

# Coastal Adaptation Study

## Ratalang-Basham

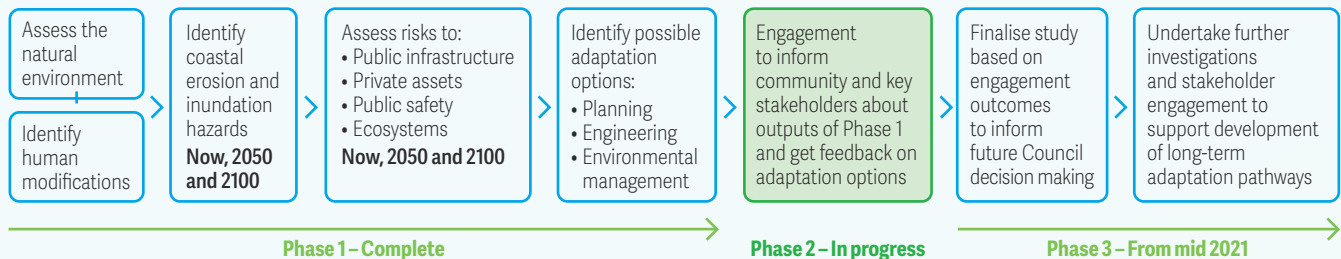
The Alexandrina coastline is of significant cultural, social, environmental and economic value to the local community, Ngarrindjeri nation and visitors to the region.

Climate change is causing sea levels to rise. The Coastal Adaptation Study aims to understand how people, the natural environment and built assets might be impacted by rising sea levels so that Council and other stakeholders, such as State Government and private landowners, can plan for the future.

### What is the Study investigating?

The Study is being undertaken in 3 phases. Phase 1 investigated current and future (2050 and 2100) risks to coastal assets and has recently been completed. Phase 2 consultation is commencing now.

#### Alexandrina Council Coastal Adaptation Study Process



### What area was assessed?

Phase 1 of the project has divided the coast into a series of areas. This fact sheet summarises the key findings of the Ratalang-Basham section of the coast.



Map of area assessed

## About Ratalang-Basham

The Ratalang-Basham coast extends from the Middleton sandstone outcrops to the east of Basham Beach Road, toward Frenchman Rock in the south-west. The Ratalang Basham Beach Conservation Reserve runs along the entire coast, where revegetation of the dunes and wetland areas has been in progress for nearly 40 years.

The coast is fringed by dunes, with a series of lower wetland areas and gullies behind the dunes. Two stormwater drains break the dunes and recent storm events have seen sea water go through small gaps in the dunes; however sea water has not reached the lower areas behind the dunes.

Between 1949 and 2016 sections of the Ratalang-Basham shoreline show evidence of accretion – meaning the sand is building up on the beach and the shoreline is moving sea-ward.

The western part of the Ratalang-Basham coast is considered highly erodible; whereas the eastern end is only moderately erodible. Sea-water flood hazard has been assessed as medium along this section of coast.

## Coastal hazards

### Now to 2050

In the shorter term (next 20-30 years) the impact of sea level rise is expected to increase erosion hazard to the dunes along Ratalang-Basham. As sea levels rise, during high water and storm events waves could break closer to shore and have a significant impact on the base of the dunes, causing the shore line to move inland – this is known as shoreline recession. If the dune system is damaged and sea water flows behind the dunes, there are likely to be irreversible impacts on the local wetland ecosystem.

### Long term – 2050 to 2100

As sea levels rise further, high water and storm events will have an even greater impact on the coastal dunes. The extent of shoreline recession will depend whether or not the dunes can remain intact. Shoreline recession of 36-70m has been projected by 2100. If the dune system is damaged and sea water flows behind the dunes, there are likely to be irreversible impacts on the local ecology. The carpark, toilet and viewing platform at the end of Basham Beach Road may come under threat by 2100. The cycling track is generally situated above any impact to 2100.

These maps show the projected extent of flood events and erosion potential along the Ratalang-Basham coast by 2100.



## Learn more about the draft Coastal Adaptation Study and provide your feedback

Join us at one of the 3 virtual Coastal Adaptation Community Webinars to

- Hear about the draft Coastal Adaptation Study and learn how sea level rise and coastal erosion may impact Alexandrina's coastline now and in the future (2050 and 2100).
- Learn about the possible adaptation options for Alexandrina's coastline.
- Ask questions and share feedback.

Complete the online feedback form [mysay.alexandrina.sa.gov.au/CA](https://mysay.alexandrina.sa.gov.au/CA) and share your thoughts about what you value about our coastline and how Council and the community might work together to adapt to changes along the coast over time.

### Community Webinar dates

**Murray Estuary (Hindmarsh Island)**

3 Nov 2020, 6.30–8.30pm

**Goolwa/Middleton**

12 Nov 2020, 6.30–8.30pm

**Port Elliot/Boomer Beach**

17 Nov 2020, 6.30–8.30pm

To register and view the reports, visit [mysay.alexandrina.sa.gov.au/CA](https://mysay.alexandrina.sa.gov.au/CA); and RSVP by following the links to Eventbrite.

For further information please contact Council's Environmental Strategy Officer on 8555 7000 or [alex@alexandrina.sa.gov.au](mailto:alex@alexandrina.sa.gov.au)