



Flood resilient communities put people first

WATER RESOURCES

Our team helps to create flood resilient communities.

We partner with stakeholders to identify, understand, and plan for the increased flood risk resulting from climate change. Tackling these challenges across the entire spectrum of flood emergency management ensures our communities become more resilient.

This allows local emergency service personnel and our communities to effectively plan for, monitor and respond to flood in a more timely and safe manner making them more resilient to flood. Understanding the impacts of past flood events helps inform future planning. The extreme flooding events our communities have lived through play an important role in informing the types of plans, triggers and actions that are required. Recent events are also an education opportunity to contextualise flood risk for communities and disaster management agencies.

At Stantec, our Flood Resilience team have a wide array of services to help communities become more resilient to flooding. Our services include Total Flood Warning System (TFWS) Review, Flood Classification Review, Community Flood Action Planning, Emergency Flood Management Planning, Flood Warning Infrastructure Network Design and Analysis and Modelling of real time data.

Our project experience

We have extensive recent experience in various types of flood resilience planning and implementation projects. Our teams gather data, liaise with local authorities, government agencies, councils and emergency services to supply critical plans and intelligence to assist with flood response.



Bega & Broga Total Flood Warning System Feasibility Study

This project delivered improvements to local flood risk awareness and preparedness for communities living in the Bega and Broga River Valley region of New South Wales.



Fraser Coast Total Flood Warning Review

Stantec worked with Fraser Coast Regional Council in Queensland to review and define the changes needed to better prepare and enable the community and the local disaster management group to achieve a more informed and improved disaster management response to flood.



Wagga Wagga Flood Warning System

This project achieved significant outcomes in the improvement of flood forecasting and flood warnings in real time. The Wagga Wagga community, and upstream villages such as Oura now have a better understanding of flood behaviour based on past events.

Our services

Total Flood Warning Review

We advocate the utilisation of the Total Flood Warning System (TFWS) concept encompassing the entire spectrum of flood emergency management actions and decisions. This includes flood monitoring and prediction, interpretation, message construction, communication, protective behaviour and review.

We have extensive knowledge and experience to draw upon when reviewing an organisation's role and responsibility under the TFWS. Collaboration and education are at the centre of the concept.

We adopt a locally-led methodology, engaging disaster management agencies and the community to ensure tailored solutions and outcomes are achieved. At Stantec, we believe this holistic approach to reviewing a community's TFWS delivers the best outcomes.

Community Flood Action Planning

At Stantec we design with the community in mind. When constructing a Flood Action Plan for a community it's critical to ensure there are clear and concise triggers and actions to follow for the community in an emergency.

Our practical experience helps us to understand the real impacts and history of past flood events and work with your community to build a plan that is right for you.

Multi-Agency Flood Operation Planning

We have years of real-life experience, working in operational centres during floods and understand the challenges that exist when operating across multiple agencies.

This experience and knowledge, puts Stantec in a unique position to work with local agencies to construct plans that are agile and intuitive to ensure things run as smoothly as possible in the next flood.

Flood Classification Review

The Bureau of Meteorology utilise three classifications to outline the severity of a flood event – minor, moderate and major. The Stantec Flood Resilience team is here to support local authorities to review their flood classifications including the operationalisation process with the Bureau of Meteorology.

We can help prepare ready references to aid in impact forecasting and engage with the community to ensure everyone is on the same page when the next flood hits.



An effective community flood action plan outlines what the community should do when responding to a flood event.

Nicole Bichel
Practice Leader - Flood Risk



Research

- Flood studies
- Community consultation
- Community engagement

Planning

- Community Flood Action Plans
- Total flood warning reviews
- Flood emergency response plans

Operations

- Research, Planning and Improvements phases combined to inform Flood Operations

Improvements

- Stormwater upgrades
- Flood mitigation
- Monitoring network
- Flood risk management plan



Stantec is a global leader in sustainable engineering and environmental consulting. The diverse perspectives of our partners and interested parties drive us to think beyond what's previously been done on critical issues like climate change, digital transformation, and future-proofing our cities and infrastructure. We innovate at the intersection of community, creativity, and client relationships to advance communities everywhere, so that together we can redefine what's possible.

[STANTEC.COM/AU](https://www.stantec.com/au)

