

COASTAL HAZARD ADAPTATION STRATEGY



Understanding coastal hazards

WHAT ARE COASTAL HAZARDS?

*Coastal communities are vulnerable to impacts from coastal hazards such as coastal erosion and storm tide inundation. Both **coastal erosion and storm tide inundation are naturally occurring coastal processes** and the impacts of these coastal hazards are predicted to increase in the future as a result of projected sea level rise and the increase in cyclone intensity.*

Coastal erosion can be classified as short term or long term and results in the loss of land to the sea. Short term erosion occurs as a result of extreme weather events such as a severe storm or cyclone. After the event has passed, normal beach processes usually result in the beach being restored naturally. Long term erosion happens slowly over time as a consequence of changes in water level and currents. The impacts of the changing climate mean that sea level rise will increase coastal erosion with land being lost to the sea and low-lying land may be permanently inundated. Intensified cyclone activity will increase the severity of coastal erosion.

Storm tide is the combination of the normal tide and storm surge. Storm surge is the increase or decrease in water level associated with a severe weather event such as storm or cyclone. Storm tide inundation is the temporary flooding of low lying land caused by elevated water levels as result of a storm.

PO Box 3130
BUNDABERG QLD 4670
T 1300 883 699 F 07 4150 5410
E ourcoast@bundaberg.qld.gov.au
W bundaberg.qld.gov.au

Sea level rise will increase the severity and frequency of storm tide inundation and will cause inundation to occur further inland. The predicted increased cyclone and storm intensity from a changing climate will add to the magnitude of storm tide events and the extent of inundation.

WHY DO WE NEED TO PLAN FOR COASTAL HAZARDS?

*Both coastal erosion and storm tide inundation may adversely **impact on infrastructure, buildings and the natural environment** along the Bundaberg region coastline. We are currently experiencing erosion problems across the Bundaberg region including at Woodgate, Moore Park and Miara. It is anticipated the impacts from the changing climate will exacerbate these problems. Local economies may be affected through disruption to business as a result of coastal hazards. Social and cultural values may be affected as well as recreational opportunities.*

We need to plan now for a changing climate and how it may affect the coast. The benefits of planning now are:

- Understanding of the likely changes to the coast and vulnerabilities of existing assets
- Ability to plan for the protection of important assets (infrastructure, buildings etc)
- Avoidance or reduction in costs to the community and council
- Limitation or reduction to future exposure to risks through planning

Bundaberg Our Coast
ourcoast.bundaberg.qld.gov.au