

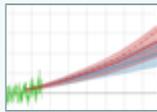
CoastAdapt datasets

26 March 2018

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Shoreline Explorer:
Present day information



Sea-level rise and You:
Information about the future



[Access Shoreline Explorer](#)

 [Dataset Guidance 1](#)

Shoreline Explorer: present-day information

The [Shoreline Explorer](#) contains data for exploring the characteristics of the Australian coast at the present-day. These characteristics are a guide to the sensitivity and vulnerability of the coast to inundation and erosion now and in the future.

There are three datasets in [Shoreline Explorer](#). There are brief introductions below.

For more information, go to [Dataset Guidance 1](#).

Sediment Compartments and their Characteristics hide

Scientists have divided the Australian coast into 359 discrete units, or sediment compartments, within which there are broadly homogeneous features that may include geology, landform types, near-shore currents and sediment availability and movement. A compartment might be, for example, a bay lying between two headlands. CoastAdapt provides descriptions and information for each sediment compartment around Australia. The compartment approach provides a spatial framework that integrates driving forces with landform type and condition to support and improve coastal risk assessments at regional scales under conditions of climate change.

Sediment Compartment information was developed in a research project funded by the Australian Government through the Department of the Environment and managed by NCCARF. The project was led by NCCARF and Bruce Thom and the participants were Colin Woodroffe, Andrew Short, Chris Sharples, Nick Harvey, Matt Eliot and Ian Eliot.

Smartline hide

Smartline was developed to provide a single, consistent map of coastal landforms for the entire Australian coast. The Smartline is a polyline representation of the geomorphic features located within 500m of the high water mark to landwards and seawards. The Smartline map divides the coastline into distinct segments; within each, multiple GIS attributes describe the dominant coastal landforms.

Smartline is provided in CoastAdapt at two resolutions:

- At the simplest level, a single map layer can be used to display the coast classified into just five landform categories based on very broad differences in the composition and erodibility of coastal landforms.
- At the second level of detail, separate layers can be displayed showing the location and extent of more differentiated but still quite broadly-defined coastal landform types or groups, such as hard rocky shores (of several types, e.g., cliffed and sloping), sandy beaches (e.g., backed by bedrock or by soft sediment terrain), soft-rock shores of several types, and others.



For more information, see

<http://www.ozcoasts.gov.au/coastal/introduction.jsp>

NCCARF thanks Geoscience Australia for permission to reproduce Smartline.

Water Observation from Space (WOfS)

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Water Observations from Space (WOfS) displays historical surface water observations derived from Landsat 5 and Landsat 7 satellite imagery for all of Australia from 1987 to 2014. WOfS allows better understanding of where water is usually present, where it is seldom observed and where inundation of the surface has been occasionally observed by satellite. For each grid cell within the map, WOfS displays:

- the percentage of clear observations on which water was detected from 1987 to 2014 (i.e. the number of occasions water was detected divided by the number of clear satellite observations);
- the confidence (or probability) that a water observation in this location is correct. This is a percentage, based on a number of factors including the slope of the land and the existence of other corroborative evidence.

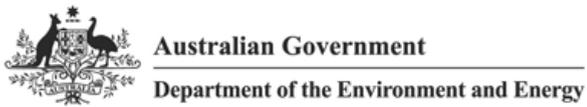


For more information, see <http://www.ga.gov.au/scientific-topics/hazards/flood/wofs/faqs>

*NCCARF thanks Geoscience Australia for permission to reproduce
Water Observations from Space.*

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CoastAdapt was developed by NCCARF with funding from the Australian Government through the Department of the Environment and Energy

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