



## Our Resilient Coast. Our Future.

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This project update outlines the scope and key outputs for the technical work we are undertaking to inform our long-term strategy to manage coastal hazards.

### Next steps

Over the next 6 months we will progress the technical work for *Our Resilient Coast. Our Future*.

We will update coastal hazard mapping. We'll also prepare for community discussion about impacts and possible actions to reduce them.

### Where is the 'coastal zone' – how far does it extend?

The coastal zone for *Our Resilient Coast. Our Future* includes all areas of the Sunshine Coast Local Government Area that may be exposed to coastal hazards by 2100. This includes:

- Beaches and open coast areas that may be exposed to erosion, and
- Low-lying land (e.g. next to beaches and estuaries) that may experience short or longer-term inundation.

In some locations the coastal zone extends many kilometres inland from the coastline itself.

**Coastal hazards** are natural coastal processes that may have an adverse impact on how we use and enjoy the coast.

Hazards include erosion, and short- or longer-term inundation. Our [terminology factsheet](#) gives you definitions and information on coastal hazards.

### Coastal hazard mapping

#### What maps do we have already?

The State Government has state-wide mapping showing areas that are expected to experience coastal hazards by 2100. This includes areas that may be exposed to erosion and inundation in a major event by 2100. A major event is considered to have a 1% Annual Exceedance Probability (AEP).

These maps are publicly available online: [www.qld.gov.au/environment/coasts-waterways/plans/hazards/about](http://www.qld.gov.au/environment/coasts-waterways/plans/hazards/about).

#### What is AEP?

Annual Exceedance Probability (AEP) refers to the probability of an event (erosion or flood) occurring in any year. The probability is expressed as a percentage.

For example, a storm tide event which may be calculated to have a 1% chance to occur in any year, is described as 1% AEP. This is generally a major storm event and is often referred to as a 1 in 100-year event, however, can occur in any consecutive years and/or more than once in 100 years. The 5% and 10% AEPs represent less intense events that are likely to occur more frequently.

#### What maps will we be producing?

As part of *Our Resilient Coast. Our Future*, we are updating the existing State Government coastal hazard maps for a 1% AEP event by 2100 for the Sunshine Coast Local Government Area.

We are also assessing coastal hazard areas for the present day, as well as 2041, 2070 and 2100 planning horizons.

The new mapping will provide council and the community with improved confidence in our understanding of current and emerging coastal hazard areas from now to 2100.

The updated coastal hazard area assessments include:

Planning horizons	Assessed for
Present day	Erosion and storm tide inundation coastal hazard areas
2041	
2070	
2100	

Events (likelihood of exposure)	Assessed for each planning horizon for
10% AEP	Erosion and storm tide inundation
5% AEP	
1% AEP	
0.2% AEP	Storm tide inundation only

#### How are we including sea level rise?

The Queensland State Government requires a 0.8m sea level rise to be included for the 2100 planning horizon. This 0.8m allowance is based on current government policy and climate modelling presented by the Intergovernmental Panel on Climate Change (IPCC).

Our updated coastal hazard maps will provide a set of scenarios that include present day (no sea level rise) and potential future scenarios with the current sea level rise prediction factored in.

In a separate investigation, council has engaged CSIRO to review sea level rise predictions specifically for the Sunshine Coast. The CSIRO study concluded 0.8m to be appropriate for long-term planning along our coast.

Additional scenarios and case studies may be considered as we test the implications of lower or higher sea level rise as our technical work progresses.

## Assessing coastal hazard impacts

After mapping the potential extent of coastal hazards in the region, we will assess where assets may be impacted.

We currently have a large database of assets, including environmental, cultural, and built assets. This ranges from turtle nesting zones to major highways, and park benches to buildings.

We assess the coastal hazard risk for these assets by determining the likelihood of exposure (to erosion and inundation), and the consequence of exposure.

## Identifying adaptation options

Once we know which assets are at risk we will explore ways to reduce (mitigate) the risk of coastal hazards. This is called adaptation.

There are a range of adaptation actions that can be taken by council and stakeholders, including the community. These include:

- Initiatives to build adaptive capacity
- Future planning decisions
- Modifying infrastructure
- Coastal management and engineering.

A fact sheet on adaptation options is being prepared to inform discussions. We will involve stakeholders and the local community to identify possible adaptation options across each of these themes. This will be a focus of future consultation activities in later phases of the project. A timeline of phases is provided on the website.

#### How can I get involved?

From March to July 2019 we consulted with the community and other stakeholders. Insights from these conversations will be summarised in the August project update and is informing our technical assessments.

If you would like to find out more and be kept up-to-date with *Our Resilient Coast. Our Future*, please:

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[haveyoursay.sunshinecoast.qld.gov.au/our-resilient-coast](http://haveyoursay.sunshinecoast.qld.gov.au/our-resilient-coast).

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