



# Snapshot

## A simple start on the coastal adaptation journey for **District Council of Robe, SA**

### Summary

Robe is a small tourist town in South Australia that has been undertaking coastal adaptation on an 'as needs' basis. Robe Council recognised the need to move to a more planned and integrated approach to coastal adaptation. A key question for the council however was where to begin? They found the educational tools and first pass risk assessment tools in CoastAdapt proved to be an excellent place to start.

### Keywords

Risk assessment, scoping, education, capacity building, test case

Robe is a small seaside town situated in south-eastern Australia, surrounded by limestone cliffs on one side, and sandy beaches on the other. Tourism is a key economic driver for Robe: it has a permanent population of 1,400, but this number swells to between 15,000 and 18,000 for three months of the year in holiday seasons.

Some of the challenges facing the District include beach erosion, ensuring effective sand nourishment and replenishment, and limited local expertise. Communication with property owners is difficult because many houses are owned by absentee landlords whose primary residence is elsewhere.

The District Council of Robe had been undertaking coastal adaptation on an 'as needs' basis but is seeking to create a more formalised coastal adaptation plan that prioritises actions and allocates resources appropriately. Mayor Peter Riseley and CEO Roger Sweetman were keen to undertake a preliminary scoping project utilising the tools from CoastAdapt.

The project — facilitated by Mark Western, the Director of Integrated Coasts — adopted a two-tiered approach. The first priority was to build a greater understanding of climate change projections and climate change modelling for the Chief Executive Officer Roger Sweetman. CoastAdapt provided the key resources to build that understanding, and data sets relevant to the District of Robe, including information on likely flood risk, sea-level rise and susceptibility of the coast to erosion.



Figure 1: Five vulnerable locations in the District of Robe were looked at in the first pass risk assessment. Source: © Wikimedia.

The second task was to conduct an informal scoping study of Robe's coastline using the *First Pass Risk Assessment* spreadsheet tool located within CoastAdapt. Five areas of potential vulnerability were visited and reviewed in first pass mode (Figure 1). These are:

- 1 A local icon, the Robe Obelisk, is in danger of falling into the sea as its base has been eroded away
- 2 Main Beach is subject to ongoing erosion and requires sand replenishment
- 3 Erosion is undercutting the cliffs at the local caravan park, the Sea Vu
- 4 A recent storm event has taken an erosion 'bite' out of the dunes at Hoopers Beach
- 5 A drainage outlet may be a risk. This 'L Drain' is important for the town and surrounding farmland, however a commonly held belief is that a storm surge event that coincided with a large rain event could flood significant sections of the township through this drain. Rising sea-levels can only exacerbate the risk of flooding.

After assessing these five locations, only one was deemed likely to pose a risk to tourism over the next 30 to 40 years. A conclusion of the assessment was that if a significant flood event were to occur through L Drain then it could damage Robe's reputation as a safe tourist destination. In regard to the other locations, plans are already in place to reconstruct another obelisk if the current one should fall into the sea, and the other items were not deemed to pose a significant risk to tourism in the time frame of the assessment.

This test case was a first pass preliminary review, with an assessment time frame of 30 to 40 years. The next steps are to conduct a more comprehensive second pass risk assessment; to review potential coastal impacts upon all sectors, not just tourism; and to include longer assessment time frames.

Mr Sweetman reported that he appreciated that all of the material he read in CoastAdapt was written in plain English. He also reflected that being involved in the project made him more aware of climate change issues. Overall, the Council reported that it had developed a clearer idea of where to head next with coastal adaptation planning.



Figure 2: Robe Obelisk. Photo: © Villa Malmo.

This Snapshot was prepared by Mark Western of Integrated Coasts as part of a series of test cases conducted to assess CoastAdapt’s performance and utility in real life adaptation situations. A special acknowledgement goes to Mayor Peter Riseley, CEO Roger Sweetman and Lauren Oxlade who also contributed valuable feedback to the test case.

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Figure 3: Mayor Peter Riseley (left) and CEO Roger Sweetman (right) (Robe District Council). Photo: © Stock Journal.



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