

Coastal Adaptation Study

Murray Estuary Settlements

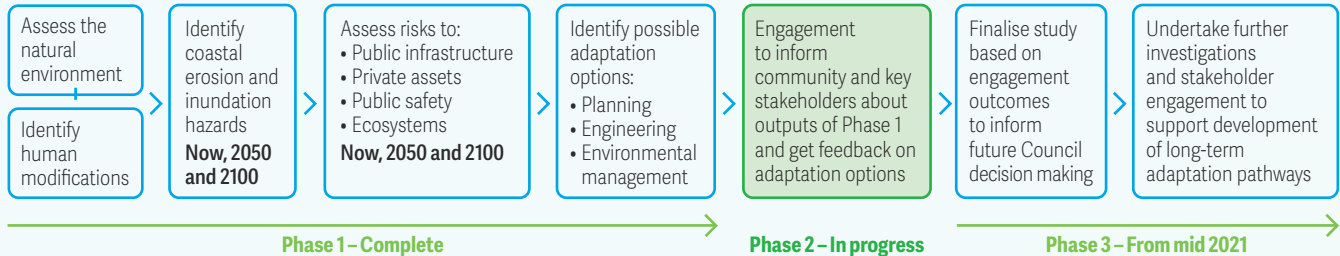
The Alexandrina coastline is of significant cultural, social, environmental and economic value to the local community, Ngarrindjeri nation and visitors to the region.

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 divided the coast into sections, with a separate report prepared for each section. This factsheet summarises the key findings for the Murray Estuary Settlements section of the coast.



Map of area assessed

About the Murray Estuary Settlements (Mundoo and Goolwa Channels)

Goolwa Channel downstream of the Goolwa Barrage extends past the Murray Mouth to the Mundoo Channel along the south-west of Hindmarsh Island. Residential settlements along Mundoo Channel Drive, Coinda Road, Mills Road, Sugars Road and Goolwa Channel Road include numerous properties with private boat ramps and jetties. The area falls within the Coorong and Lakes Alexandrina and Albert Ramsar wetlands and includes large areas of high value habitat that is home to a range of wildlife including birds, fish and frogs. Due to the low-lying landforms, these areas are vulnerable to flooding. While exposure to erosion is less than in those locations exposed to the open ocean, the nature of the land is still highly erodible.

Coastal hazards

Now to 2050

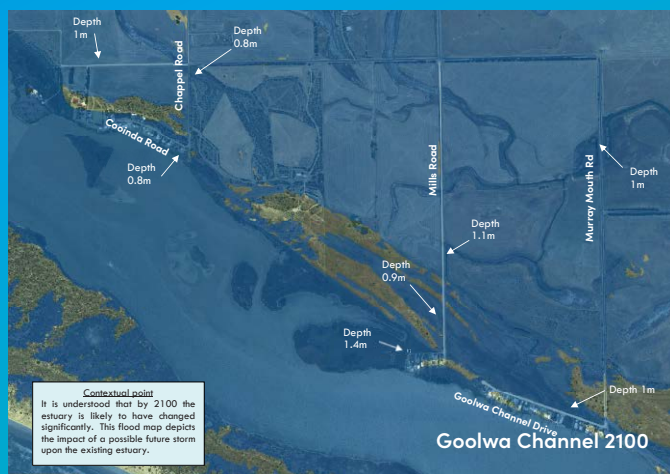
In the shorter term (next 20-30 years) the impact of flooding and erosion on public roads, carparks and boat ramps is generally expected to be minimal along the Mundoo and Goolwa Channels. However, if a 1 in 100-year storm event happened right now, the modelling indicates that a number of houses and roads would likely be impacted by flooding. The number of houses impacted by over-floor flooding during high-water storm events is projected to increase toward 2050. Large scale impacts on the ecology of the area are not expected within this timeframe.

Long term – 2050 to 2100

As sea levels rise, the frequency and level of inundation is expected to increase, with significant

flooding of roads, boat ramps, private dwellings and private jetties projected on a regular basis by 2100. Flood depths over 1m in many areas would make access roads unpassable and increase risks to public safety. Increased flooding would also increase erosion risks, scouring the terrain and undermining road surfaces. Increased sea water flooding from 2050 onward is likely to change the ecology of a large portion of southern Hindmarsh Island. If seas rise as projected by 1m it is not expected that human intervention could mitigate the impacts on local ecology.

The maps below show the predicted coastal inundation extent modelled for 2100 for a 1 in 100-year flood event. The modelling shows that much of the settlement areas would be inundated in this scenario.



Source: Integrated Coasts 2019



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 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; 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