



Project Update 2: August - September 2020 | Coastal Hazard Adaptation Strategy

Our Coast Our Future is a program being undertaken by Gladstone Regional Council to manage and adapt to current and future coastal hazard impacts on our coastline and communities. Coastal hazards include erosion of our sandy coastlines, and short or long-term inundation of low-lying areas. The current focus of the program is the development of a Coastal Hazard Adaptation Strategy (CHAS).

Since our last update, we have been focussed on

- listening to your experiences and reflections about living near the Gladstone region coastline
- building our understanding of local coastal processes and coastal hazards

What have you told us?

Through various engagement activities (surveys, online webinars, photo competitions and community meetings) you



What are our shared coastal values?

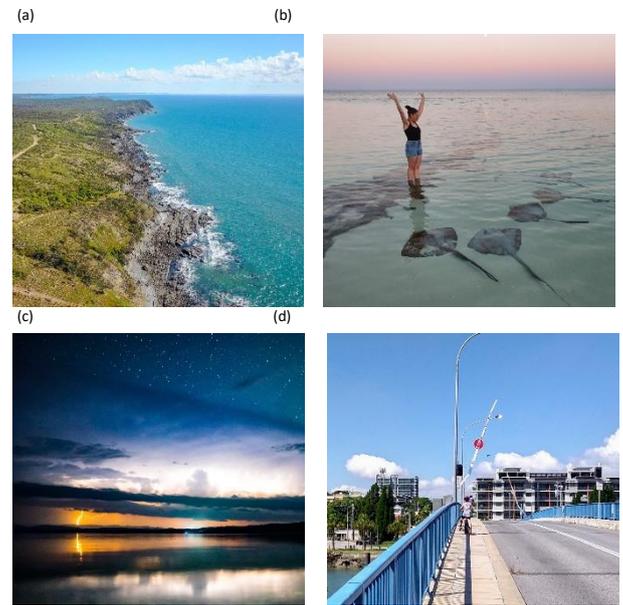


Photo Competition Entries: (a) Tim Cheetham (b) Kael Patchett (c) Ben Wardell (d) Jodie Patchett (Winner)

have shared your experiences of the coastline. Highlights from the 80 responses to the values and experiences survey include:

- 1 in 3 respondents visit the beach daily
- Half of all respondents had experienced coastal hazards
- 4 out of 5 respondents felt it was likely that the region will be affected by coastal hazards in the future

You have also told us what you love most about the Gladstone region coastline. Our coast is highly valued for its natural beauty and unique landscapes, as well as access to recreational opportunities, such as fishing four-wheel driving, and the Reef.

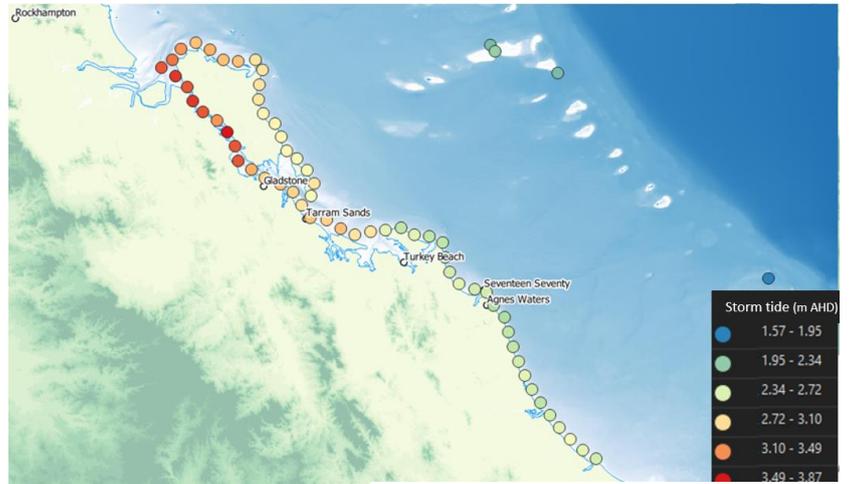
Some of you have witnessed changes to the coastline, including a loss of dunes and coastal habitats, as well as sand movements that periodically prevent safe access to local recreational infrastructure and favourite beach spots.

Our Coast. Our Future.

Understanding local coastal processes

So we can better understand what areas and assets (such as buildings and infrastructure) are likely to be impacted by future coastal hazards, the project team has completed new technical studies on coastal hazards in the Gladstone region. This has included:

- Historical shoreline analysis
- A new storm tide inundation model
- Analysis and refinement of Erosion Prone Areas



Modelled storm tides for Gladstone (m AHD)

The **historical shoreline analysis** shows the rates at which sand moves and where the shoreline is receding (ongoing erosion) and where sand is increasing (ongoing accretion).

Using water levels, winds, waves and historic cyclone data, the project team have developed a new **storm tide inundation model** for the Gladstone region. The new modelling provides information on potential inundation (i.e. temporary flooding from seawater) for different storm events, now and through to 2100.

We've also modelled and mapped **Erosion Prone Areas**, to identify areas that may be exposed to coastal erosion at the present day and by 2100. We looked at erosion potential at sandy, open coast beaches on Seventeen Seventy and Agnes Water, and at areas across the region that may become permanently inundated due to sea level rise.

Results of these technical analyses will help us better understand areas that may be impacted by coastal hazards now and in the future.



Community Meeting at Agnes Waters

What's next? Identifying adaptation options

Now that the coastal hazard areas have been updated, the next step is to assess whether different assets (ranging from turtle nesting zones to major highways, and foreshore structures to buildings) might be impacted. We can then explore ways to reduce (mitigate) the risk. This is called adaptation and is the focus of the next phases of the *Our Coast Our Future* program. A fact sheet on adaptation options can be found on the website conversations.gladstone.qld.gov.au/our-coast-our-future.

How can I get involved?

Contribute by completing the new survey on coastal adaptation by visiting conversations.gladstone.qld.gov.au/coastal-adaptation-survey

Subscribe to receive regular progress updates by going to our website conversations.gladstone.qld.gov.au/our-coast-our-future and clicking on the 'Follow' button

Ask the team questions about coastal hazards and adaptations by emailing ourcoastourfuture@gladstone.qld.gov.au