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FLOOD RISK COMMUNICATION RESEARCH INTO PRACTICE BRIEF 8 NOVEMBER 2021

Development of a national set of Community Service Announcements for flood risk

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Statement of purpose: The Research into Practice Brief series provides concise summaries of research findings for end-users and practitioners. This brief outlines the process taken to scope, co-develop, test and agree a set of nationally agreed Community Service Announcements for use by the ABC for radio broadcasts in the lead up to and during floods and storms. While developed with the ABC, other media outlets or organisations could also benefit from the Community Service Announcements, but should consult the State Emergency Service agency in the relevant state or territory prior.

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SUMMARY

This Research into Practice Brief details utilisation of the findings from the Bushfire and Natural Hazards CRC's *Flood risk communication* project. The aim was to deliver a nationally agreed set of public flood risk messages, informed by research and agreed upon by a national working group comprising State Emergency Service representatives from all Australian states and territories and the Bureau of Meteorology.

The project was conducted in three stages and resulted in a final set of 26 Community Service Announcements (CSAs) that cover a range of content areas and can be used on radio by the ABC in the lead up to, and during, storm and floods. This brief provides an overview of the process followed to scope, co-develop and test these messages, leading up to their final delivery to the ABC.

BACKGROUND

The ABC is the official emergency broadcaster in Australia, and during emergency events like floods, cyclones and bushfires, local radio stations broadcast emergency warnings and alerts to impacted communities. Flood Community Service Announcements (CSAs) are used during rolling emergency broadcasts on radio and broadcast—as appropriate—before, during and after flood and severe storms. They are typically used by the ABC to break up rolling broadcasts, between local state and emergency service warnings and on-the-ground reporting. Although the ABC had an existing set of CSAs for floods and storms prior to this project, they needed revision. In addition, the existing ABC CSAs comprised a complex matrix of messages that could be used in only certain states or territories or combinations of states or territories, meaning that there was potential for error if the wrong message was selected, and potential confusion for radio listeners crossing state borders (e.g. travellers and tourists) or those listening to local radio broadcasts in areas that straddle state borders. Therefore, an important requirement in this project was to produce a single harmonised set of CSAs that the ABC could use nationally.

This project was highly collaborative and made possible by the creation of a National Flood CSA Working Group. The CSA Working Group comprised representatives of all state and territory emergency service agencies with responsibility for response in floods; mostly State Emergency Services (SES), along with a representative of the Bureau of Meteorology and representatives from the CSA product end-user—the ABC. The project was led by the researcher/first author (Taylor) and facilitated and supported by the second author and AFAC representative (Peppin). AFAC was the project end-user.

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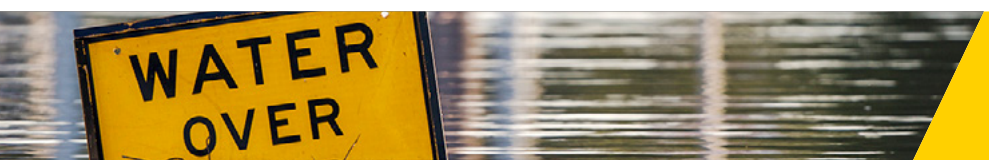
What are flood CSAs?

Community Service Announcements (CSAs) are short messages that support activities, events or charitable causes, and are differentiated from other forms of messages and advertisements mainly because they are broadcast for public good and without commercial charges. CSAs are a form of public information – they are NOT warnings. Flood CSAs used by the ABC for radio broadcasts are typically around 30 to 60 seconds in duration. They contain high-level, general advice and support to communities with the aim of increasing public safety in floods and storms.



APPROACH

The approach taken for this project was loosely based on a design-thinking process (see Dam and Siang (2021) for a brief overview). Importantly, it included three core features:

1. a human-centred approach – keeping public message recipients (users) at the heart of the work, considering their perspectives and being evidence-informed through social research
2. iterative – with messages created, reviewed and refined repeatedly throughout the process
3. interdisciplinary – with an expert working group from a range of disciplines with a variety of roles and professional perspectives.

Underpinning research from the Bushfire and Natural Hazards CRC's *Flood risk communication* project, other CRC research projects and academic research contributed to understanding public behaviour around floodwater and understanding natural hazard risks more broadly. This was combined with the expert knowledge from CSA Working Group members on public communication, operational experience and community engagement. These elements were important for understanding the target audiences for the messaging; their behaviours, motivations and what influences their behaviours and decision-making.

The main project comprised three stages: scoping, co-development, testing and finalising.

