

# Bundaberg Flood Action Plan

Estimating the tangible and intangible costs and benefits of flood mitigation strategies in Bundaberg



## LOCATION

Bundaberg, QLD

## CLIENT

Department of Infrastructure,  
Local Government and Planning

COST-BENEFIT ANALYSIS

## Background

Following the devastating 2013 floods, the Bundaberg Regional Council and the Queensland Government worked with the Bundaberg community to identify actions to be taken to reduce flood risk to the people of Bundaberg, their homes, businesses and the local economy. The development of a 10-year action plan is part of a broader package of initiatives that are building Bundaberg's resilience to flooding and is focused specifically on the delivery of key works and measures that aim to reduce the effects of flood events in the region.

The Bundaberg 10-year Action Plan was a roadmap that sets out the action required to reduce flood risks in Bundaberg. It builds on projects undertaken by the Bundaberg Regional Council and harnesses the collective knowledge of the Bundaberg community, experts and government to prioritise cost-effective flood mitigation solutions for the people of Bundaberg, their homes, businesses and the local economy.

## Our role

NineSquared was engaged by the Department to undertake an economic cost-benefit analysis for a number of proposed flood mitigation strategies in Bundaberg. Each project option was aimed at reducing flood risk to different areas of the Bundaberg region. These options ranged from large scale infrastructure projects to minor road upgrades and mitigation options.

NineSquared undertook an assessment of the tangible damages of properties in the flood impacted homes based on flood damage curves and historic Bundaberg Regional Council data, utilising inhouse geographic information system (GIS) capabilities to assess the impact of floods on different properties. A literature review was undertaken to identify best-practice for the quantification and monetising of non-market, flood related impacts. This was included in the economic cost-benefit analysis which quantified and monetised the risk associated with loss of life, health impacts, social isolation, impact on learning outcomes and disruption amongst others.

The work undertaken by NineSquared formed a critical factor in which projects advanced to the next stage of analysis. As a result of the analysis, decision makers were able to identify the projects with the greatest potential pay-back to investigate further in the next stage of the project.

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## **FOR FURTHER INFORMATION**

For more information, find one of our experts at [ninesquared.com.au/people](https://ninesquared.com.au/people)