

# Bundaberg flood protection study

Developing a 10-year action plan for flood mitigation in Bundaberg.

## What is the Bundaberg Flood Protection Study?

The Bundaberg flood protection study is a vital component of the Queensland Government's commitment to developing a 10-year action plan for flood mitigation works in Bundaberg. The study, which was undertaken in two stages, provides recommendations regarding potential mitigation options and suggestions regarding next steps to be considered when progressing the action plan.

### What did the study involve?

#### Stage 1 – undertaken in late 2015

Reviewed previous work undertaken by Bundaberg Regional Council in 2013 and engagement with local communities in Bundaberg to gather information on flood behaviour and other possible solutions for flood management

#### Stage 2 – undertaken in 2016

Assessed 11 flood mitigation options, including those identified by community members in Stage 1. Consultation on the findings of the preliminary options assessment was held with local communities and feedback was considered in completing the Bundaberg Flood Protection Study

### What mitigation options were assessed?

The flood mitigation options assessed included a mix of works that involve changing flood behaviour and measures that change how residents on the floodplain respond to flooding.

#### Works assessed to change flood behaviours

- Levees at Bundaberg North and Bundaberg East
- Removal of downstream levees at Fairymead
- Bundaberg North floodway
- River dredging, removal of Harriet Island and widening of Millaquin Bend
- Diversion of flow from the Burnett River into other river catchments (e.g. Elliot River)
- Dam or dams in upper Burnett River catchment

#### Measures assessed to change resident response

- Evacuation route improvements at Bundaberg North
- Evacuation and flood access route improvements in the upper Burnett River floodplain
- House purchase / land swap

### What did the assessment of each option consider?

A range of matters were considered for each option including:

- Any issues that may make construction or operation not viable (e.g. affordability, impact on environment, impact on others)
- Estimated costs of the option compared to the estimated benefits
- How the option performed against four objectives and a number of supporting criteria (relating to people, property, long-term benefits, and social, economic and environmental issues)

## What were the key findings of the study?

### Options recommended as appropriate for further investigation and consideration

#### Option D: Bundaberg East levee

- Would provide a moderate to high reduction in flood risk for a large part of Bundaberg East, Bundaberg South, and parts of the CBD
- Benefits (reduction in flood damages) would be similar to estimated costs of construction and maintenance
- Broadly meets the project objectives, scoring relatively well against supporting criteria

#### Option K: Upper floodplain evacuation improvements

- Would provide significant improvement in access during floods for residents in the upper floodplain areas of Goodnight Scrub, Morganville, Pine Creek, Givelda and Electra
- Benefits in frequent events due to the frequency of isolation from flooding currently experienced by residents in relevant areas (about every two years)

#### Option H: Bundaberg North evacuation routes

- Would result in a significant improvement to access during floods for a large number of floodplain residents in Bundaberg North and Gooburrum
- Duration of isolation and the large numbers of residents isolated during flood events, means this option can reduce reliance on emergency services during flooding

#### Option J: Floodway house purchase scheme

- This would involve the voluntary purchase or relocation (via land-swap) of select residential blocks in Bundaberg North that are deemed to be in a floodway with high depths and velocities

### Options recommended as not appropriate for further investigation and consideration at this stage

- **Option F (Millaquin Bend):** Many of the benefits due to widening Millaquin Bend would overlap with the Bundaberg East levee option. While the study determined that further consideration of Option F is warranted it is not recommended at this stage, although this should be reconsidered if the Bundaberg East levee is not progressed or is delayed
- **Other options investigated:** The study determined that further investigation was not recommended of the six other flood mitigation options due to such things as cost of construction and ongoing maintenance, impact on others, low likelihood of obtaining environmental approvals, and social and environmental impacts

## What are the next steps?

The Queensland Government is currently reviewing the findings of the Bundaberg Flood Protection Study and is developing a 10-year action plan for flood mitigation in Bundaberg. The action plan will outline the next steps for further investigation and assessment. Engagement for the 10-year action plan will occur this year.

## Where can I find out more?

Further information regarding the 10-year action plan and assessment findings, including the full *Flood Mitigation Options Assessment Report*, are available at [www.qld.gov.au/bundabergfloodstudy](http://www.qld.gov.au/bundabergfloodstudy). Alternatively, call 13 QGOV (13 74 68) for further information.