

HELP US SHAPE OUR COASTAL ADAPTATION PLAN

Why is the City of Onkaparinga developing a Coastal Adaptation Plan?

The City of Onkaparinga knows how special the coast is. We have taken action over many years to ensure community and visitors can continue to safely enjoy our prized coastline and beaches.

This project is all about understanding and monitoring how our coastline is changing. Having a long-term plan helps council to keep making good decisions for the future.

It is hoped the Plan will give everyone greater certainty about how we look after our coastline, including when we do and don't need to take bigger steps.

What is coastal adaptation?

Coastal adaptation is a broad term that describes the strategies and actions that help coastal communities, infrastructure and ecosystems adjust to the impacts of climate change and sea level rise.

This means identifying actions to manage our coastline that provide benefits across many sectors (for example safety, tourism, health, environment, and recreation). It also means avoiding things that would make it more difficult to cope with coastal hazards and climate risk in the future.

It is an important part of how we plan for and manage our coasts.

How is the Coastal Adaptation Plan being developed?

The Plan will be based on information and insights from a 2021 City of Onkaparinga Coastal Adaptation Study. This documents the changes we need to plan for over the next 80 years.

Over the past few months, council staff have worked with consultants to undertake a preliminary assessment of the adaptation options for the different sections (known as cells) along the Onkaparinga coast. This process is based on current and future risks identified in the Coastal Adaptation Study.

We're now sharing our preliminary work with the community. We are seeking your views on the most appropriate adaptation options and responses. Following this, we will draft a Coastal Adaptation Plan, and seek feedback on this Plan through a further round of consultation in early 2024.



How does the Plan relate to current coastal protection project?

There are a range of site-specific coastal protection projects currently underway. Council will continue to liaise with the community whenever it is delivering projects along the coast. Current coastal protection projects include:

- Tiller Drive Car Park and Shared Path (managed retreat)
- Esplanade Seaford Contiguous Piling Cliff Stabilisation
- Aldinga Beach Cliff Toe Protection
- Christies Beach Seawall Renewal
- Sand Drift Fencing and Beach Sand Replenishment (nature base solutions).

Council officers are already using the learnings from the Coastal Adaptation Study in these projects to respond to current risks.

In developing the Coastal Adaptation Plan, we will consider what is currently happening on the ground and also create a longer term, consistent approach to responding to changes we are seeing and can expect in the future.

How does the plan relate to the Witton Bluff Base Trail project?

The City of Onkaparinga is continuing to work with the local community, including local Kaurna community members, and all levels of government to progress the Witton Bluff Base Trail project. You can read more about this project <u>here</u>.

The Coastal Adaptation Plan will consider the long-term options for managing the impacts of sea level rise and other coastal changes at Witton Bluff, as it will do for all parts of the coast.

The proposed Base Trail project does not change how we approach the long-term coastal adaptation options for this site, and in fact, the Coastal Adaptation Study has informed the planning and design for the trail.



What are the coastal adaptation options we are considering?

There is no single solution to coastal adaptation. There are a range of options that can be considered based on the specific risks that need to be managed in a particular location. There are five main options used in coastal adaptation planning around Australia:

- Avoidance Avoid the impacts of coastal hazards by ensuring that assets or services are not in areas that could be impacted now or in the future.
- Managed retreat Progressively move assets or services away from areas that could be impacted by coastal hazards now or in the future.
- Accommodate Modify construction of assets or how services are delivered to reduce the impact of coastal hazards.
- Hold the line Install protection or defence infrastructure that reduces the impact of coastal hazards, especially during extreme events such as storm surge.
- Loss acceptance Accept that coastal hazards will cause negative impacts on assets and services and that when this occurs, they will not be replaced.

Within each of the first four categories there is a range of actions that may be taken. These can be categorised into the areas of planning, engineering, environmental management and community awareness and education.

