From:	NSW Government
To:	Flood Inquiry
Subject:	Floods Inquiry
Date:	Friday, 22 April 2022 4:17:25 PM

Your details

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Submission details

I am making this submission as	An academic/researcher
Submission type	I am making a personal submission
Consent to make submission public	I give my consent for this submission to be made public

Share your experience or tell your story

Your story	I am a PhD student at the University of Newcastle studying to what extent it is possible for residents to gauge their local flood risk. I am in the third year of my PhD and have undertaken 45+ interviews with residents in the Lower Hunter region during the period of February to April 2022, coinciding with minor to major flood events, both local to participants and in other

	NSW catchments. I am a volunteer with SLSNSW, and provided support in my region during these recent floods to flood isolated communities as part of an IRB crew 'ferrying' people to and fro. As my thesis has to be original and not previously published, I constrain my remarks to not hurt my own PhD candidature, given I have opted for my remarks to be made 'public'.

Terms of Reference (optional)

The Inquiry welcomes submissions that address the particular matters identified in its Terms of Reference

1.1 Causes and contributing factors	Floods are Australia's costliest natural disaster and second most deadly. Climate change and populations trends are contributing to the increase in residual flood risk experienced, and largely borne, by residents of floodplains. Land planning has generally used the 1% AEP design level to allow flood plain development. Residents may or may not be aware this simply means rarer, extreme floods (0.5%, 0.2%, etc) may inundate their property or leave them on a high flood island depending on where they are situated on the flood plain geographically. Growth in this category of residents likely contributes significantly to the increase in 'residual flood risk'. Historical growth trends overlaid with GIS flood design event sizes is needed to confirm this for each catchment - many catchments don't have these available hydrological models or the funding or desire to map it out. Through the HVFMS strategic review work of the past 4 years, the Hunter Valley does have these flood models, and they have been used to quantify the residual risk for current day and for future dates based on various cliamte change models. They are worth having a look at.
1.2 Preparation and planning	So these is a growing risk gap, and a very large current risk gap. In many cases structural defences (levees etc) are at design limits or

deemed economically unaffordable (CBA basis). Preparedness for floods by residents (structural, planning or other) is the current 'tool' of focus to offset this gap.
Research shows, most people don't prioritise preparing for floods. Emergency service organisations are the 'formal flood educations' and set out on their websites to teach epople about the risk of living on floodplains. The FloodSafe 8 Tips is a readily available document for interested residents. Tip 1 is Know Your Risk.
Research shows, disappointingly, that flood educaiton campaings have had little impact chanigng residents preparedness behaviours.
My review of the literature shows that we can't make our education campaigns more effective until we know a lot more about lived experience, pathways to knowledge, and specific beliefs residents hold about preparing for floods, including gauging their local flood risk.
My preliminary findings show the current understandings of this area are incomplete, and likely contribute to the stalemate in SES's risk communications' ability to change residents behaviour.
I have sought further ethics approval to extend my research sites and populations to explore the emerging issues and to contribute to practical shifts in education/riskk communication approaches.
My PhD will not be submitted until ealry next calendar year (I hope). My point is this, please do not assume that your inquiry timeline will enable you (and politicians) to know all there is to know about the isses and the contributing factors. Please actively create a pathway for these future findings to be brought quickly into the conversation in the way Resilience NSW reviews and changes policy settings, and, importantly for evidence-based changes in operational procedures, supports access to government agencies as research sites.

Supporting documents or images