

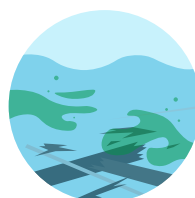
Driving Through Floodwater

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Risks



In Australia, flooding is the second deadliest natural hazard, and until 2018, driving into floodwater had accounted for 43% of all flood fatalities¹. Driving through floodwater causes more than half of unintentional flood-related deaths².



According to rescue services, floodwater is often deeper and faster flowing than what it seems to be, and may contain chemicals, debris and even animals that could cause illness and even death³.



Drivers with no prior flooding experience have been found to be more likely to underestimate the risks of driving into floodwater¹.

Understanding this Behaviour

The most common reasons for driving into floodwater are traveling, commuting, evacuating and attending a rescue¹.

Studies suggest the determining individual factors in deciding to drive through flooded areas are personal beliefs, past experience, social expectations, self-efficacy, and drug or alcohol use¹.

Risk perception when evaluating floodwater has been strongly associated to location, water depth and flow⁴.

When deciding whether or not to drive into floodwater, seeing others do it successfully can act as social pressure and motivate a driver to follow them¹.

Studies have shown that knowing the consequences of driving through floodwater does not always result in people avoiding it. It is crucial to understand the psychological influences and beliefs that guide this behaviour⁵.



Messages for Drivers



Driving into floodwater is a high-risk decision with an uncertain outcome. The danger you are putting yourself and others in, is certain. Avoid it.



Take into account environmental cues, such as heavy rain, to start creating a plan to avoid floodwater. Do not wait until it can be too late.



Driving into floodwater is a decision, and vehicle damage costs may not be covered by insurance companies.

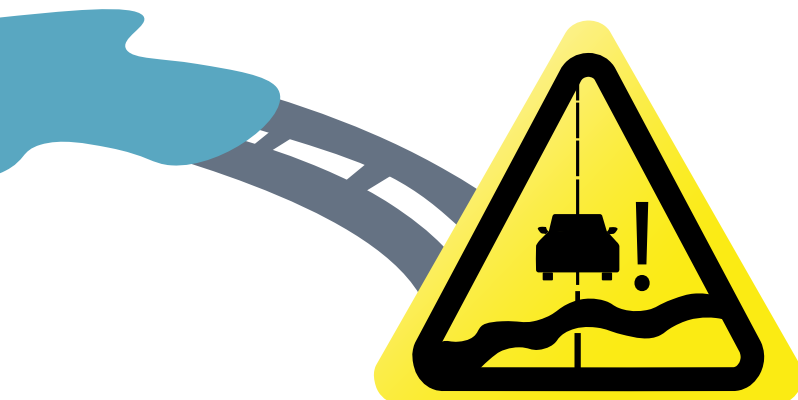
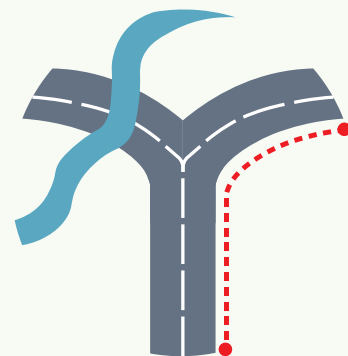


No life should be put at risk. Lead by example. Don't drive into floodwater and encourage others to avoid it.

Recommendations for Managers

- To reduce the risk of driving into floodwater, studies have recommended a holistic approach that covers education strategies, structural interventions, and law and regulations, specifically targeted to vulnerable groups. Co-developing them with communities according to their needs facilitates the design, implementation, monitoring and assessment process¹.
- A study with Australian State Emergency Service personnel identified organisational training and safety, and external elements, such as the absence of risk signals, as the most influential factors on risk perception when deciding to drive through floodwater. Researchers recommend water-related hazards training, more effective flood risk messaging, and the development of risk assessment strategies².

Developing a plan to avoid high-risk areas and what to do in case of flooding, encourages safe driver behaviour and avoiding floodwater³



References

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2. K. Hamilton, A. E. Peden, J. J. Keech and M. S. Hagger, "Driving through floodwater: Exploring driver decisions through the lived experience," *International Journal of Disaster Risk Reduction*, no. 34, pp. 346-355, 2019.
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