

Progress Report | SA Climate Ready Coasts Foundations



March 2024

About SA Climate Ready Coasts

Climate change is causing rising seas, stronger storms and increasing the risks from coastal hazards. This is putting people, homes, infrastructure, livelihoods and natural resources at greater risk.

SA Climate Ready Coasts has been initiated to accelerate coastal hazard adaptation planning and help drive a more strategic and integrated approach to coastal management in South Australia. The Program is being delivered by the LGA in partnership with the Coast Protection Board, Department for Environment and Water, Adelaide Coastal Councils Network and SA Coastal Councils Alliance.

About the Foundations Project

The **Foundations Project** is the first of series of projects to be delivered as part of the overall Climate Ready Coasts program. It aims to inform the overall program scope and direction by:

1. Developing an understanding of best practice in coastal hazard adaptation through a review of interstate experiences
2. Delivering an engagement program with councils and State Government to understand their experiences with coastal hazard adaptation, and expectations of the program
3. Developing Coastal Hazard Adaptation Planning Standards that outline an agreed approach
4. Identifying the implementation and governance arrangements to support the use of the proposed standards.

Purpose of this Report

This report provides a point-in-time snapshot of work completed on the Foundations Project, including a summary of the emerging ideas being considered by the program team, and the next steps. It is supported by two more detailed consultants reports.

About South Australia's coasts



>90% of SA's population lives within 50km of the coast



6 million tourists visit SA's coastal areas each year

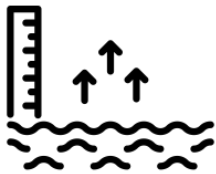


Coastal ecosystems include estuaries, wetlands, islands, gulfs, reefs, beaches, mangroves, mudflats and rocky shores



Coastal hazards are:
Inundation
Erosion
Sand drift
Acid-sulphate soils

Climate change impacts on our coast



Sea levels are rising at a rate of 2-5mm per year



Since 1992, new development near the coasts needs to allow for 1m of sea level rise by 2100



Climate change will increase the frequency and intensity of storm events, and exacerbate existing coastal hazards



Adapting to coastal hazards may include:
Avoidance
Retreat
Accommodate
Natural protection
Hard protection

Roles in coastal management



State Government

roles include operating the SA Coast Protection Board, acquiring and managing coastal data, land use planning, managing its assets and protecting the coastal environment from damage, mis-use and pollution



Local Government

roles include understanding risk to their community and assets, maintaining assets and managing the coastal environment under council care and control, and sharing relevant information with their communities



Land and asset owners

have roles to care for their coastal land and assets, understand their coastal risk, and take action



Communities

use, enjoy and care for the coast

About our Coastal Councils

Coastal councils vary considerably in terms of the amount of coastline under their care and control, the nature of coastal landforms and processes, and exposure to coastal hazards. In addition, there is variation in terms of the coastal tenure, the nature of settlements along the coast, demand for coastal infrastructure and amenities, and the levels of resourcing available to the council.



The nature of the coast varies considerable around the state.

As examples of some of these differences:

- The City of Onkaparinga has a coastline of around 32km, while serving a resident population in excess of 180,000 and with more than 700 FTE staff and annual rates revenue in the order of \$140M
- Yorke Peninsula Council has a coastline of 485km with 32 coastal settlements, serving a resident population of around 12,000 people with 115 FTE staff and annual rates revenue of \$24.4M
- The District Council of Elliston has a coastline of 209 km, with 18 FTE staff and an annual rates revenue of \$2.6M¹.

There are further differences in terms of the involvement of the State Government and private landowners in coastal management.

For example, the State Government manages the metropolitan Adelaide beaches from Kingston Park to Largs Bay. In other areas, land tenure may limit the extent of council involvement, for example national parks, ports, utilities or other major industries.

These factors mean that councils have and will approach coastal hazard adaptation in different ways to respond to these factors.

¹ These statistics are based upon estimated coastline length data provided by DEW, and 2021/22 rates revenue data provided by the SA Local Government Grants Commission.

