only rely on apps and official warnings to take action?

We must not lose our ability to understand the landscape and fire weather, and make our own interpretations. And also understand that we may not always be able to leave early.

Raphaele Bianchi

I think that's a very interesting point that you said understanding the weather and our circumstances as well. That's going to help make this decision. So it's really trying to see what are the different circumstances in our environments? Like the vegetation and being in a high-risk area, weather, but also the other circumstances in your life. Like, what's going to happen on the day. So, maybe if we go trying to tease that a little bit more starting by the environmental circumstances that you're going to be facing. And Kevin, you talk a bit about them. Are we in a high risk area, what's the weather's going to look like? I think it's quite important to understand exactly what I was just saying, what the fire will look like at our place, and in different weather conditions and different weather situations. So try to understand how bad it's going to be depending on the day. So Kevin, can you give us maybe some example of what the fire look like under the Black Saturday

conditions, compared to another type of fire under severe weather conditions. What can we expect and what would be the implications on our plan and on our decision with those two extremes?

Kevin Tolhurst

If we take two extreme examples to start with. If we look at what happened on Black Saturday where the fires basically started on the morning or the early afternoon of the day and then caused all that destruction within a few hours really, within probably a 12 hour window. That is a different situation to what happened in Canberra for example where the fires have been burning for over a week in the mountains behind and then there was a blow-up day a severe fire weather day. It was when I say severe, it was from a fire danger rating point of view it was Code Red or Catastrophic day. And so you had warning in a sense of that potential fire because the fire already existed.

So one of the things that Katharine was saying is very relevant here is that you may get caught out under less than those most severe conditions and you still need to be prepared. The Tathra example is a great one where even if your plan is to leave early you may not have enough warning no matter how good the apps and so on might be. You may not have the time to do that. So, you have to have a plan that will work if you are caught out with a fire. It may not necessarily be necessarily even defending your property but it may still be finding somewhere safer to go during the passage of the event, or it may be in fact defending your property.

So the fire that I've tried to explain there are more factors than just the flames and the smoke. There's also the winds associated with it and there's just the temperature of the day and so on, they had to fix their metabolic capacity. There's the fatigue that we might already have from not sleeping very well at night. All of those things add to it. It's not just about the flame, the app is not going to tell you that. The app might tell you where the fire front is but it won't necessarily tell you when you're likely to be impacted. So the triggers that you're looking for need to take those sorts of things into account. And if you don't really understand the fire environment that you're living in and what the potential is, then that's a dangerous position to be. It's like driving a car without knowing what the controls really do. The controls for fire are the terrain, the weather, the fuels, well the combination of those. And the environmental conditions or the drought conditions that might exist.

You've got to package all those up. It's not a simple thing. And I think what Katharine was describing there is that you need to be prepared for a range of conditions. Because no two situations are going to be exactly the same. So if there's an existing fire in the landscape leaving early means going the day before. If there's bad weather coming along but no fires I would suggest that you need to be leaving before 10 o'clock in the morning, or putting your plan into action at least two hours before any of the hazards arrive, particularly the fire. So yes it's difficult to give a definitive answer but that's because of the complexity of the situation you're dealing with. I don't think I've really answered you your question.

Raphaela Blanche

No that's good. I think that was really decided to understand the environmental circumstances, what the fire is going to look like. And that's one of the complexities but when we look at the other complexity is, what's happening in your life at the time on the day. Maybe let's talk a little bit about that. Like who is at your place? Are you feeling okay? Do you have any other issue that's preventing you maybe to put your plan in place? I'd like to ask Katharine first and then Danielle about that. Should we adjust our plan and triggers to our situation on the day and take into account first our physical capabilities? Maybe that's a question for Katharine. And then we look at the psychological capabilities with Danielle.

Katharine Haynes

Plans and triggers for action should be continually refined in an estate of continual planning. As we saw in the recent fires, people's plans changed completely from the beginning of the fire season as the disaster unfolded. As people came to fully understand the risks and the dangers because of the dry conditions and the fire weather they re-evaluated what their plans were. And even in Black Saturday the fires came following a period of extreme heat and people were already feeling exhausted before the fires hit from preparations for bushfires or really just from carrying on day-to-day activities during an intense heat wave.

Also plans change as the years go by and I recently interviewed a couple on a rural property who'd always stay to defend. They were well prepared and they had experience. But in Black Summer, they realized that they just couldn't do it anymore. They were now too elderly and had to evacuate instead, and evacuation was something that they just had never planned for that. And then another interview that will probably always stay with me is of a wife and mother who plan to leave early while the others stay to defend. And despite evacuating early as planned she then returned as the trauma of leaving the others behind was just too great and she wanted to try one last time to try and get them to evacuate. And she ended up driving through the flames and was really lucky to survive. So she wasn't psychologically ready to leave her adult son and husband behind, and that trauma was not something that she considered in her planning.

Raphael Blanchi

That's really important aspect. So, what do you think Danielle about trying to include psychological capabilities as well in our planning triggers?

