PROJECT SUMMARY

Effectiveness of land use planning flood controls on buildings

RESEARCH TEAM

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SUPPORTING ORGANISATIONS

New South Wales Department of Planning, Housing and Infrastructure

Project duration: 18 months

Background

Flooding is one of the most significant natural hazards affecting communities across Australia, with severe social, economic and environmental consequences.

Land use planning serves as one of the critical controls for mitigating flood risk by guiding where and how homes, business and infrastructure are built. Effective planning controls can influence the exposure and vulnerability of communities to flooding, ultimately enhancing resilience and reducing long term impacts.

The need for this research stems from the floods that impacted NSW between 2020 and 2022. During these events, the Northern Rivers region alone had approximately 4,000 homes rendered uninhabitable, 10,500 homes damaged, and over 7,000 people displaced. The Insurance Council of Australia estimated insurance claims from January to July 2022 at $5.19 billion, highlighting the urgency of understanding whether existing planning measures sufficiently mitigate flood risks.

Project description

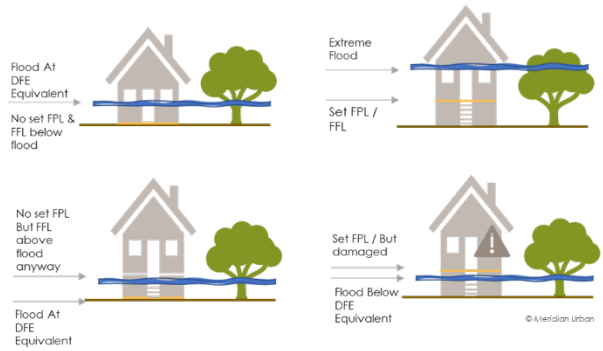
The project will provide an evidence base to understand the effectiveness of New South Wales (NSW) land use planning provisions and development controls in addressing flooding for land releases and buildings that have been built or modified in the last 10 years.

The research will be used to inform future review of existing NSW legislation, standards and policy from which improved risk-based land use planning outcomes can be developed. It will also inform national policy by providing the evidence to strengthen land-use planning provisions, refine flood controls, and guide policy improvements, and offer suggestions to improve practice and policy administration.

Through two national stakeholder workshops, the final report, and other knowledge sharing opportunities, this project will identify and share insights and lessons that may be used to inform future directions for flood policy in planning jurisdictions in other Australian states.

Intended outcomes

A key outcome of this work is in understanding the various dimensions of the effectiveness of the planning controls, and what could influence their effectiveness. There are multiple scenarios of the relationship between flooding events and planning controls that need to be examined, such as those below:



For example, it may be that in some case study circumstances the planning control was applied as intended (with the resultant building also developed as intended), but that the flooding exceeded the defined flood event used in the control. This is an important difference – it indicates the need to differentiate between poor controls, limited application of otherwise effective planning controls, and whether current controls (while being applied appropriately) may no longer be suitable or sufficient to manage increasing risk – such as events of increasingly severity resulting from climate change. A core outcome of the project is to highlight these scenarios and propose solutions to address any shortcomings in flood related planning policy in the NSW context.

Translation and implementation potential

The project will provide a robust evidence base for NSW planning authorities to review existing statutory policies, processes and instruments against the outcomes of the research to see where improvements and refinements can be made to increase the impact of flood related planning controls on disaster resilience.

Nationally, representatives of planning systems in other Australian states will also be able to review the findings to inform maturity in risk-based land use planning in these other states.

The Centre will also drive further drive communication of the project and its outcomes through it various research and media platforms.

Further information

For full project details head to: https://www.naturalhazards.com.au/research/research-projects/community-led-recovery-evidence-dimensions-and-supports-community

Or contact Mary.Caddedu@naturalhazards.com.au