

climate change science impact

Making coastal hazards information accessible



Earth Systems and Climate Change Hub researchers investigating sea level and coastal hazards are world leaders in the field and have long maintained a website to deliver sea-level rise information and data. While the website was popular with researchers and research users, it was very old and in need of a refresh to both update scientific content and make it more accessible to a wider audience.

The Hub has re-developed the website into a new portal that brings together information on an expanded range of coastal hazards – sea-level change, waves, coastal extremes and ocean energy – in formats and at technical levels suitable for a range of website visitors.

What's new?

The old sea level research website contained only limited information and data, much of it too technical for non-research visitors. High on scientific impact, the old website did not deliver community impact by providing a means for a wider audience to access this research.

The new Sea Level, Waves and Coastal Extremes portal

(https://research.csiro.au/slrwavescoast/) presents information about physical coastal processes and sea-level rise in ways which are accessible to non-scientific audiences (such as high school students) while also providing access to the supporting research papers and data relevant to university students through to senior researchers.



The Sea Level, Waves & Coastal Extremes team is part of CSIRO's Climate Science Centre.

We love the coast. Coastal regions, particularly some low-lying river deltas, have very high population densities. In excess of 150 million people live within 1 metres of high tide level, and 250 million within 5 metres of high tide. Billions of dollars are invested in coastal infrastructure immediately adjacent to the coast, it is therefore of paramount importance to understand how the coast is changing.

This site contains information about our key areas of research - see level change, waves, coastal extrames, and ocean mergy. Data about see levels including occasionally updated plots is swallable in the measurements and data section. We also include our estimates of global and regional see level, links to other webpages and data sect, is well as a list of our publications. Wwe data can be found through warm data accoust and energy data in data portals. The Australian Narw Interpr Allap project to available online. We also have a <u>chican science arobies</u> to digitize long term tide gauge data, which will assist in studying see level tends along the Australia coast.

The home page of the Sea Level, Waves and Coastal Extremes portal at https://research.csiro.au/slrwavescoast

How is it used?

The Sea Level, Waves and Coastal Extremes portal contains information about the research team's key areas of investigation, including sea-level change, waves and coastal extremes.

Data about sea levels including occasionally updated plots is available in the measurements and data section. There are also estimates of global and regional sea level, links to other web pages and data sets, and a list of the team's publications. There's also a tool that replicates the functionality of Canute 2.0, (a University of Tasmania sea-level tool no longer being developed) that provides extreme sea level information and sea-level allowances for use in planning now and into the future.

Links to wave data can be found on the waves data access page and energy data is available via the energy data portals page.

The website also contains information about a citizen science project to digitise long-term tide gauge data, which will assist in studying sea level trends along the Australia coast.

New information developed by Hub researchers (primarily through Project 2.10: Coastal hazards in a variable and changing climate) will be made available on the portal, ensuring this online resource remains credible and current.

Who benefits?

Researchers have access to research papers and a range of data, both directly and through links to relevant sites in the CSIRO Data Access Portal, and national and international data facilities such as CoastAdapt.

Senior secondary and university students can find accessible sea

level and coastal hazard information, including papers and literature reviews.

Coastal engineers and managers can access the latest figures on global averaged sea-level rise and schematic figures for their reports that explain contributions to coastal sea levels.



This activity was led by ESCC Hub Project 2.10.

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