Coastal hazard adaptation planning in SA

What is coastal hazard adaptation planning?

Coastal hazard adaptation planning is the strategic and systematic approach of anticipating and responding to the coastal hazard risks, which in many cases will be exacerbated by climate change.

This process generally involves several steps, including engaging stakeholders and local communities, evaluating the coastal context and hazards, assessing current and future coastal risks, exploring options that respond to these risks, and action planning.

Why the focus on coastal hazard adaptation planning?

We need to accelerate our efforts with coastal hazard adaptation planning for two reasons.

The first is that climate change is causing rising sea levels and more frequent and intense storms which will exacerbate coastal hazards such as sea flooding and erosion, placing coastal assets, infrastructure, lives and livelihoods at risk. Planning for this increasing risk is important to ensure we can manage and mitigate future impacts in a proactive manner.

The second reason is that current approaches to coastal hazard adaptation in South Australia are generally fragmented, uncoordinated and based on different datasets and methodologies. This makes it hard to understand the level of current and future risk across the state, prioritise resources and take a more integrated approach across the State.

Where is South Australia at with coastal hazard adaptation planning?

South Australian councils are at different places in the coastal hazard adaptation planning cycle. The LGA developed Coastal Adaptation Planning Guidelines for councils in 2012, which were updated in 2019.

Some councils have been working on coastal hazard adaptation for years; some have completed plans and some have moved on to implementation. Others have undertaken coastal hazard studies, focused on site-specific strategies and works, or are undertaking monitoring to better understand coastal change. In some places, coastal adaptation planning has not been a high priority to date.

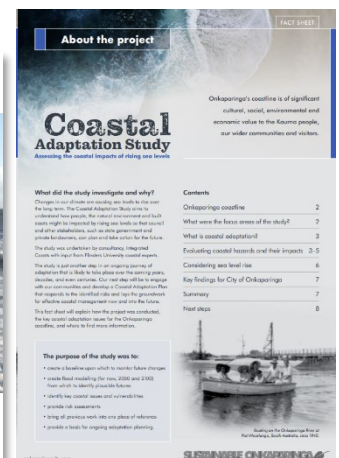
Robe Coastline Monitoring Roadmap CoastSnap



Southend Coastal Adaptation Strategy



The City of Marion is the first South Australian council to join the [CoastSnap](#) community beach monitoring initiative.



Examples of coastal hazard adaptation planning and other actions delivered by SA councils

To help shape the Program's priorities and direct allocation of resources, the Foundations Project will include a maturity assessment of coastal hazard adaptation planning undertaken to date by all South Australian coastal councils. This will be completed by mid-2024.

Learning from experiences interstate

In late 2023, SA Climate Ready Coasts commissioned a research and benchmarking review to understand what can be learnt from experiences in other jurisdictions, with a particular focus on:

- Coastal hazard adaptation frameworks and governance
- Engagement
- Scoping and establishing coastal context
- Hazard assessment and mapping
- Risk assessment
- Adaptation options assessment
- Implementation.

The review considered approaches in Victoria, New South Wales, Queensland and Western Australia relative to current practice in South Australia. Highlights from each state's approach are summarised below.

Victoria's Resilient Coast – Adapting to 2100+

- Standard development was an intentionally slow co-design approach
- Adaptation plan owners extend beyond councils, hence establishing each project's governance arrangements is a key up-front consideration
- State Government coastal grants program typically worth <\$1M per annum
- State Government hosts a Regional Coastal Adaptation and Planning team that provides support and advice

New South Wales Coastal Management Manual

- Coastal Management Programs (CMPs) set a long term strategy for management of the coast
- CMPs are developed by councils but State Government provides funding and technical support
- CMPs are certified by the Minister following technical review by State Government staff
- Improvements have been made regarding the consideration of First Nations engagement

Queensland's QCoast Program

- Funded by State Government but administered by LGAQ – over \$20 million invested since 2015
- Strong commitment to a 'shared responsibility' approach between state and local government
- LGAQ delivers regular engagements, trainings and forums
- Expert Panel comprised of academics and consultants provide quality control at review points, helping to drive consistency