> *"I would have been one [of those people] to consider driving through a little bit of water, and that [message] really made a big impact on me. I won't be."* (Focus Group 7 member, Driving into floodwater CSA)

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COMMUNITY SERVICE ANNOUNCEMENT

DRIVING IN STORMS AND FLOODS – SOCIAL PRESSURE

It's dangerous to drive on flooded roads, causeways and rural tracks.

Often, people who drive into floodwater are just following what others are doing or feel pressured by those behind them to keep driving.

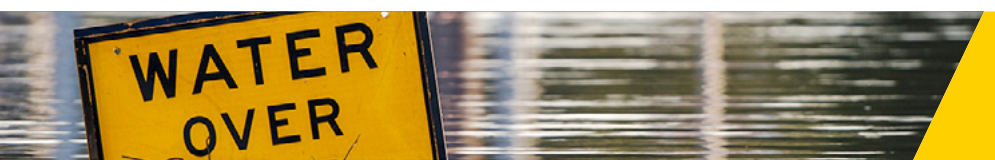
Even if you make it through, others who see and follow, might not.

Remember, the safest and smartest decision for you, your passengers, and those around you is to stop and turn around.

Lead by example and turn around.

Stage 1 scoping	**Stage 2** co-development		**Stage 3** testing and finalising			**End-user** production	
Flood CSA WG	Flood CSA WG + ABC		Public	Flood CSA WG	Flood CSA WG + ABC	ABC	
Identify and prioritise topics and contents	Drafting and iterative review	Provisional CSA messages	Public testing (focus groups)	Review, refine and approve	Final CSA messages	Combine and record	CSAs
March – April 2021	April – May 2021	31 May 2021	June 2021	July 2021	31 July 2021	August – September 2021	November 2021

Figure 1. Schematic of the project/stages



Stage 1 – scoping

This stage used consensus decision-making to identify and prioritise message topics and content areas. The goal of this stage of the project was to reach consensus on the content areas and message elements to be included in the CSA set.

Consensus decision making is a creative and dynamic way of reaching agreement between all members of a group. Instead of simply voting for an item and having the majority of the group getting their way, a group using consensus is committed to finding solutions that everyone actively supports, or at least can live with.

Activities in this stage included several CSA Working Group meetings to discuss ideas and share views about the content of messaging. The researcher designed an online survey to gather information about the importance of various content areas and to explore potential message elements, i.e. the finer points to include within each content area. Figure 2 shows the views of the CSA Working Group overall regarding the importance of including certain content areas and Figure 3 shows responses for the message elements in the 'driving in floods' content area. Importantly, at this stage, content that could be potentially contentious was also flagged (see items marked with * in Figure 3).

These data were helpful for identifying areas where the majority of members were agreed already, thus freeing up time to focus on the areas where there were more mixed opinions and teasing out issues and differences. As mentioned, consensus was not driven by majority vote (or directly by the mean ratings shown in the figures), hence being able to talk as a group about different priorities for different states and territories was helpful for gaining a shared understanding of issues.

At the end of the scoping stage, priority areas were clearly identified and understood by all stakeholders. A small number of message elements were rejected due to contentious aspects or minimal interest in inclusion across the group. However, many lower priority areas or new areas were not excluded from consideration in the next stage.

"I think it's a really good introduction to a flood coming. Not having experienced floods previously, we weren't sure what we needed to do, to be honest, it got us by surprise. So I think that's a great list to start... in preparing to evacuate." (Focus Group 3 member, Flood – prepare to leave CSA)

