

Fact Sheet

March, 2014

Millaquin Bend Dredging

What would this project involve if funding was approved?

This flood mitigation project involves the widening and deepening of the Burnett River at Millaquin Bend to achieve better flow of water during a flood event.

The works would result in a good reduction in flood levels for both the north and south side of the Burnett River, and would benefit 436 properties that would no longer experience above floor flooding in a 1% AEP event (similar to the January 2013 flood).

The riverbed spoil material would be excavated and dredged mostly along the northern bank of the river, followed by construction of an engineered rock wall along the eastern side of Mariners Way to help mitigate flooding effects (see map at figure 2 on the next page).

It would also require the removal of an area of mangrove vegetation.

Spoil removal would be done using a medium trailer suction hopper dredge similar to the Port of Brisbane's dredge, and earth moving equipment to excavate and dispose of roughly 900,000 m³ of riverbed spoil and the construction of about 1.4 kilometres of rock wall, similar to a seawall (see figure 1 below).

Fast Facts

- Cost \$32.1 million, with an additional ongoing maintenance cost of \$2.1 million per year
- Reductions in flood levels for both north and south sides of the Burnett River
- 436 properties would no longer experience above floor flooding in a 1% AEP event (similar to the January 2013 flood)
- 900,000 m³ of spoil to be removed
- 1.4km long rock wall build following the spoil removal on Mariners Way side of river
- Widening to remove spoil to 5 metres below existing ground level



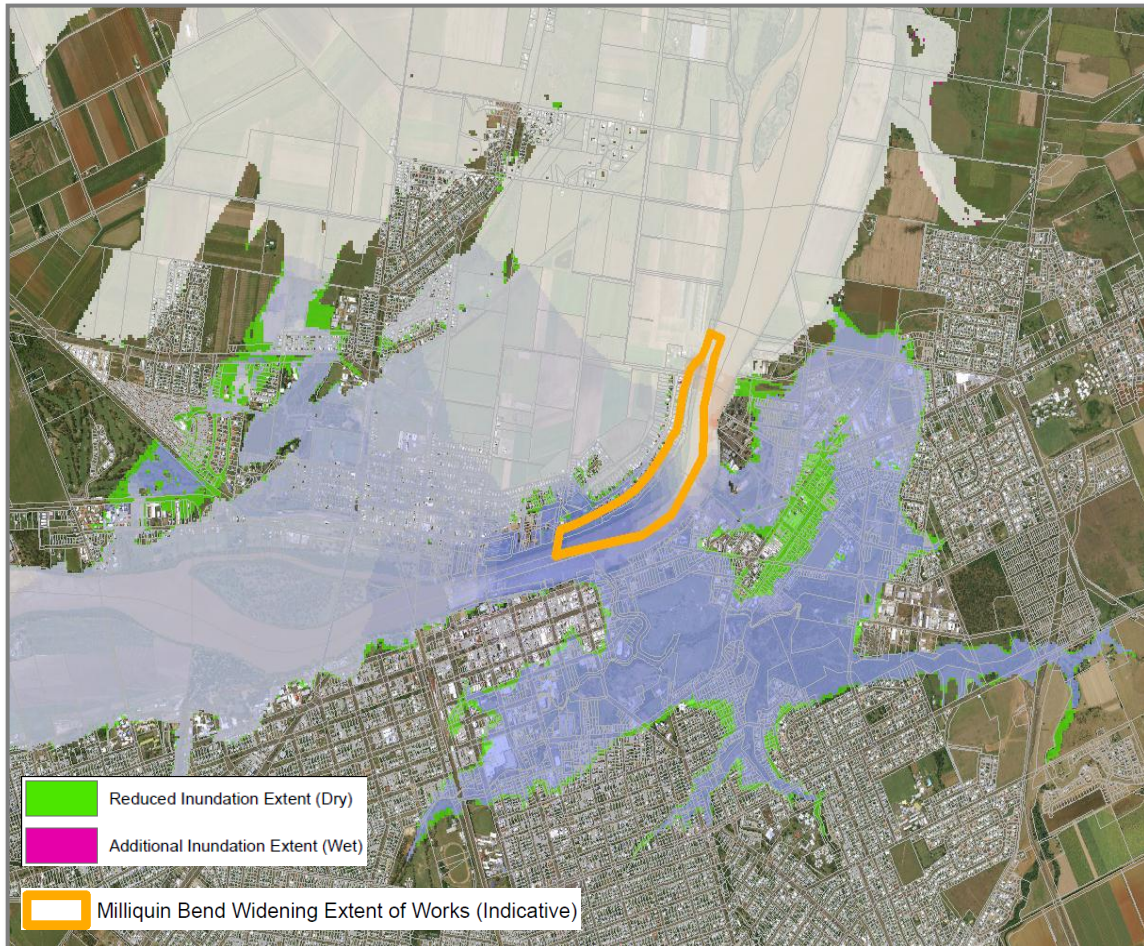
The upfront high-level costs of the Millaquin Bend Dredging works are estimated to be \$32.1 million, with an additional ongoing maintenance cost of \$2.1 million per year.

