

Get Flood Ready: Raising public awareness of flood risk

***Nancy Baines, Steph Harrowell, Nick Brown & Fiona Macdonald
(Auckland Council)***

Flooding is Tāmaki Makaurau Auckland’s most common natural hazard, causing damage to property and infrastructure as well as posing a risk to life and injury. The March 2022 floods alone cost \$120 million in insurance claims¹. 170,000 Aucklanders live, and 55,000 buildings are situated in floodplains across the region², in total 105,000 buildings are exposed to at least one form of flood hazard – floodplains, overland flow paths and flood prone areas. Flood hazards also impact public areas such as roads and parks, putting all Aucklanders at risk of encountering flood waters. Most stormwater catchments in Tāmaki Makaurau Auckland are small and steep resulting in flash flooding. With little warning time, people need to be prepared and know what actions to take to keep themselves, their whānau, and their property safe.

Climate change is increasing the frequency and severity of flooding. Building infrastructure solutions to all flooding issues is not viable or desirable. Education can be a widescale approach and a vital tool in the overall management of flood risk.

Auckland Council has a wealth of data about flood risk and publishes information via Geomaps and LIMs. While information is publicly available, historically it has been hard to access for non-professionals. Many people believe that responsibility for flood risk lies solely with Council. The Healthy Waters department is undertaking a project to raise flood awareness by increasing the accessibility of its data and partnering this with information about what individuals and communities can do to manage flood risk. A deeper understanding of responsibilities will encourage action to be taken at a local level with joint solutions.

While national and regional policy has recognised the importance of public awareness of natural hazards, there is no national communication strategy or implementation plan. Common themes of strengthening resilience, engaging people and supporting communities are present in regional scale policy through Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan, The Auckland Water Strategy, and nationally in the National Adaptation Plan. Public awareness is interwoven through each of the National Emergency Management Agency’s (NEMA) 4 Rs: reduction, readiness, response, and recovery.

¹ <https://www.icnz.org.nz/media-resources/media-releases/single/item/2022-extreme-weather-insurance-claims-near-200m>

² Buildings $\geq 60\text{m}^2$. Published floodplains on Geomaps for a 1% AEP event and combination of current and future development and climate scenarios.

Healthy Waters has identified an opportunity for increased education to support its work across the 4 Rs. The project aims are:

- Raising awareness of flooding and its associated risks.
- Providing people and communities with information so they can understand their own flood risk and make informed decisions about how to manage it.
- Communicating who is responsible for managing flood risk and the benefits of joint solutions.

Increasing Aucklanders' access to information about staying safe and preparing their home and communities will strengthen their capacity to respond to and recover from extreme weather. Increased awareness helps people to know and understand their risk and to take action to mitigate potential danger and damage. Resilient communities can work together to take immediate action and to support each other throughout the 4 Rs.

Multiple departments in Auckland Council communicate about aspects of flood risk, including Healthy Waters, Auckland Emergency Management, Corporate Communications and Media and the Chief Planning Office. Collaboration across Council is key to achieving aligned, consistent and appropriately targeted communications and engagement. The project began with research to understand best practice for raising flood awareness in New Zealand and internationally. Taking these learnings and, with input from teams across Council, a communications and engagement strategy and implementation plan were developed.

Auckland Council uses the International Association for Public Participation (IAP2) framework for public engagement. Research has shown two-way engagement is more effective at creating behavioural change. Currently Healthy Waters public flood communication is predominantly one-way– primarily 'inform' on the IAP2 *Spectrum of Public Participation*. There is a dependence on Council for information and support with individuals being dealt with on a case-by-case basis which reinforces public expectation that Council takes responsibility for all flooding. Our objective is to do more work in the two-way engagement space ('consult' and 'involve' on the IAP2 spectrum, with potential to include 'collaboration' if resources are available). This will allow communities to decide what they need. Council will provide information and resources and people will support each other to gain knowledge and act. The aim is to increase individual and community networks to enhance independence and resilience.

Three key audience groups were identified, who would require different or more specific messages depending on their situation:

- *Everyone* - Any person might encounter a flood hazard in Auckland, for example road flooding when travelling around.
- *Exposed* - These people live in predicted flood hazard areas.
- *High Risk* - These people live in properties at high risk of dangerous flooding, i.e. high water depths and/or velocities, presenting a risk to life.

Within each of the audiences, there will be subgroups of people who have experienced flooding, and those who have not. The key audience groups will have different needs at different times.

Healthy Waters is developing a 'toolbox' of collateral to assist public engagement. The materials produced are hosted online so will be available to all audiences. These materials will provide a base for the development of bespoke advisory information for the Exposed and High Risk audiences:

Tāmaki Makaurau Auckland Flood Viewer - providing a one-stop-shop for everything people know about flood risk. By visiting the viewer people can find out if their home or somewhere they care about is at risk from flooding, what that means, and what steps they can take to prepare. A brand can be built around the viewer thanks to its vanity URL.

Historical Extreme Events – an interactive map holding over 880 newspaper articles and pictures of extreme weather events that have impacted Tāmaki Makaurau Auckland since 1886. The aim is for people to see that flooding and other natural hazards have affected places they care about before and will again. People should expect and prepare for future events. This is a joint project with the Resilient Lands and Coasts team and is being used for public engagement in the Shoreline Adaptation Plans. The map can be used by engagement practitioners to help build a story about a particular area, event or time. This story could then support a project business case, funding bids, etc.

Flood Risk animated video series - titled: *Do's and don'ts of flooding, How to stay safe during a flood, About flooding and How to prepare your home for a flood*. These videos summarise key messages in an engaging and easy to access format. The videos were developed in collaboration with Auckland Emergency Management and have joint branding, allowing both departments to use and share the videos. The videos, or shorts taken from the videos, can be shared on social media. The videos are available on YouTube, our engagement pages and the new flood viewer.

The 'toolbox' will allow:

- People to know and understand the risk for their property and their person.
- Provide a range of resources that enable various ways to reduce risk before, during, and after a flood event.
- People to become increasingly aware of and accept responsibility for their personal and property flood risk.
- Healthy Waters to effectively use public engagement across all the 4 Rs of Emergency Management.

Tāmaki Makaurau Auckland's experience is not unique but affects a third of the country's population. Auckland Council wants to collaborate with other organisations raising flooding awareness across Aotearoa. Sharing objectives,

methods and learnings can align our approaches and help identify common standards.

Through the work done to date, Aucklanders have greater access to Council's information and advice that allows them to make informed decisions about managing their flood risk. The collateral developed will serve as a strong foundation for bespoke advisory engagement with higher risk audiences.

KEYWORDS

Flood risk, public awareness, engagement, education, resilience, readiness,