



Data Source:
 Cadastre, Road Centrelines and Topographic Information
 Northern Territory Department of Infrastructure, Planning and Logistics.

Map prepared October 2016 by:
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Storm surge reports and maps are available on www.nt.gov.au/emergency/cyclones/flood

GENERAL FEATURES

Building	Marine hazard
Road, track	Watercourse non-perennial
Tank: water/non-water	Watercourse perennial
Bore	Drain
Communication Tower	Coastline
Deformation areas	Clearing/mangrove/vegetation
Embankment	Coastal flat/swamp

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The technical information forming the basis of this storm tide (commonly known as storm surge) inundation mapping is contained in the following report prepared by SEA Pty Ltd.

"Remote Communities Storm Tide study and Inundation mapping" July 2016.

Using the storm surge levels and estimates of the Highest Astronomical Tide (HAT) from the above study, the inundation and HAT digital extents for the projected mean sea level in 2100 were developed by GHD in 2016 using latest topographic information available. The Primary and Secondary Storm Tide Zones as well as 1 in 2000 year and Extreme Storm Tide extent lines on this map were developed by NT Government. These Storm Tide Zones and Lines are considered to be indicative only.

Storm Tide (tidal influence + storm surge + wave setup) levels for Milingimbi were estimated from the above study for the four distinct Average Recurrence Intervals (ARI). The estimated 100 year, 1000 year, 2000 year and 10000 year ARI Storm Tide levels are 4.39 metres AHD (Primary Tide), 6.29 metres AHD (Secondary Tide), 7.10 metres AHD and 8.9 metres AHD (Extreme Tide) respectively. These are open coast estimates based on an off-shore site at Latitude -12.11, longitude 134.93.

The map shows the total storm tide hazard risk due to tropical cyclones in terms of the inundation water level comprising the combined effects of the highest astronomical tide plus storm surge plus wave setup for four statistical ARI's. The "Primary Storm Tide Zone" refers to the extent of inundation for a storm event of 100 year ARI (with approximately a 40% chance of exceedance within any 50 year period). The "Secondary Storm Tide Zone" refers to the further extent of inundation for a storm event of 1,000 year ARI (with approximately a 5% chance of exceedance within any 50 year period). The storm surge line for a storm event of 2000 year ARI (with approximately a 2.6% chance of exceedance within any 50 year period) is shown in a light blue line. The "Extreme Storm Tide Line" refers to the further extent of inundation for a storm event of 10,000 year ARI (with approximately a 0.5% chance of exceedance within any 50 year period) as shown in a red line. The extents do not include the possible effects of very localised wave runup.

Average Recurrence Interval (ARI) is also called Return Period of the Risk and is defined as the "average" number of years between successive events of the same or greater magnitude. The ARI of a storm event gives no indication of when a storm tide of that magnitude may occur. Highest Astronomical Tide is the highest ocean level expected for any combination of astronomical conditions alone and has an equivalent ARI approximately 18.6 years.

metres
 0 200 400 600 800 1000
 metres

Black numbered lines are 1000 metre intervals of the Map Grid of Australia (MGA) Zone 53
 Transverse Mercator Projection Horizontal Datum: GDA 94

Estimated HAT (Highest Astronomical Tide)	Primary Storm Surge Zone (100 Year ARI)	Secondary Storm Surge Zone (1,000 Year ARI)	2000 Year Surge Extent	Extreme Storm Surge Extent (10,000 Year ARI)
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**NORTHERN TERRITORY STORM SURGE MAPPING
 MILINGIMBI - MILINGIMBI ISLAND
 STORM SURGE INUNDATION for 2100**

NORTHERN TERRITORY GOVERNMENT
GHD
SEA