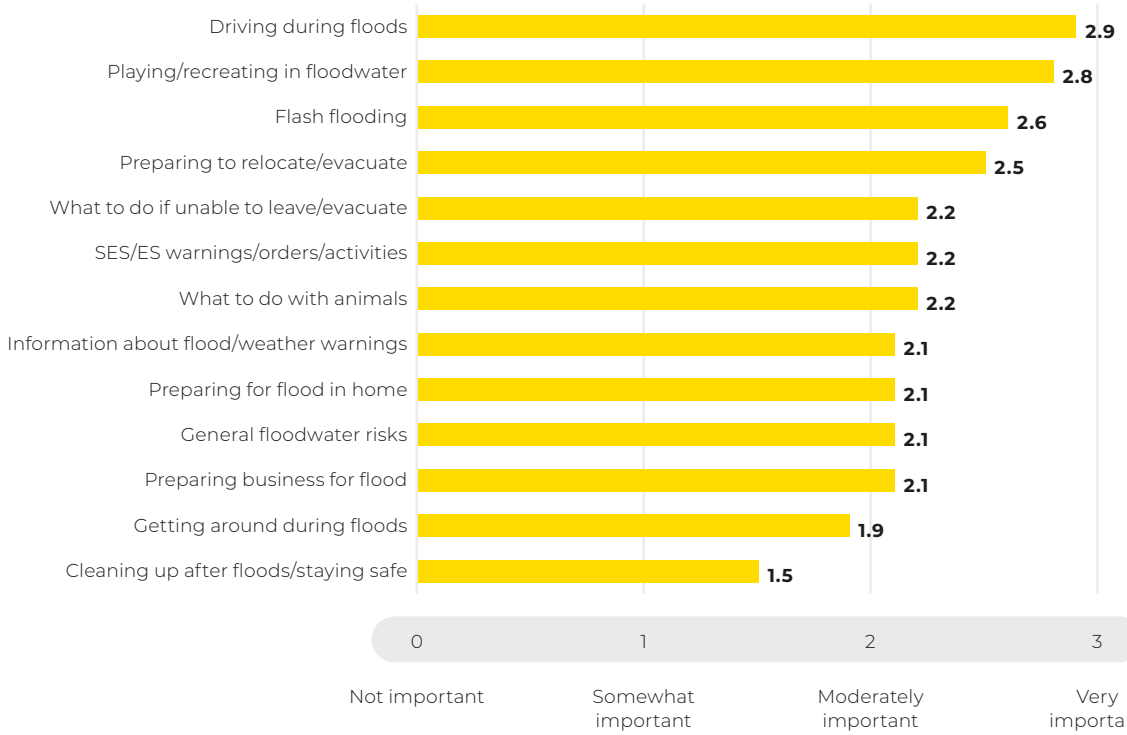
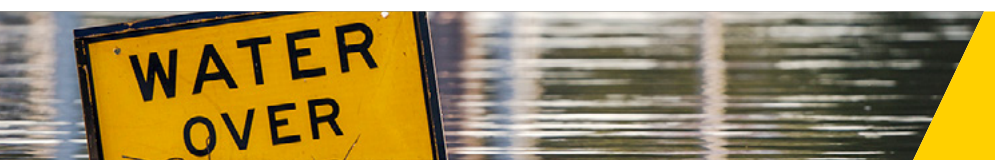


Figure 2. Stage 1 – Scoping: Mean importance ratings of the content areas (responses from the Flood CSA WG members)



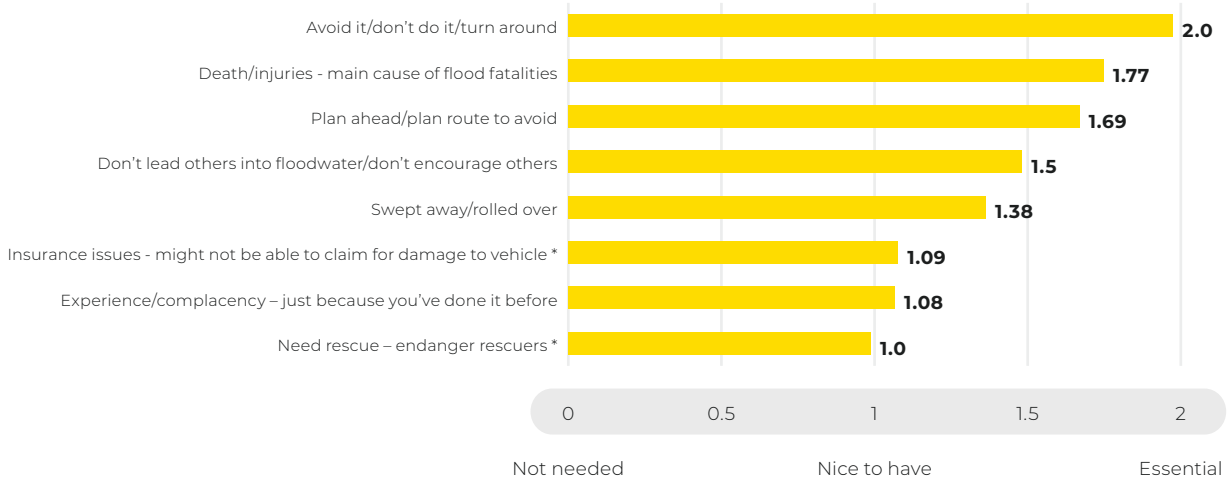


Figure 3. Driving in floods – requirement for message elements – mean group rating.
(* = areas identified as potentially contentious)

Stage 2 – co-development and iterative review

Having gained a shared understanding of the broad content areas and messages to be included in the CSA set, the next step was to co-create messages and conduct iterative reviews to produce a provisional set of CSA messages for public testing in Stage 3.