Western Australia's CHRMAP Guidelines

- Coastal Hazard Risk Management Adaptation Plans (CHARMAP) Guidelines have been in place for 10 years
- Guidelines viewed as very prescriptive, and this has supported consistency
- 90% of councils have commenced CHARMAP
- Informal review process by State Government staff
- State Government grants program (\$450K) is regularly oversubscribed
- Coastal officer within WALGA is valued for coordination and capacity building

The research and benchmarking review made a number of overall observations, including:

- Coastal hazard adaptation plans and supporting standards or guidelines typically build on the directions of the State’s broader coastal planning policy and/or Acts
- Strong working relationships across local and state government, and establishing a clear governance model within the scoping phase, are key to success
- A quality control mechanism is important for both consistency and confidence in the process
- Standards play a key role in providing definitions, explaining processes and providing access to support materials
- A clear plan for stakeholder engagement is important, as is being clear on the scope of influence
- Approaches to First Nations engagement varies from state to state
- Coordination of coastal stakeholders between state and local government is important to sustain relationships, build momentum, share information and develop skills
- Prescription is important in some areas, such as planning horizons and how coastal risks are quantified
- It is typical for adaptation options to be considered against an adaptation hierarchy, such as
 - Avoid or non-intervention
 - Retreat
 - Accommodate
 - Protect or defend
- There is increasing focus on nature-based solutions that focus on either restoring natural habitats (soft approaches) or in combination with hard structures (hybrid approaches)
- A range of economic assessment tools are used in evaluating adaptation options
- Change management thinking is important in implementation to help prepare organisations to deliver adaptation plans effectively

The full report from the **Coastal Adaptation Planning Benchmarking Review** is available on the SA Climate Ready Coasts website.



Stages within the Victoria’s Resilient Coast Framework

Stakeholder feedback

Between October and December 2023, an extensive stakeholder engagement process was delivered by the Climate Ready Coasts program team and consultants URPS and Hatch.

The engagement involved a combination of workshops, feedback forms, small group meetings and 1:1 interviews.

The goals of the engagement were to:

- Build understanding about coastal hazard adaptation and the goals of SA Climate Ready Coasts
- Understand experiences in coastal adaptation
- Identify needs, requirements and expectations of the proposed Coastal Adaptation Planning Standards and linkages with related projects and work.

Across all engagement activities, the key findings are:

The Coastal Hazard Adaptation Planning Standards need to:

1. Support the delivery of effective engagement on coastal adaptation
2. Clarify governance arrangements around coastal adaptation planning
3. Clarify various technical matters for planning and implementing coastal adaptation.

The Implementation of the Standards needs to:

1. Deliver quality control
2. Improve governance arrangements to support coastal adaptation planning and implementation
3. Provide more and long-term funding
4. Improve the provision of and understanding of coastal data.
5. Educate councils on coastal adaptation.

In working through these findings, it is important to note that some aspects can be delivered by the program, while others will require action from the program partners.

The detailed results of the consultation process are documented in the **Engagement Summary Report** available on the Climate Ready Coasts website.

Who participated?

119 individuals representing:

- 30 coastal councils
- Coast Protection Board
- Department for Environment and Water
- Department for Infrastructure and Transport
- Environment Protection Authority
- Landscape Boards
- Planning and Land Use Services
- SA Water
- SA Research and Development Institute

Learning from SA councils

Councils who have engaged in coastal hazard adaptation planning told us that:

- Coastal hazard adaptation planning is technically complex and politically sensitive - and thus takes time
- The roles and responsibilities are unclear, and working through the nuance of land tenure arrangements can be an obstacle
- Sustained community and elected member engagement is important, but is time and resource intensive, and can be challenging in the context of conflicting or changing community values
- Localised data is key to decision making and builds community confidence in the data
- A strategic and long term approach is important in shifting away from expensive reactive decisions

Summary

The Climate Ready Coasts program team has been critically reviewing the outcomes of the benchmarking and stakeholder engagement, and considering what this means for both program delivery, and the broader coastal sector in South Australia.

