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

Option F – Millaquin Bend widening
Option F involves deepening, widening and regular maintenance dredging of a section of the left bank of the Burnett River by excavation and dredging to improve flood conveyance through a constricted part of the river.

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 F.

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 F found that this option may be viable with modifications to reduce impacts to areas outside of the benefited area. Dredging and mangrove removal works may negatively impact the local environment, and there is no opportunity for staging.

Costs and benefits
Initial cost estimates indicate that construction of widening the Burnett River at Millaquin Bend would be in the order of $60 million. Ongoing, maintenance dredging would be required at a cost of about $3 million per year, bringing the total construction and maintenance costs to $95 million.

The preliminary flood damages assessment for this option suggests that the estimated reduction in flood damages (i.e. the tangible benefits) would be in the order of $30 million.

Summary of assessment against key criteria
- This option reduces flood levels within Bundaberg through increased conveyance in the Burnett River.
- Approximately 440 properties would not be inundated in the 1% AEP\(^1\) flood event.
- Much of the benefit from this option occurs within Bundaberg East, meaning that the majority of benefits of this option would be lost if it was built in conjunction with another option that reduces damages in East Bundaberg (e.g. a levee).
- The costs for this option would be about three times the estimated monetary benefits.

| Likelihood of obtaining environmental approval | 🟢  |
| Affordability | 🟢  |
| Tolerable impacts outside benefited area | 🟢  |

- Likely to achieve
- May achieve with modification
- Unlikely to achieve

\(^1\) 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. It would be similar to the January 2013 flood.
Option overview

Option F aims to increase conveyance within the Burnett River by reducing the flow constraint at Millaquin Bend. It would involve:

- deepening and widening of Burnett River through excavation and dredging activities, predicted to be 900,000 m$^3$ of cut
- Construction of an engineered rock revetment wall of 1.4 km length
- 10 m wide level terrace, with a batter slope at the edge down to -5 m AHD (1 in 20 slope)
- Possible acquisition of parts of properties (but not houses) along the eastern side of Mariner’s Way
- Removal of mangrove vegetation
- Regular maintenance dredging of this area.

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.