Supplementary Material

Understanding the challenges in bushfire map use and effective decision-making amongst the Australian public

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Code: _____

Pre-Interview Questionnaire:

1. Age
What is your age?
- ☐ 18-24
- ☐ 25-34
- ☐ 35-44
- ☐ 45-54
- ☐ 55-64
- ☐ 65-74
- ☐ 75 or older

2. Education
What is your highest level of education?
- ☐ Postgraduate award (e.g., Masters degree, graduate diploma, graduate certificate)
- ☐ Bachelor degree
- ☐ TAFE qualification (e.g., Certificate II, III, or IV)
- ☐ High school (to Year 12)
- ☐ High school (to Year 10)
- ☐ Left school before Year 10

3. Insurance
Please indicate the level of insurance you hold for each of the following:

House:	☐ Fully insured	☐ Underinsured	☐ No insurance	☐ N/A
Contents:	☐ Fully insured	☐ Underinsured	☐ No insurance	☐ N/A
Vehicle:	☐ Fully insured	☐ Underinsured	☐ No insurance	☐ N/A
Farm:	☐ Fully insured	☐ Underinsured	☐ No insurance	☐ N/A

4. Service
Are you or is anybody in your household a current or previous member of an emergency service agency (e.g., Fire Service, State Emergency Services (SES) etc.), either as an employee or a volunteer?
- ☐ Yes
- ☐ No

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5. Past Experience

Please answer the following as best you can.

- How many bushfires have you experienced? _____
- How many times have you evacuated because of a bushfire? _____
- How many times have you had property damage from a bushfire? _____

6. Mitigation

Have you ever modified your home or land to protect from bushfires?

☐ Yes

☐ No

7. Risk perception

a. **Before** your recent bushfire experience (set of 4 questions):

What did you think was your home's bushfire risk level?

No risk	Very low	Low	Moderate	High	Very high	Extremely high risk
☐	☐	☐	☐	☐	☐	☐

What was the possibility of your home being threatened by a bushfire?

None	Very unlikely	Unlikely	Moderately likely	Likely	Very likely	Extremely likely
☐	☐	☐	☐	☐	☐	☐

How dangerous could a bushfire close to your home have been for you and the members of your household?

Not at all	Very minimally	Minimally	Moderately	Dangerous	Very dangerous	Extremely dangerous
☐	☐	☐	☐	☐	☐	☐

How concerned were you about a possible bushfire threat to your home?

Not at all	Hardly at all	A little	Somewhat	Moderately	Very concerned	Extremely concerned
☐	☐	☐	☐	☐	☐	☐

b. <u>Since</u> your recent bushfire experience (set of 4 questions):

What do you think your home's bushfire risk level will be this upcoming bushfire season?

No risk	Very low	Low	Moderate	High	Very high	Extremely high risk
☐	☐	☐	☐	☐	☐	☐

What is the possibility of your home being threatened by a bushfire?

None	Very unlikely	Unlikely	Moderately likely	Likely	Very likely	Extremely likely
☐	☐	☐	☐	☐	☐	☐

If there was a bushfire close to your home, how dangerous could this be for you and the members of your household?

Not at all	Very minimally	Minimally	Moderately	Dangerous	Very dangerous	Extremely dangerous
☐	☐	☐	☐	☐	☐	☐

How concerned are you about a possible bushfire threat to your home?

Not at all	Hardly at all	A little	Somewhat	Moderately	Very concerned	Extremely concerned
☐	☐	☐	☐	☐	☐	☐

8. Frequency of map usage
How often do you use any type of map for any purpose, either on a screen or printed on paper?

- ☐ Daily
- ☐ Weekly
- ☐ Monthly
- ☐ Yearly
- ☐ Never

Supplementary Material S2 – Interview Guide

NHRA Bushfire Maps project – Year 1 Interview Guide

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Part 1: Recent experiences with bushfire
I'd like to talk to you about your experience with bushfires.

