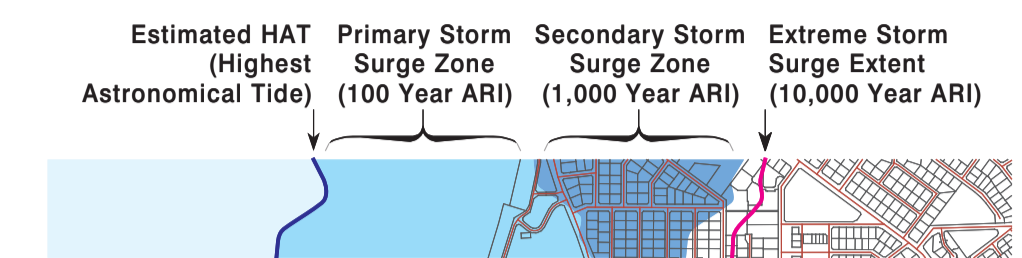


# DARWIN AREA STORM SURGE INUNDATION for 2100



The technical information forming the basis of this storm surge inundation mapping is contained in the following reports prepared for the NT Government by Systems Engineering Australia Pty Ltd (SEA) or GHD:

1. Darwin Storm Tide Mapping Study - 2006
2. High Resolution Storm Tide and Climate Change Impacts Study - 2010
3. Rapid Creek Storm Surge Tide Mapping, Mapping update - 2018

Using the storm surge levels and estimates of Highest Astronomical Tide (HAT) from the above studies, the inundation and HAT extents for the projected mean sea level in 2100 were developed by GHD Pty Ltd in 2014 and 2016 based on the latest topographic information (2009, 2011 and 2015). This map is produced by the NT Government for the Darwin area based on the storm surge inundation and HAT extents.

The map shows the total storm surge (technical terminology is storm tide) hazard risk due to tropical cyclones in terms of the ocean water level comprising the combined effects of astronomical tide plus storm surge plus wave setup for two statistical Average Recurrence Intervals (ARI). It also shows the estimated HAT extent. The 'Primary Storm Surge Zone' shown on the map refers to the extent of inundation for a storm tide event of 100 year ARI (with approximately a 40% chance of exceedance within any 50 year period). The 'Secondary Storm Surge Zone' shown on the map refers to the further extent of inundation for a storm tide event of 1000 year ARI (with approximately a 5% chance of exceedance within any 50 year period). 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 tide event gives no indication of when a storm tide of that magnitude may occur.

Highest Astronomical Tide (HAT) is the highest ocean level expected due to any combination of astronomical conditions alone and has an equivalent ARI of approximately 18.6 years. The HAT extent is used in this map as the reference for storm surge inundation. It is based on estimates of HAT levels derived from numerical hydrodynamic modelling that has not been verified by long term in situ measurements.

The Storm Surge information shown on the map is considered as indicative only.

For detailed interpretation of this map and further information contact:  
 Department of Environment, Parks and Water Security, Water Resources Division  
 4th Floor Goyder Centre, 25 Chung Wah Terrace,  
 Palmerston, Northern Territory.  
 T: (08) 8999 4455 Email: waterresources@nt.gov.au  
 PO Box 496, Palmerston, NT, 0831

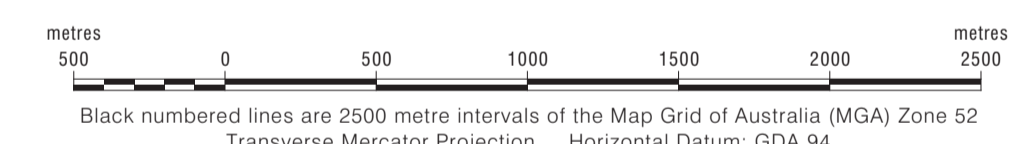
Storm surge reports and maps are available on <https://nt.gov.au/floods>  
 This map has been updated in **September 2020** and supersedes all previous versions.

### GENERAL FEATURES

Local Government Area	
Property / Road Boundaries (July 2020)	
Suburbs / Localities	
Major Road	
Minor Road	
Park / Reserve	
Railway	
Gas pipeline	
Watercourse, Lake or Lagoon	
Mangroves	

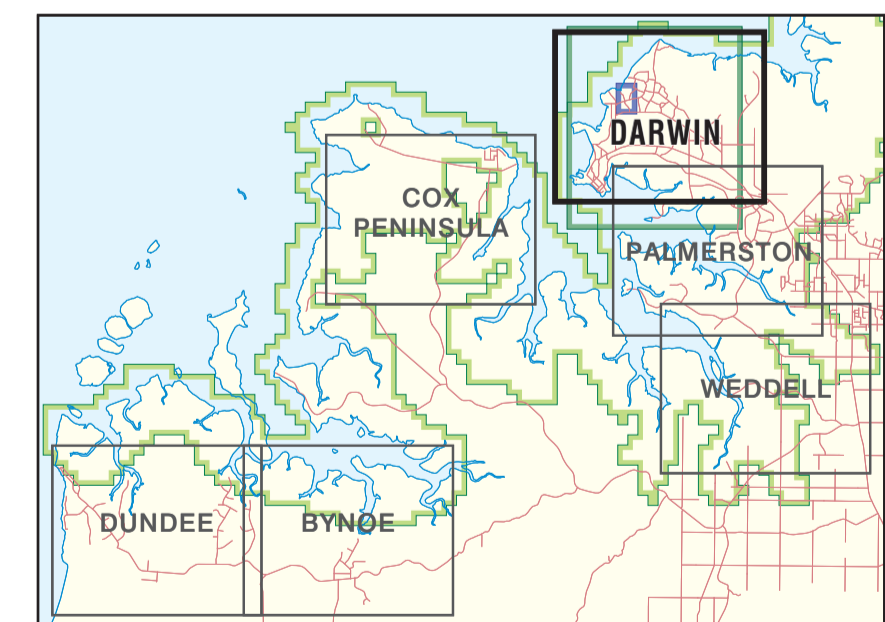
**Data Source:**  
 Cadastre, road centrelines and administrative information  
 Northern Territory Department of Infrastructure, Planning and Logistics.

**Map prepared by:**  
 Department of Environment, Parks and Water Security,  
 Geospatial Services Branch  
 Drawing No. DENR2020066



Black numbered lines are 2500 metre intervals of the Map Grid of Australia (MGA) Zone 52 Transverse Mercator Projection Horizontal Datum: GDA 94  
 This map was produced on the Geocentric Datum of Australia 1994 (GDA 94)

### INDEX TO DARWIN REGION STORM SURGE MAPS



### Extent of topographic information

