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

Option D – Bundaberg East levee
Option D includes construction of a levee along the south bank of the river to reduce flooding in Bundaberg East. It would require construction of two floodgates (with one large floodgate for Saltwater Creek).

Stage 2 of the Bundaberg flood protection study involves assessing 11 flood mitigation options, including those identified through consultation with the Bundaberg community in late 2015.

The following provides an overview of the assessment of Option D.

Viability
A key step in the options assessment involves identifying issues that may mean construction or implementation of the option is not viable. These relate to matters such as:

- The likelihood of obtaining environmental approvals, due to unacceptable environmental impacts
- Significant or unaffordable costs of construction or ongoing maintenance
- Potential for unacceptable impacts on other areas.

An option is considered to be unviable where the assessment identifies one or more of these matters are ‘unlikely to be achieved’.

The assessment of Option D found that this option will be viable. Environmental impacts are likely to be low because of the urban nature of the levee route. Adverse impacts outside the benefitted area will be tolerable as the levee will prevent flood water from the river backing up into Bundaberg South rather than diverting flows.

Costs and benefits
Initial cost estimates indicate that construction of Option D would be approximately $30 to $35 million. Maintenance costs are approximately $500,000 per annum. The total cost of the project including ongoing operation and maintenance of the option is $38 million. Estimated reduction in flood damages (i.e. the tangible benefits) of this option is around $29 million.

Summary of assessment against key criteria

- This option would prevent floodwaters from the Burnett River backing up into Bundaberg South for events up to the 1.5% AEP flood event.
- This option would provide protection for about 440 properties up to the 1.5% AEP (70 year ARI) flood event.
- It would reduce flooding for about 320 properties in the 1% AEP flood event.
- A flood-gate structure would be required across Saltwater Creek to prevent Burnett River back-up flooding but allow local floods to pass.
- There is a risk that people inside the levee become complacent about flood risk and become less resilient during events which overtop the levee.
- Localised rainfall that causes flooding in Saltwater Creek may inundate properties to a greater amount if the event occurs concurrently with a Burnett River flood and the flood gate is shut.
- Construction and on-going maintenance of this option would be in the order of $38 million.
- The costs for this option are similar to the estimated monetary benefits.

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1 1.5% AEP flood is the name given to a flood event which has about a 1 in 70 or 1.5% chance of occurring in any year. It would be similar to the January 2013 flood.

2 1% AEP flood is the name given to a flood event which has a 1 in 100 or 1% chance of occurring in any year.
Option overview

Option D aims to protect Bundaberg East by constructing a levee on the river bank and across the Saltwater Creek floodplain. The levee would protect the Bundaberg East area from inundation from the Burnett River in the 1.5% AEP flood event.

It would involve:
- Construction of a levee generally following Quay Street and a section heading north towards the mill. The levee would be a combination of concrete wall and earth mound.
- A flood gate across Saltwater Creek, which would be closed during times of Burnett River floods.

Figure 1: Option layout

Find out more about this option

Community consultation on the flood mitigation options and the findings of the options assessment will take place from 24 October to 20 November 2016. To find out more about the flood mitigation options and to provide your feedback:

Visit the website
www.qld.gov.au/bundabergfloodstudy

Interactive mapping is available on the website so that you can see how the flood mitigation options would change flooding in your area.

Contact the project team
Email: bundabergfloodprotection@jacobs.com
Telephone: 1800 994 015 (during business hours)

Next steps

The Bundaberg flood protection study is due to be completed later this year. Engagement on the 10-year action plan will occur in 2017. It is important to note that the flood mitigation options have not yet been considered by the State government and are not government policy. No commitment will be made on any of the options until the State government has consulted with the community and stakeholders on the 10-year action plan.

The Queensland Government will continue to engage with the Bundaberg community as the action plan develops.