This has been distilled into seven key messages which reflect a summary of current thinking, and will shape how the program moves forward, and engages with the key program partners.

1. Clarify and improve coastal governance arrangements in SA

Stakeholders raised concerns and uncertainties around coastal governance in South Australia, and what these mean for coastal hazard adaptation planning, such as:

- Under current legislation, where do roles/responsibilities ultimately fall for coastal management?
- What mechanisms will be used to provide an appropriate authorising environment for the proposed Coastal Hazard Adaptation Planning Standards and Coastal Hazard Adaptation Plans?
- Who owns Coastal Hazard Adaptation Plans and the associated planning process, given the complex coastal land tenure arrangements?
- Where does responsibility lie for implementing (and/or potentially enforcing) agreed adaptation options?

In addition, it was clear from the benchmarking review that establishing a clear governance model within the scoping phase is foundational to success. The review also found that, in most states, the coastal hazard adaptation planning process is led by councils with technical advice and funding support from State Government.

These considerations are important, because if coastal governance arrangements are not well understood, or if there is not a robust and well understood authorising environment for Coastal Hazard Adaptation Plans, it will be harder for Climate Ready Coasts to achieve its goals.

The scope of the Foundations Project is to develop Coastal Hazard Adaptation Planning Standards that reflect current governance arrangements, but it is not within scope to improve or change broader governance structures. Any reforms will need to be led by State Government, ideally in partnership with local government.

2. Develop Coastal Hazard Adaptation Planning Standards that can be used and improved

There is broad support for the proposed Coastal Hazard Adaptation Planning Standards as a means of more clearly articulating how we approach this work in South Australia, and formally adopting an approach that is shared between State and Local Government.

While stakeholders differ in their specific expectations of the standards, there is a desire for a number of methodological, engagement and technical approaches to be articulated through this document. Experience interstate points towards the value of standards and guidelines in moving towards more consistent understanding, terminology and approaches.

Given the momentum around progressing coastal hazard adaptation planning in South Australia, it will be important that the standards are robust, but also developed promptly to meet

the needs of councils. In this way, the coastal sector can effectively 'learn through doing' within a continuous improvement framework, and the standards updated over time.

3. Establish a quality control mechanism

Experience interstate has consistently identified that review and assurance mechanisms are important to ensure coastal hazard adaptation plans are being developed in accordance with the standards, and by doing so, greater consistency is achieved, and confidence built in the work. There are many different ways this can be achieved, from informal reviews by State Government staff with requisite skills, to more formalised 'stage gate' reviews by qualified reviewers and/or panels.

Stakeholders identified a degree of support for establishing a quality control mechanism on the provisos that the process is proportionate to the level of risk, does not unreasonably add time and costs, and provides practical advice that ultimately improves the associated work. The benchmarking review found that biggest trade off from implementing a quality control process is the additional time that it takes.

It is not within the scope of the Climate Ready Coasts program to establish and operate such a mechanism; however, any efforts to do so will likely have a significant positive impact on the realisation of the Program's goals.

4. Develop an interim implementation model that is flexible to account for differing coastal, council and community contexts

Coastal hazards and associated adaptation issues are always local, and the context differs greatly in terms of coastal risks, community values and expectations, council resourcing and the level of interest in the coastal hazard adaptation planning work. Given this, the implementation model needs to support stakeholders to plan in a way that is contextually relevant, while also being consistent in areas where it is important.

The benchmarking review supports this finding, and highlighted the importance of change management within the implementation phase of any coastal hazard adaptation plan.

5. Consider the most appropriate scale and scope for coastal hazard adaptation

Stakeholders identified that coastal hazard adaptation should not be considered in isolation from other planning work. For example, some stakeholders spoke of the opportunity to plan for the coast on a systems basis that connects coastal systems with marine, riverine and other ecosystem planning, using a systems resilience approach rather than focusing on adaptation to a single hazard. Others spoke to linkages with the statutory planning system through regional plans, and/or emergency management or disaster risk reduction efforts.

