Coastal Adaptation Study

Goolwa Beach

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

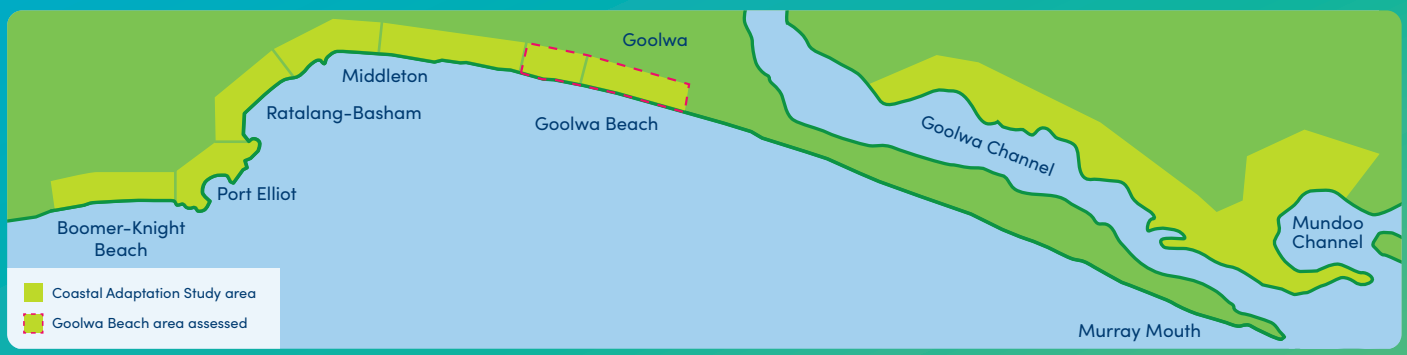
- Assess the natural environment
- Identify human modifications
- Identify coastal erosion and inundation hazards **Now, 2050 and 2100**
- Assess risks to:
  - Public infrastructure
  - Private assets
  - Public safety
  - Ecosystems

  Now, 2050 and 2100
- Identify possible adaptation options:
  - Planning
  - Engineering
  - Environmental management
- Engagement to inform community and key stakeholders about outputs of Phase 1 and get feedback on adaptation options
- Finalise study based on engagement outcomes to inform future Council decision making
- Undertake further investigations and stakeholder engagement to support development of long-term adaptation pathways

Phase 1 – Complete | **Phase 2 – In progress** | **Phase 3 – From mid 2021**

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 Goolwa Beach section of the coast.



Map of area assessed

Government of South Australia
Coast Protection Board

Phase 2 of the Coastal Adaptation Study has been jointly funded by the Coast Protection Board and Alexandrina Council.

About Goolwa Beach

Goolwa Beach - from the Surf Lifesaving Club (SLSC) in the west to end of Tokuremour Reserve in the east - is a sandy, high energy surf beach facing the South Ocean. Sands dunes provide natural protection for lower inland swamp areas. The Goolwa Beach car park, SLSC and various beach access paths are the main infrastructure located in the area.

The Goolwa dunes and Tokuremour Reserve provide essential habitat and protection for a variety of flora and fauna of conservation significance, such as swamp paperbarks and hooded plovers, as well as a variety of native birds, mammals, reptiles and insects. Revegetation, weed control, and restricted access to the dunes have been undertaken in this area to manage threats, reduce erosion and enhance our biodiversity.

Goolwa Beach is very exposed to coastal erosion. Exposure to flooding is low to medium within Tokuremoar Reserve.

Coastal hazards

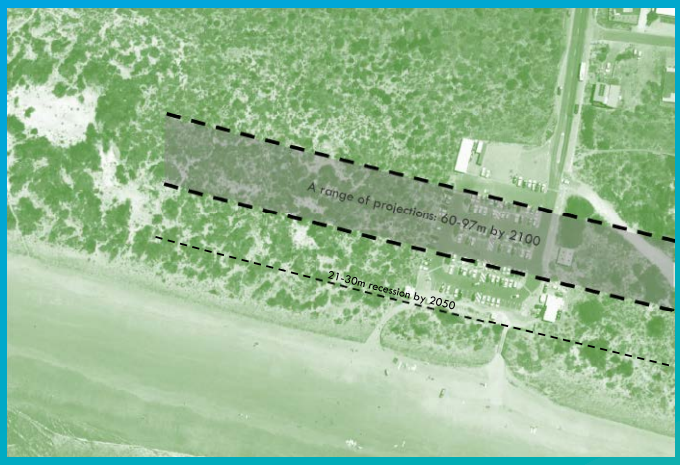
Now to 2050

In the shorter term (next 20-30 years), if sea levels continue to rise as projected, during high water and storm events waves will break closer to the base of the dunes, impacting dune stability and causing the shoreline to move inland – this is known as shoreline recession. By 2050, shoreline recession of 21-30m may occur. This would have a significant impact on dune vegetation and near-by infrastructure.

Long term – 2050 to 2100

As sea levels rise, high water and storm events will have an even greater impact on the dunes along Goolwa Beach. Shoreline recession of between 60-100m has been projected for Goolwa Beach which could have a significant impact on existing infrastructure including the Goolwa Beach carpark. At the western end of the beach, the dune system may erode to such an extent that the ecology of Tokuremour Reserve would be irreversibly changed with the incursion of seawater.

This map shows the projected extent of 2050 and 2100 shoreline recession in the vicinity of the Goolwa Beach car park. If seas rise as projected, the dunes would be impacted and recede accordingly. Over time the current buffer between the dune escarpment and the carpark would be lost, and actions of the sea might impact the carpark, SLSC, and associated infrastructure such as access paths.



Projected shoreline recession Goolwa Beach
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