CSA Working Group members were divided into five cluster groups of two or three people from different states and territories to draft initial messages for two to three content areas. Following an initial CSA Working Group meeting, the researcher took the draft message content from the cluster groups and drafted a set of CSA messages. Message content came from a wide range of sources, e.g. from approved state or territory messaging, new/current public information campaigns and prior CSA content, as well as new content generated from discussions and research findings.

Over the following six week period, the draft CSA messages went through three rounds of review with CSA Working Group members and ABC representatives until a set of agreed provisional messages was finalised. The set of provisional messages comprised 26 CSAs covering a broad set of content areas.

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COMMUNITY SERVICE ANNOUNCEMENT

PLAYING IN FLOODWATER – CHILDREN

It's dangerous to play in floodwater.

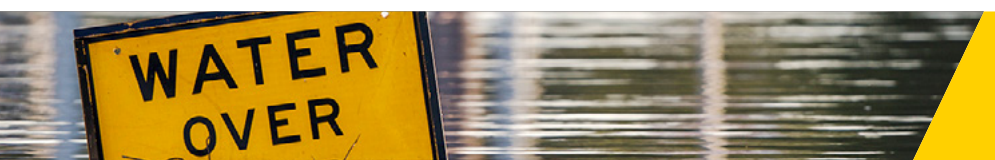
Playing in floodwater is a major cause of children's deaths in floods. Floodwater can be deeper, and flow faster than it looks.

It may sound like fun, but the reality is that playing in floodwater and stormwater can be deadly.

Being trapped in storm drains, sucked into pipes, or washed away in stormwater are common causes of death. These things have happened to children who were playing in floodwater.

Don't let your kids play in floodwater.
It's not worth the risk.

"The kids one got to me, because we had the kids in the street here playing in the water and their parents thought it was ok." – Focus Group 2 member, Playing in floodwater – children CSA



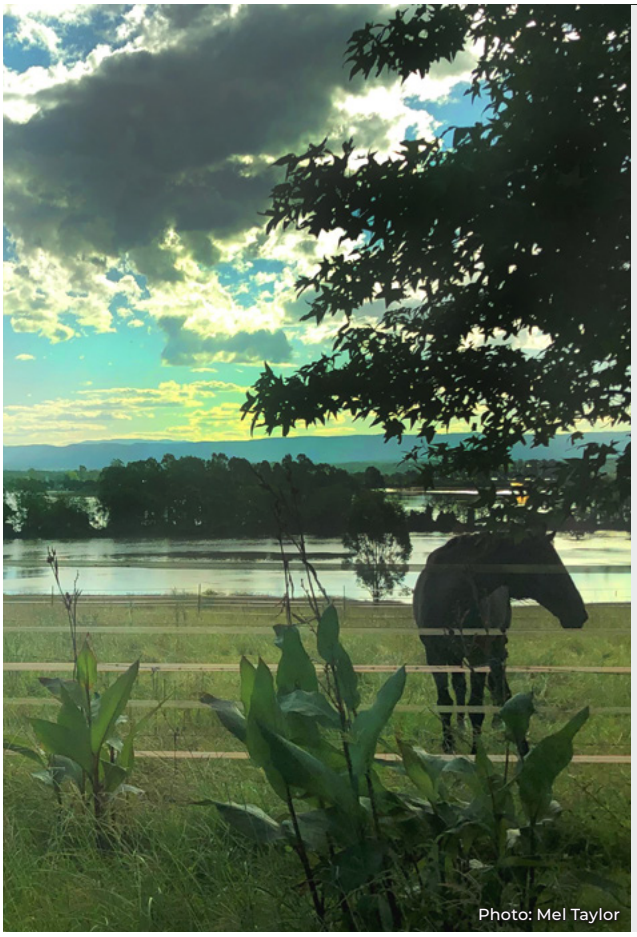


Photo: Mel Taylor

COMMUNITY SERVICE ANNOUNCEMENT

DURING FLOODS – ANIMAL OWNERS

In floods, people will often risk their lives to save animals.

Your pets, horses and livestock are important to you, but during a flood you shouldn't risk your own safety trying to rescue them.