Others highlighted how a council boundary may be the right geographical scale for a coastal hazard adaptation plan in some places, whereas in others, it may be more appropriate to plan at a smaller scale, or indeed a regional scale involving multiple councils. Experience interstate highlighted the importance of clear scoping (including consideration of geographical scale) as the first phase of any coastal hazard adaptation planning work.

Resolving the right geographical scale for a coastal hazard adaptation plan relates to the governance issues previously raised and the associated complexities of land tenure, and may also be influenced by coastal processes or natural system boundaries. Regardless of the scale, it is important that coastal hazard adaptation plans can contribute to a regional, and statewide picture of the coastal hazard landscape, and how risks from these are being managed.

6. Accelerate coastal hazard adaptation planning and action through improved access to funding

Funding for both coastal hazard adaptation planning and the implementation of resultant projects, is a key and commonly identified barrier/enabler of action in both the stakeholder engagement and interstate benchmarking.

Across both processes, the linking of grant funding to coastal hazard adaptation plans that have been prepared in accordance with agreed standards was seen as important to drive interest in the planning work, and to ensure that grant funding is being directed to the projects which address higher risk.

While Climate Ready Coasts has some limited funding available to accelerate coastal hazard adaptation planning over the next two years, sustainable funding models are required. Stakeholders identified that an improved understanding of current and future coastal risk, within a consistent state-wide framework, will improve our state's prospects in attracting future federal funding. A broader analysis of coastal funding matters is provided in a discussion paper prepared by SACCA in 2021².

7. Build skills, momentum and a culture of sharing through investment in coordination

A number of interstate jurisdictions have a dedicated officer positioned 'between state and local government', which has been highly effective in:

- acting as a central point of coordination for coastal adaptation,
- delivering training,
- managing review/quality control processes,
- facilitating peer-to-peer learning, and
- supporting a positive culture of shared responsibility.

This role has been compared with the Central Coordinator of the Regional Climate Partnerships in SA hosted by the LGA in partnership with Green Adelaide and State Government.

There is no such role currently in place in SA beyond the current project management of Climate Ready Coasts. Investment in this coordination and capacity building would support the goals of the program and help ensure sustained action beyond the life of the program. The specific duties, funding and reporting arrangements of the role (i.e., where it sits) will largely depend on the broader governance model adopted for coastal hazard adaptation planning in SA.

² https://www.sacoastalcouncils.com.au/files/ugd/ab585b_2fd4c447faac42b88ece015587042e4c.pdf

Next steps

The next steps for the program is to develop the draft **Coastal Hazard Adaptation Planning Standards for South Australia**. These are intended to provide principles and methodologies for coastal hazard adaptation that are agreed upon and adopted by local and state government. They will build on and ultimately supersede the LGA's Coastal Adaptation Guidelines, which were last updated in 2019, to create a consistent statewide approach that outlines the baseline (minimum) standards for coastal hazard adaptation planning and provides supporting tools and resources.

Alongside the standards, the program will also propose an interim **implementation model** that describes how the standards are intended to operate, addressing matters including governance and legal effect, funding, technical support, quality control, peer-to-peer support and training. It is expected that the program partners may need to lead action outside of the Climate Ready Coasts program in order for this model to be successfully implemented.

The program will deliver a **further round of consultation** on the draft standards and interim implementation model before they are finalised and approval is sought from the LGA Board and SA Coast Protection Board.

Following this, the program will deliver a once-off **grant funding opportunity** to support councils to progress coastal adaptation planning and associated actions in accordance with the standards.

Further information

The research and analysis that supports this Progress Report is available in the following reports:

- Coastal Adaptation Planning Benchmarking Review, prepared by Hatch
- Engagement Summary Report, prepared by URPS.

These reports, along with other information about Climate Ready Coasts, are available on the program's website: lga.sa.gov.au/climate-ready-coasts

The SA Climate Ready Coasts program is funded by:



Australian Government
National Emergency Management Agency



Government of South Australia
Coast Protection Board



LG Research & Development Scheme
Local Government Association
of South Australia