

Coastal Adaptation Study

Boomer-Knight Beach

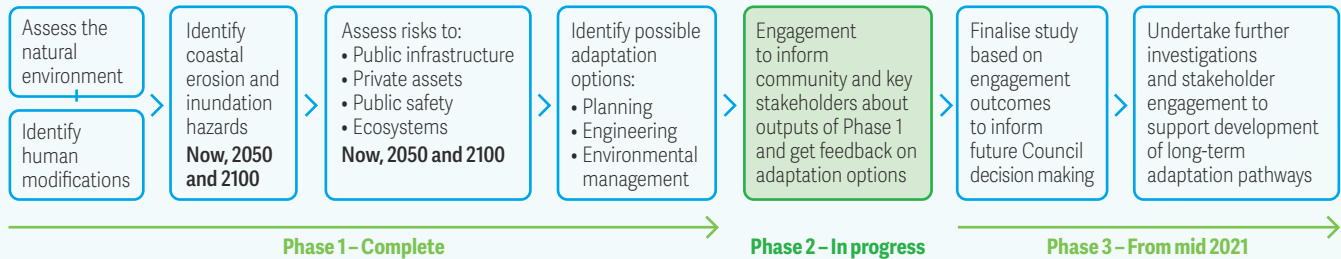
The Alexandrina coastline is of significant cultural, social, environmental and economic value to the local community, Ngarrindjeri nation and visitors to the region.

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



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 Boomer-Knight Beach 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.

Boomer-Knight Beach

The Boomer-Knight Beach section of coast comprises a sandy surf beach facing the Southern Ocean. Boomer Beach east of Watson Gap is backed by sand dunes between 10 and 18m high. Knight Beach is backed by stable limestone cliffs and extends east to a rocky headland which separates it from Green Bay.

The Goolwa-Victor Harbor train line passes across the top of the dunes along Boomer Beach. Along this section of coast there are also numerous coastal access paths with stairs and sections of boardwalk. Toward the eastern end of Knight Beach a number of houses have been built on top of the cliff, in front of the train line.

In the last 10 years, some sections of this coast have been accreting – meaning the sand is building up on the beach and the shoreline is moving sea-ward. This has seen sand building up at the bottom of some access stairs.

This section of coast is moderately exposed to high water events associated with high tides and storm surge, and erosion hazard is considered medium. Sea-water flood hazard has been assessed as low along the Boomer-Knight Beach coast.

Coastal hazards

Now to 2050

In the shorter term (next 20–30 years), if sea levels continue to rise as projected, high water and storm events will likely have an increasing impact on the dunes at the western end of Boomer Beach and erosion is likely to cause the shore line to move inland – this is known as shoreline recession. It is estimated that shoreline recession of 5–7m may occur at Boomer Beach by 2050.

High water and storm events at Knight Beach are likely to have some impact on the cliffs and sandy beach, but it is expected that the beach will continue to reform naturally after these events.

Long term – 2050 to 2100

By 2100, high water and storm events would have an even greater impact on Boomer Beach. It is estimated that wave impact at the base of the dunes could cause shoreline recession of between 18–23m by 2100. This is likely to impact beach access points, making the dunes steeper and more unstable and could eventually undermine the train line in some locations. At Knight Beach, as sea levels rise, high water and storm events are likely to impact the rear of the beach and this may undermine the base of the cliffs, particularly at the eastern end by Merrilli Place. These maps show erosion potential at Boomer Beach and to the cliffs at Knight Beach in proximity of Merrilli Place.



Left: Knight Beach
Right: Boomer Beach 2100 erosion outlook
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