

### What is the Coastal Hazard Mapping?

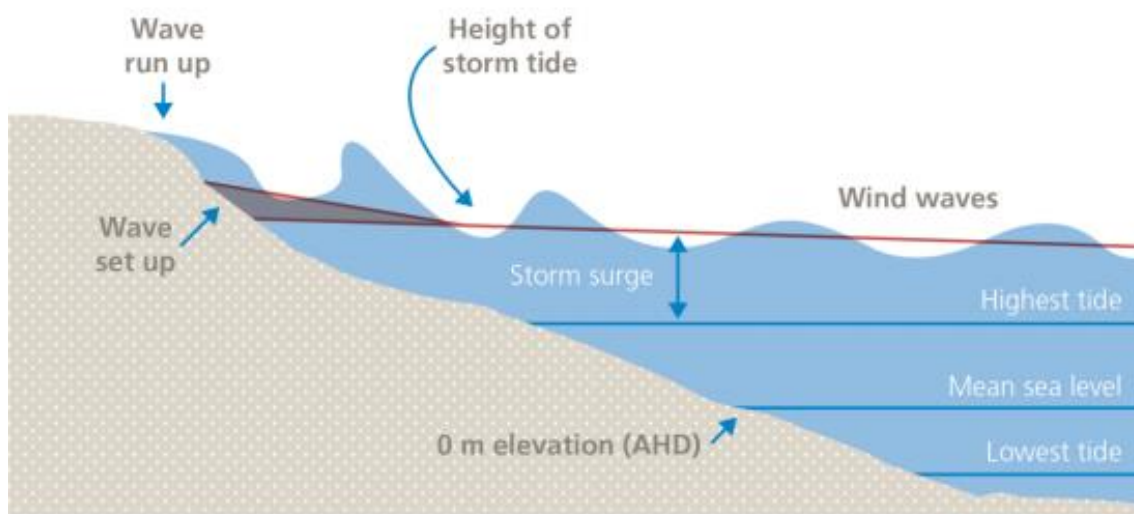
The Coastal Hazard Mapping for the Bundaberg Coastal Hazard Adaptation Strategy (CHAS) depicts the extent of the Highest Astronomical Tide (HAT), storm tide inundation and areas prone to coastal erosion (erosion prone areas).

### Highest Astronomical Tide (HAT)

The average of recorded high tides.

### Storm tide inundation

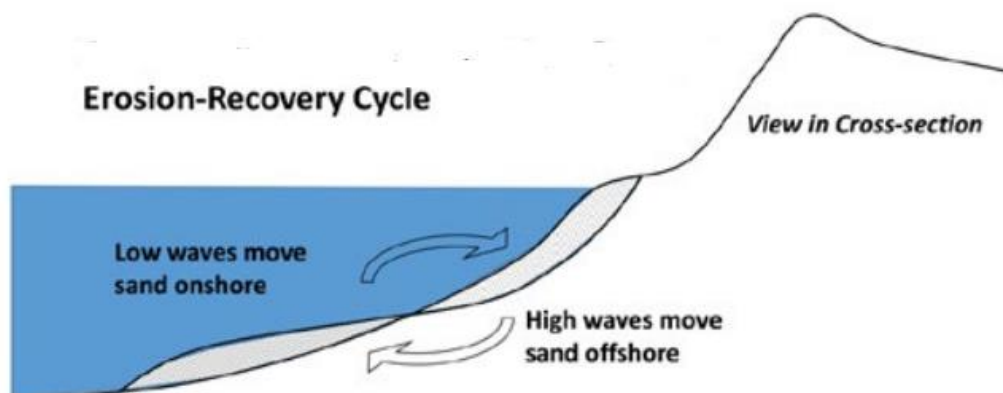
Storm tide inundation or coastal flooding by the sea is caused by an abnormal elevation of the sea level over expected tide levels.



(Source: CoastAdapt from The State of Victoria, Department of Sustainability and Environment 2012.)

### Coastal Erosion

Coastal erosion is the loss of coastal lands due to the net removal of sediment or bedrock from the shoreline. Coastal erosion can be caused by winds, wave and other natural forces. Beach erosion occurs when waves and currents remove sand from the beach system.



(Source: Cross-shore and alongshore concepts of dynamic equilibrium, developed by CoastAdapt)



*(Source: Bundaberg Regional Council)*

### **Summary**

The Our Coast project team have chosen to show a more extreme event known as the 1% Annual Exceedance Probability (AEP) event (also known as the 1 in 100 year event) alongside a more frequent event, the 5% (AEP) or 1 in 20 year.

Coupled with these two storm tide events that can happen in present day sea level conditions, the team have also shown a sea-level rise scenario of up to 0.8m. This number represents an extreme sea level rise scenario predicted by scientists.

The predicted rise in sea levels, coupled with severe weather events can provide the combinations necessary for some shoreline areas to be threatened through erosion and inundation.