Danielle Clode

It's really incredibly difficult to be psychologically prepared. Because, as Katharine has explained, there's many things we don't predict are going to emotionally affect us on the day. I guess one of the things I think is quite important is to imagine that you're going to be on your own. We often tell people, "Remember there may not be a truck coming to save you, and so you have to plan to do whatever you're doing without anybody telling you what to do".

So you should just always assume that no one else will be helping you make your decisions. No one else will be helping you with your plans. Really you need to be thinking about what happens if I'm completely on my own in this situation. And I think that often helps people to understand how they're going to react emotionally. Because then they're just thinking about themselves they're not relying on anybody else or any outside support a partner, family, authority figures, fire trucks or anyone else. Just all on your own. If you can do that then you're probably prepared psychologically.

And I guess also just embedding all your activities. Embedding them in your regular daily activities so that you're completely familiar with them and that's a way of getting it into your head so that you're able to do those things just as part of your everyday activities. Your seasonal preparations, your garden activities. I think the more you can do that the better prepared and the easier the triggers are. Because the triggers are well in advance of the fire. They're not associated with the fire they're just part of your summer activities I suppose.

I guess it's just about how we respond to those situations and trying to mimic stress I think is really difficult. But one technique you can use is to run through one of your fire preparations. Whether it's getting out the hoses and watering, hosing down something or other some vulnerable asset. But do it with a time limit, give yourself a minute and a half to get all that done. Put yourself under pressure and you'll soon work out how you react under pressure and the mistakes you make and how difficult that is to do. So create artificial stress for yourself and then run through it. Of course doing it on a hot day with lots of hot clothes with scratched sunglasses and some really horrible heavy metal music playing really loudly in your ears. You'll find that you can mimic that stress and

you'll start to appreciate how difficult those activities are and how much easier you need to make them for yourself.

So, there's ways we can mimic that psychological preparation that we need to do. But yes thinking through those scenarios doing stuff on your own and as Katharine mentioned that's a really great example I think, of the kind of unexpected things that trip us up.

Raphaelae Bianchi

Yes, that's good. And I think you develop those points like in Webinar 3 as well, where let's discuss more the psychological aspect and the practise. 'Practise', 'practise', were some of the words that were coming out from the seminar. So, I advise people if they haven't looked at it to have a look at that one.

I think we're getting towards the end, but we still have one poll question. The second poll question that wanted to discuss the information that we use for trigger to act. Some of the response are very overwhelmingly it's the forecast weather and the fire danger rating. The official one is also another aspect that people use and very little or very little response where using information from friends, seeing or smelling smoke, and seeing an ember on flames. Which, quite interesting to see that in relation to maybe some of the research and the results from the research as well. But maybe, Katharine do you want to start to discuss a bit of some of the results and see what does that bring to you, what advice we can give people in relation to the result of the poll?

Katharine Haynes

It's interesting because that's what I expected. It's good to see that for most people it's the forecast weather the fire danger rating which is right. The official warnings at nearly 30%, I think that's probably what we've seen in previous research. And that the others are very low. But I think the reality is when a bushfire threatens, and we know this because when we ask people, "How did you first become aware that there was a bushfire?" It's because they smelled smoke, or saw smoke, or they saw embers, or it was because a family or a neighbour or a friend told them to. So overwhelmingly when the bushfire happens, it's because they find out about it from those other factors. But the fact that people's main trigger would be their looking for that forecast weather is great.

Raphaelae Bianchi

Kevin, anything on those results that you want to add?

Kevin Tolhurst

I think the official warnings and the weather forecasts are really useful sources of information but you just need to be able to apply that. What does that mean for you in your situation? And don't just look at the fire situation. As I say if there are going to be strong winds then that could bring branches or trees down on roads and cause havoc. Likewise if it's just going to be hot and dry that's going to affect your ability to be able to do physical work. Whether it's packing the car or whether it's trying to defend the house. So they are critical things, but I think often in the research most people use two or three cross checked pieces of information. I think that's right Katharine? We've only asked for one here but the reality is it is a good idea to actually cross reference your sources. And personally I'd be paying a lot of attention to the signs, the smoke, the winds, how much the trees are blowing around and so on. And combining that with what has been forecast to see if they match up. Because sometimes the conditions can actually be much worse than forecast, and sometimes it's vice versa.

Raphaelae Bianchi

Yes, the environment definitely quite important. And having this understanding of the environment, being able to notice what's happening outside, is really important. Danielle what's your thoughts on those results as well?

Danielle Clode

I think again you just got to assume you will not get a warning. You've got to assume that. It's obvious you should be watching the weather so that you know what the fire danger is. But sometimes the fire that burnt my property didn't have any bad weather. It was a very mild day so it wasn't really a high risk situation at all and the first warning I got for the three fires that threatened my property recently, in the last couple of years has been the smoke. And that's just smoke in the distance coming up. So you have to hope that you get a warning but assume that you won't. You've just got to be constantly patrolling on high risk days. Wandering around, having a look, keeping an eye out. Not sitting in the air conditioning with the blinds down. You can do that, but you've got to go outside and have a look as well.