

How does sea-level rise affect our coast?

Through the Coastal Hazard Adaptation Strategy (CHAS), Bundaberg Regional Council is actively planning to avoid or reduce the impacts of coastal hazards, both now and into the future.

Sea level rise and an increase in cyclone intensity for the Queensland coastline may result in permanent inundation of low-lying land, bigger storm tides and coastal erosion of the shoreline. These natural processes contribute to shaping the unique landforms of each coastal region but can have adverse impacts on our communities and settlements.

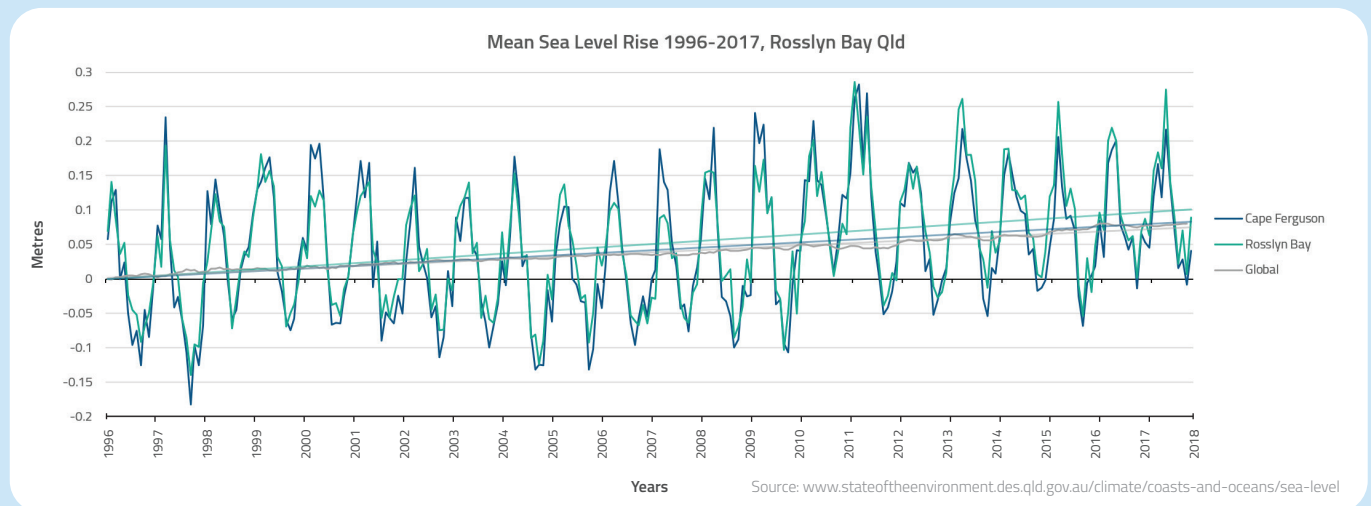
Sea-level trigger points

When sea levels reach certain points in the future, the coastal hazards may be intolerable, these are known as trigger-points for action. A risk informed and trigger based approach provides future investment certainty in an otherwise uncertain world. The Coastal Hazard Adaptation Strategy has adopted 3 increments of sea level rise being 0.2m, 0.4m, and 0.8m as triggers for action.

How do we measure sea-level rise trigger points?

Sea-level rise trends are measured by the tidal gauges at Rosslyn Bay (near Yeppoon). This tidal gauge indicates a sea level rise trend slightly higher than the global trend of 3.4mm per year.

Baseline sea level monitoring at Rosslyn Bay for the period 1996 to 2017 compared to the global mean sea level rise is shown here. **This data will be used as the sea level rise evidence for the Bundaberg Region.**



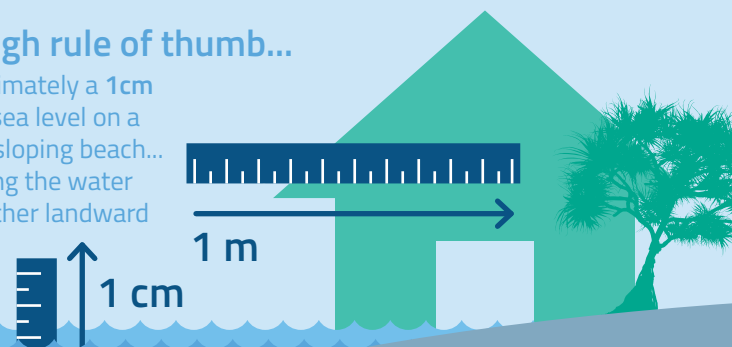
Sea-level rise increases exposure to coastal hazard risk

The Intergovernmental Panel on Climate Change (IPCC) projections for climate change are based on Representative Concentration Pathways (RCP) which capture future trends of how concentrations of greenhouse gases will change in the future and impact upon our climate, temperature and sea-levels.

- By 2100, sea-level rise on the Queensland coast is expected to reach 0.8 metres above the average level observed between 1986 and 2005
- Tropical cyclones will become less frequent but those which do occur are expected to be more intense and may track further south
- Significant economic costs, environmental and societal impacts occur as a result of these events

A rough rule of thumb...

Approximately a 1cm rise in sea level on a gently sloping beach... will bring the water 1m further landward



More information on coastal adaptation can be found at coastadapt.com.au or qcoast2100.com.au