

Resilient Coast Strategic Plan – Supplement C

Storm tide inundation mapping




This document is part of Supplement C to the Douglas Shire Council Resilient Coast Strategic Plan (2019 – 2029)¹.

The Cairns Regional Storm Tide Inundation Study (BMT-WBM 2013, re-issued 2017) provides inundation extents and depths for the Douglas Shire region for a range of event likelihoods for the 2100 time period, including 0.8 m sea level rise².

The definition of coastal hazard areas identified for the Resilient Coast Strategic Plan has included mapping of outputs from the Cairns Regional Storm Tide Inundation Study at selected event likelihoods and time periods. Some components of the storm tide data and mapping for the Douglas Shire have been updated. Updates are based on outcomes of the technical investigations completed to inform the Resilient Coast Strategic Plan³.

The maps provided in Supplement C include the storm tide inundation extents for present day, 2060, and 2100. Guidance on how to interpret the maps is provided below.

Mapped storm tide inundation bands represent areas that may be prone to periodic inundation from the sea due to storm events. The bands provide an indication of areas that may be impacted by inundation (in the absence of intervention) and assist to identify focus areas for adaptation actions. Bands are indicative only, and do not represent a loss of coastal land.

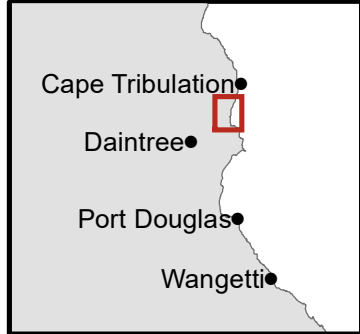
Storm tide inundation likelihood – bands	Events*
 Likely	Highest Astronomical Tide (HAT)
 Possible	1% AEP
 Rare	0.2% AEP

*AEP is the Annual Exceedance Probability – on average, the probability of an event occurring in any given year. The 10%, 1% and 0.2% AEPs have been modelled for each time period: present day, 2060 and 2100.

¹ Douglas Shire Council (2019b). Resilient Coast Strategic Plan.

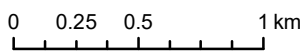
² As per the minimum standard and guideline requirements (LGAQ and DEHP 2016)

³ Detailed in the Phase 3 summary report (DSC 2018a) and Phase 8 summary report (DSC 2019a)



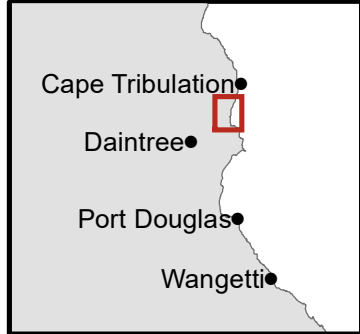
4. Thornton Beach
Areas prone to storm tide inundation:

- Present day - Likely
- Present day - Possible
- Present day - Rare



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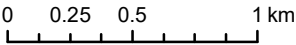
Produced by: Alluvium Consulting Australia and Jeremy Benn Pacific



4. Thornton Beach
Areas prone to storm tide inundation:

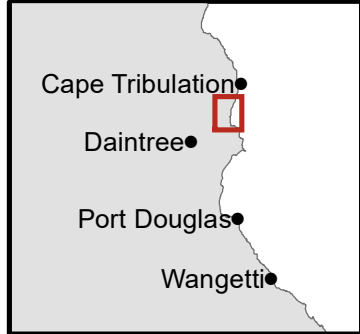
- 2060 - Likely
- 2060 - Possible
- 2060 - Rare

Map areas represent an intermediate timeframe (2060) interpolated between present day and 2100 mapping.




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4. Thornton Beach
Areas prone to storm tide inundation:

- 2100 - Likely
- 2100 - Possible
- 2100 - Rare



0 0.25 0.5 1 km



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