If horses or other large animals are trapped by floodwater, conditions are likely to be dangerous for people too. Animals can behave unpredictably when frightened - and you should assume that floodwater is contaminated and stay out of it.

If YOU get injured, you can't help your animals or the people around you.

The safest and easiest thing to do is to leave early and take your animals with you.

For emergency assistance, call the SES on 132 500. In a life threatening situation call triple zero.

"I think it was good that it addressed some of the emotion around this. Obviously animals are something near and dear to people. It started off with 'we understand that this is something important to you... BUT here are the practical things that you need to consider in the situation as well'." – Focus Group 3 member, During floods – animal owners CSA

Stage 3 – testing and finalising

This stage involved testing the CSA messages through a series of focus groups with the public and a round of review with the CSA Working Group to refine the messages based on public feedback to produce the final set of CSAs.

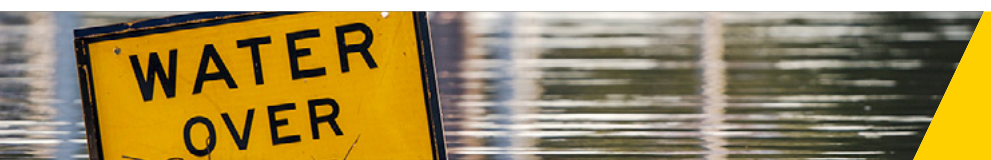
Although most CSA Working Group members were experts in public communication, a series of public message testing focus groups was undertaken to ensure the messages effectively conveyed their intended meanings. A set of seven focus groups was conducted. Focus groups ran for 60-90 minutes and were conducted online via Zoom.

Given the importance of the messages for public safety and the need for them to be applied nationally, public focus group members were recruited from all Australian states and territories. As some messages were written for specific target audiences such as drivers, parents, large and small animal owners, and people living in rural areas, these characteristics were monitored during participant recruitment. Participant demographics (age, gender and flood experience) were also collected to ensure a mix of these characteristics were also included in the sample.

A total of 39 participants took part in the message testing focus groups. The 26 CSAs were audio recorded by an ABC representative and these were used as stimuli in the focus groups. Each group listened to and discussed eight or nine CSA messages from the set.

Message testing is a frequently used approach in market research for optimising the effectiveness of messages. In this project, message testing was used to gain insights into what participants think and how they respond when they hear the messages. The broad goals of the message testing approach were to:

- gain initial impressions/perceptions – unprompted views, positive and negative
- assess ease of understanding – use of words, structure/ordering of content, flow
- identify issues of message ambiguity – meaning, intent, confusion, coherence
- discuss relevance/utility – importance of message, relevance to self/community.



COMMUNITY SERVICE ANNOUNCEMENT

DRIVING IN STORMS AND FLOODS – DECISION MAKING

It's dangerous to drive on flooded roads, causeways and rural tracks.

Driving into floodwater is the main cause of death in floods.

Researchers say many people who drive through floodwater claim to have done it after 'carefully considering the situation'.

Consider this. Water over the road can hide deep potholes or roads that are completely washed away. Even if you *know* the road well, or you're *nearly* home, it doesn't make the decision to drive through floodwater any safer.

Back it up and find a safe way to avoid floodwater.

Photo: Angus Veitch (CC BY-NC 2.0)

Typically, the following structure during testing was used for each message:

1. The message was played for a first time with minimal introduction. This was followed by unaided/unprompted discussion of first impressions.
2. The message was played a second time, followed by more detailed or targeted discussions, e.g. reviewing earlier comments, expanding the discussion, seeking clarification on points raised.
3. Specific content discussion – the text of the message was displayed and further discussion undertaken, e.g. on specific word use or ordering of content.

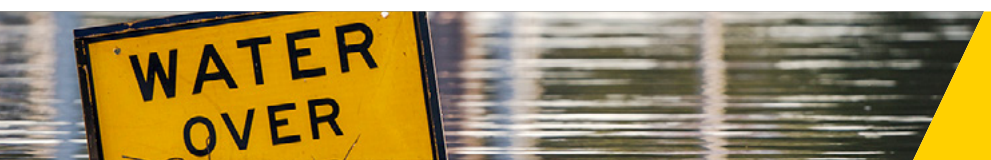
All focus groups were recorded and data from the focus groups went through a three-stage review process. Initially, the researcher analysed the focus group data by listening back to the recordings and extracting the main relevant discussion points into an Excel spreadsheet. For each CSA, these data were coded and summarised into 'positive' comments and 'negative' comments. In the second stage, these comments were reviewed and discussed by the researcher and the AFAC and ABC representatives, and edits were made to the provisional messages. In the third stage, the edits, along with comments from focus group participants, were fed back to the CSA Working Group members and a final series of reviewing was undertaken. The final set of CSAs was agreed and approved by the group in a further CSA Working Group meeting.