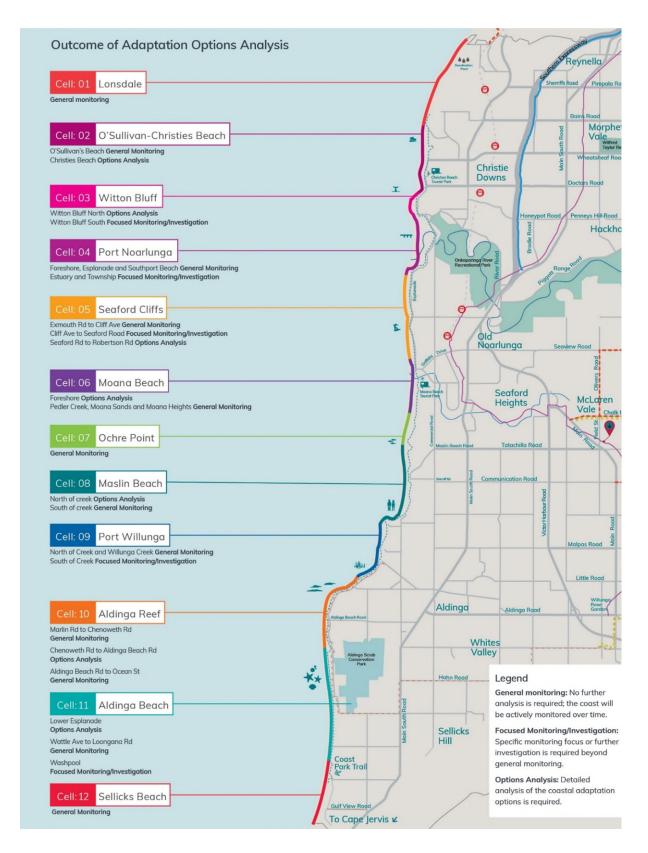
Which locations are most at risk?

An initial options analysis process has been completed by council staff and the consultants. This process included a review of all sections along Onkaparinga's coastline (broken into 12 coastal cells), where each cell was placed into one of three categories:

- General monitoring where no further analysis is required, but the coast will be actively monitored.
- Focused monitoring/investigation where no further analysis is required, but there is a need for a specific monitoring focus or additional investigation. This is because specific risks may exist in the context of sea level rise projections, or further investigation is required about a particular coastal issue.
- Options analysis where detailed coastal adaptation options analysis is required now because of the higher levels of current or future risk.

The results from this categorisation are shown on the following map, with further information available in our Progress Report.







What are our options in the higher risk locations?

The initial adaptation options analysis process identified eight sites with a higher level of current or future risk. For these sites, the project team explored all the possible adaptation options and identified a preferred option. These are summarised here:

Cell	Name	Location	Possible adaptation options	Preferred adaptation option
2.2	Christies Beach	Main beach	Hold the line. Retreat.	Hold the line – upgrade rock revetment.
3.1	Witton Bluff	North – old rock revetment section.	Hold the line.	Hold the line - upgrade rock revetment.
4.4	Port Noarlunga Township	Saltfleet Street	Hold the line. Accommodate.	Hold the line - install protection structure.
5.3a	Seaford Cliffs	In vicinity of Gulf Street	Hold the line. Managed retreat.	Hold the line - retaining and protection items at the top and the bottom of the cliffs.
5.3b	Seaford Cliffs	Tiller Drive	Managed retreat.	Retreat – carpark and shared path (currently in progress).
5.3b	Seaford Cliffs	Walking trail – Tiller Drive to Robertson Road	Hold the line. Managed retreat.	Retreat through masterplan that relocates walking trail away from cliff top.
6.1	Moana	Moana Surf Life Saving Club	Hold the line. Managed retreat. Accommodate.	Accommodate with modifications to stairs, ramp and base of SLSC. Hold the line - environmental solutions.
6.1	Moana	Moana foreshore	Hold the line. Managed retreat. Accommodate.	Master plan that incorporates some or all of these options. Hold the line - environmental based solutions.
8.1	Maslin Beach	Maslin Creek carpark	Hold the line. Managed retreat.	Managed retreat – when carpark requires upgrade, consider reducing the carpark size to allow the coast to progressively retreat.



Cell	Name	Location	Possible adaptation options	Preferred adaptation option
10.2	Aldinga Reef	Snapper Point	Hold the line. Managed retreat road infrastructure through diversion or reducing traffic.	Hold the line – offshore rock revetment (bund) proposed offset from the cliff.
11.1	Aldinga Beach	Lower Esplanade	Hold the line. Managed retreat. Remove road infrastructure.	Hold the line – environmental based solutions.

To learn more about these options, you can read our <u>Progress Report</u> or come along to a drop-in session or our webinar.