Context/screening questions (1,2)
     1. Can you recall a recent experience (maybe in the last 3 or 4 years) where you were in an area that was threatened by a bushfire?
     2. If so, please tell me more about *when and where the fire occurred*.

Prior risk perception:
     3. Prior to this event, what did you think about the bushfire risk of that area?

Initial cues (channel/source):
     4. Now, related to your recent experience with a bushfire, how did you first become aware of the fire? (*Probe - who were you with, where were you?*)

Cues/Warnings (+Channel/source):
     5. After first becoming aware, please walk me through what additional information you received about the event (*Probes – information about the fire, what to do next, emergency warnings?*).
          a. How did you receive/get the information (for each instance)? (*Probing for channel and source - media, friends/family, officials, cues from the fire itself*)

Cues - Maps:
     6. Do you remember seeing or using any maps (of the fire or warnings or both) for your area? If yes, where did the map come from (**source**) and how did you access it (**channel**)? (*Probe: did you use your phone to see it?*)
     7. How did you use the map or map products during the event (if at all)? (*Or, what did you use the map for? or what information did you get from the map?*)

Behavioural response + perceptions of threat/risk
     8. How did you (and your family) respond to the fire? (*Probe: did you evacuate, defend in place, help others and then leave, etc.?*) and **why** did you make that decision (or series of decisions)?
          a. Please describe the moment you realised that you needed to take some type of action. (*Probe: What were you thinking, feeling, doing, etc.? Did you feel at risk at any point in time?*)

Next, I will ask a few additional questions about the map(s) *(if used)*
Evacuation Decision-making
     9. If at all, how did the map help you in the decision(s) you made that day (or over the course of the fire event)? (*Probes: did it influence a decision to stay/go/wait, decision to take a route or avoid a certain route, prepare their property, seek additional information, check in with other people [family/friends], etc.?*)
(If it didn't help, probe how any other information may have helped them)

Perspectives on hazard adjustment/stakeholders
     10. *[If not already answered in Q9]* Overall, what did you think about the map? How helpful was it to you (and why)?

a. If it wasn't helpful, why not? *[e.g., not easy to understand, I didn't trust the map, missing information on X, etc.]*

Part 2: *Now I have some questions for you regarding the types of bushfire maps used in your area.*

- Map A is shown first: Simple map from that jurisdiction (e.g., one fire/hazard; showing only one warning stage, etc.) and then the participants are asked Q1-11 below related to Map A.
- Map B is shown next: A more complex map also from that jurisdiction (e.g., showing multiple fires or hazards; fire spread predictions, etc.) and then the participants are asked Q1-11 below again related to Map B.

NOTE: Please see ethics application attachment: "Example Maps" for potential maps to be tested in this part of the guide.

Hypothetical scenario (instructions to participants): Imagine you are visiting [*PLACE on map*] and you are given this map about a bushfire in the area. Please answer the following questions regarding this map…

1. Have you ever seen a map like this before? If so, where and when *(if not already discussed in Part 1 of the interview)*?
2. Overall, what is this map telling you? What information are you getting from this map, if any? (*Probe: information regarding their own safety, what they should do next, etc.*)

Attention - pre-decisional process:
3. What captures your attention at first? Why? What do you see next?

Comprehension/perceptions of threat and risk:
4. Please walk me through each element on the map. What does each mean to you? (*Probe specific things on the map – e.g., what do the polygons mean to you?*)

Threat and risk perception:
5. Which area of the map is at the highest risk of harm? Why? Please explain.

Behavioural response/intention:
6. What should the people located in this area [identified in Q5] do next? Why? (*Probes: seek additional information OR contact family members OR prepare the house/to leave OR leave immediately...or a combination of these?*)

Perspectives on hazard adjustment/stakeholders:
7. How might you use this map in a bushfire?
8. Would you have confidence in the information provided in this map? Why or why not?
9. Is the information in this map useful? Is it easy to understand? Why or why not?
10. What types of (additional) information would be helpful to include in this map, in your opinion?
11. How might you improve this map for future use?