

# Bridge Extension, Upstream & Downstream Shoal Extraction



northern  
beaches  
council

## Option FM5

Capital Costs (excl. GST): **\$6,519,000**  
Draft Structural MCA Rank: **11**



XXXX Dredging Area  
— Option Layout  
1 in 100 Year Event

### Description

This would involve extracting the flood tide delta shoals upstream and downstream of the Ocean St Bridge (i.e. FM4) in conjunction with option FM1 to extend the bridge, which may reduce the observed flow constriction around the bridge observed in the model results for extreme flood events and thus locally reduce flood levels.

### Modelling Results

The results of the simulations show that Option FM5 is effective in its aim to reduce flood levels. Compared to a fully shoaled entrance, Option FM5 reduces flood levels throughout the lagoon by around 0.5 – 0.55 m for the more frequent floods of 1 in 5 year and 1 in 20 year. The 1 in 100 year flood has reductions of between 0.43 – 0.48 m while the 1 in 1000 year has reductions in the lagoon of between 0.37 – 0.42 m.