The mitigation benefits throughout the Bundaberg city area are substantial, considering the relatively small footprint of works.

Figure 1 (above): Example of a similar rock seawall which would be built along the eastern side of Mariners Way.



Figure 2 (below): Location and extent of the Millaquin Bend dredging is indicated in orange



Why not dredge the whole town reach?

The Council looked at many flood mitigation options, including levees, dredging, river widening works and diversion channels. These options were assessed using a state of the art computer model that accounts for the amount of flow in the river, the shape of the river bed and floodplain, tides, and many other factors. The options were looked at in terms of how much they can reduce the extent of flooding and the potential to save lives.



GHD tested many dredging options in the flood model. Of those options, localised river widening and dredging at the Millaquin Bend constriction was found to be the most viable option. This option was found to lower flood levels on both sides of the river at Bundaberg.

Dredging large parts of the river would involve removing extremely large volumes of material that would require proper disposal. The costs associated with dredging, ongoing maintenance dredging and proper disposal of dredged material make dredging large sections of the Burnett River an economical and unviable option. It also would have resulted in negative environmental impacts.

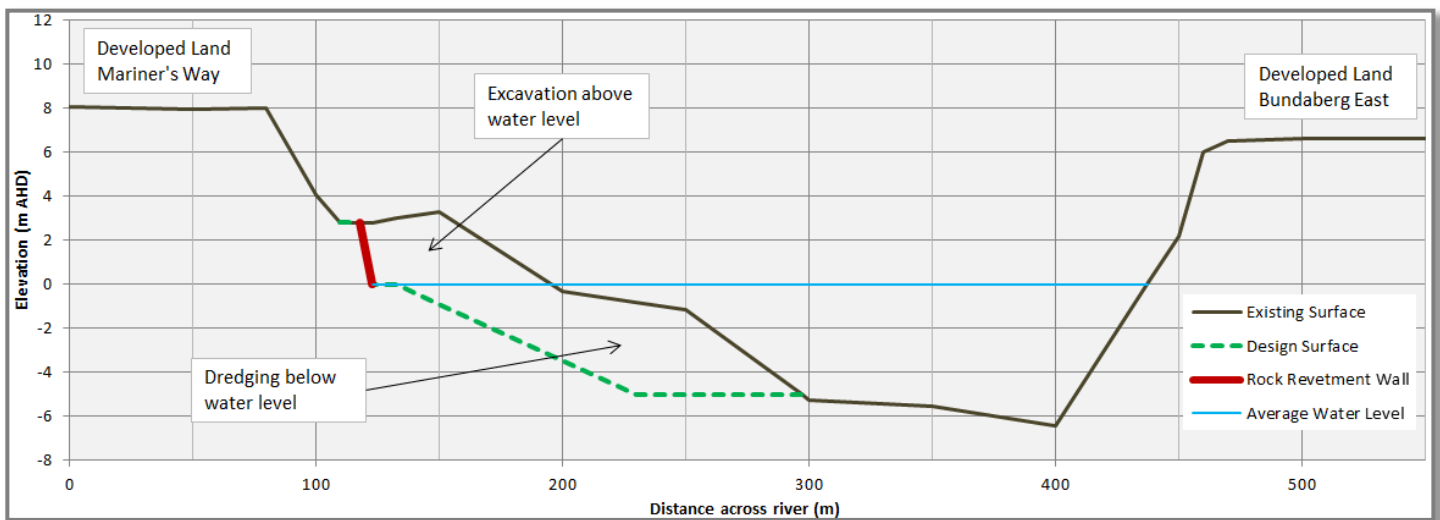


Figure 3 (above): Cross-section of the proposed Millaquin Bend dredging project

What's next?

Council has put forward seven infrastructure projects and several flood management initiatives to the Queensland Government for funding consideration. **These projects will form part of the overall Burnett River Floodplain Action Plan, which will also include other crucial floodplain management measures. Only the projects that receive funding support will be able to proceed.**

While we await funding decisions, our focus is on completing the Floodplain Action Plan. This involves rolling out initiatives such as flood gauge mapping, evacuation capability assessments and route planning, improved flood search certificates, and managing future flood risk through land use planning.

Where can I find out more?

Council has a dedicated webpage for flood-related activities at <http://bundaberg.qld.gov.au/burnett-river-action-plan> that provides all relevant information to the project. Further enquiries can be handled over the phone via 1300 883 699, or via email ceo@bundaberg.qld.gov.au.