A NATIONALLY AGREED SET OF COMMUNITY SERVICE ANNOUNCEMENTS FOR FLOOD RISKS

At the end of the project, a set of 26 flood CSAs was approved. This includes messages that can be used in all phases of flood and storms —although the majority are designed for use during an event—in the context of escalating and/or rolling emergency broadcasts on ABC local radio.

These messages cover a broad range of flood risk content. Six CSAs relate to different risks and contexts associated with driving in floods, and four relate to playing in floodwater—these are the behaviours most associated with flood fatalities. A further four relate to animal ownership (pets and large animals/livestock), and four provide information about the meanings or nature of warnings and alerts, i.e. Bureau of Meteorology weather warnings and Emergency Alert SMS messages. The remainder include issues around home preparation (2) and safety considerations when cleaning up after flooding (1), information about what you do if you can't leave/are trapped by rising floodwater (1) or you're considering staying when advised to leave (1), messages about flash flooding (2), and flooding upstream (1).

Some example CSA messages and quotes from public focus group participants are included throughout this Research into Practice Brief. For the full set, see *Development of a national set of community service announcements for flood risk* (Taylor, 2021, forthcoming) and the forthcoming AFAC doctrine, *National community safety announcements for flood risk communication*, to be published at www.afac.com.au/insight/doctrine.



IMPLEMENTATION

The final stage in this project is the product end-user production of the CSA, i.e. professional recording and implementation, ready for use. Formal endorsement of the CSAs by AFAC occurred in October 2021, while recording of the messages was also completed by the ABC in October 2021, ready for use from November 2021.

FURTHER READING

AFAC (2021) National community safety announcements for flood risk communication, Procedural guideline, AFAC, www.afac.com.au/insight/doctrine

Ahmed MA, Haynes K & Taylor M (2020) Vehicle-related flood fatalities in Australia, 2001-2017, *Journal of Flood Risk Management*, https://doi.org/10.1111/jfr3.12616.

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> *"I think it's really impactful. If there was a flood in the area...if I decided not to evacuate and then I heard that, I think I'd be ... I wouldn't have already thought about all those things that it [message] went through, and it would force me to think about some of those other inconveniences and problems. It's a good mix... of emotional things – like friends and family and smell – that would appeal to different people."* (Focus Group 7 member, Flood – thinking of staying CSA)

ACKNOWLEDGEMENT

The author would like to acknowledge the members of the Flood CSA Working Group for their commitment and support of this project and the representatives from the ABC for their support and guidance. The author would also like to thank the members of the public who took part in the focus groups to test the messages for their time and their constructive and helpful comments that led to improvements in the final versions of the CSAs.

FLOOD RISK COMMUNICATION

This research was funded by the Bushfire and Natural Hazards CRC and led by Dr Mel Taylor. This project aimed to develop an understanding of the motivations, beliefs, decision making processes and information needs of at-risk groups for flood fatalities.

For more information, please see: www.bnhcrc.com.au/research/floodriskcomms

Contact

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COMMUNITY SERVICE ANNOUNCEMENT

DRIVING IN STORMS AND FLOODS – RURAL ROADS

Driving into floodwater is the main cause of death in floods and storms and these deaths are often locals driving on local roads.

Unsealed roads will become slippery. Mud and debris add to dangerous driving conditions. Water on the road can hide deep potholes and damage to roads – including collapsed road surfaces and washed out drains. Poor lighting can make it even harder to judge the risks on wet roads.

Let someone know where you're going and when to expect you, and above all else, remember...

...just because you know the road well, doesn't mean it will be safe to drive when it's flooded.
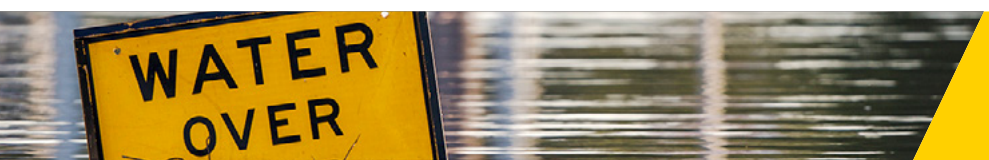
Photo: CFA