

What are Council's new sea level rise projections?

Following preparation of the South Coast Regional Sea Level Rise Planning & Policy Framework (The Report) prepared for Shoalhaven City Council (SCC) and Eurobodalla Shire Council (ESC), SCC has adopted new sea level rise projections, as explained below.

What do all the figures mean? They're all about carbon emissions and sea-level rise.

What is an RCP?

Representative Concentration Pathways. These are projected concentrations of carbon emissions based on various assumptions e.g. global population figures and trends, type and range of technologies being utilised (or not) to reduce emissions. These RCPs are derived from the latest Intergovernmental Panel on Climate Change (IPCC), Fifth Assessment Report (AR5), November 2014. The figures are sea level rise projections (from 2014) shown in metres e.g. 0.10 = 10 cm.

Why are there three columns in each RCP?

To acknowledge uncertainty, each RCP is shown as a series of 3 possibilities.

High: around 15% chance of being exceeded.

Medium: around 50% chance of being exceeded.

Low: around 85% chance of being exceeded.

Year	RCP2.6			RCP4.5			RCP6.0			RCP8.5		
	Low	Middle	High	Low	Middle	High	Low	Middle	High	Low	Middle	High
2015	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2020	0.02	0.02	0.03	0.02	0.02	0.03	0.02	0.02	0.03	0.02	0.02	0.03
2030	0.05	0.07	0.10	0.05	0.07	0.10	0.05	0.06	0.10	0.06	0.07	0.10
2040	0.10	0.12	0.16	0.09	0.12	0.16	0.08	0.12	0.15	0.11	0.14	0.17
2050	0.13	0.17	0.23	0.14	0.18	0.24	0.13	0.17	0.23	0.16	0.20	0.26
2060	0.15	0.21	0.30	0.18	0.24	0.32	0.16	0.22	0.30	0.21	0.29	0.37
2070	0.18	0.27	0.37	0.22	0.31	0.41	0.21	0.29	0.39	0.29	0.39	0.50
2080	0.21	0.31	0.44	0.25	0.38	0.51	0.25	0.36	0.50	0.35	0.49	0.64
2090	0.23	0.36	0.51	0.30	0.44	0.60	0.31	0.44	0.61	0.44	0.61	0.79
2100	0.25	0.41	0.58	0.34	0.50	0.69	0.36	0.53	0.72	0.53	0.74	0.98

The entire Report can be viewed [here](#). This table is on page 55.

RCP2.6 Low emissions scenario - most likely to be exceeded.
Assumes early participation and drastic policy intervention from all major emitters to reduce emissions, starting immediately. Assumes 8 billion people, declining from the year 2100. This RCP is not considered plausible.

RCP4.5 & RCP6.0 Moderate emissions scenarios - even chance of being exceeded.
Both assume substantial efforts to reduce emissions. RCP4.5 assumes 8 billion - slightly declining at 2100 & RCP6.0 assumes 9 billion and stabilising at 2100 with emissions for both stabilising soon after 2100.

RCP8.5 High emissions scenario - least likely to be exceeded.
Assumes more or less unabated emissions ('business as usual' with no effective policy adopted to stabilise or reduce global emissions by 2100. Assumes 12 billion people at 2100.

What has Shoalhaven City Council adopted?

The solid line, red boxes show what was adopted by SCC. That is, 10cm by 2030, 23cm by 2050 and 36cm by 2100.

The green, broken line boxes show what ESC adopted.

The 2030 choice is not so important as the figures vary by just a few millimetres. **For 2050**, the figures vary by a few centimetres, so similarly, the projection selection is not critical.

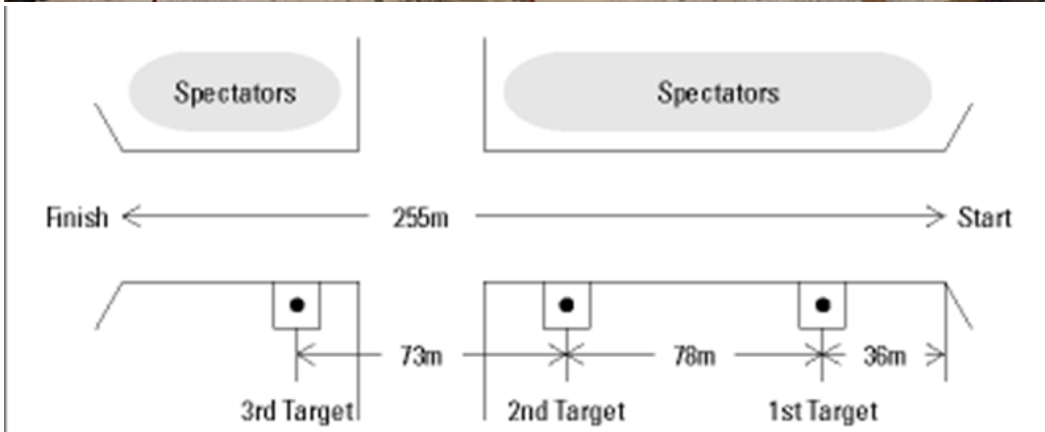
After 2050 the projection choice is more critical; especially for planning and legal implications. 2050 is just 35 years away and most buildings have a life expectancy of at least 50 years.

For 2100, SCC has chosen the low figure in RCP6.0.

Whilst SCC has adopted new sea level rise projections, the implementation framework of The Report hasn't been adopted.

Importantly, Council has resolved to review the adopted projections every seven years.

How does the ancient Japanese art of YABUSAME relate to climate change?



In Yabusame, a mounted archer rides along a course, shooting at three targets spaced along the course as they pass. Before starting the rider needs careful preparation and attention to focus on the first target. This is similar to Acknowledging, and beginning to plan for, suitable adaptation of property and facilities considered to be imminently exposed to hazards relating to sea-level rise. These areas need immediate attention, planning, funding and focus; and are of key concern.

Beyond the first target, the immediate focus of the mounted archer is not required. It appears foolish to begin shooting arrows at the second and third target when you are at the start of the course.

It's prudent to wait until you have dealt with the first target and gained a feel of conditions from that first shot, picked up momentum, gained a better appreciation of the speed of the horse and importantly, come closer to the target so that you have a better chance of being accurate.

Similarly, there is great uncertainty surrounding sea level rise projections for the medium to long term. While we don't want to overreact by firing towards these targets at the present time, we should still take precautions. We need to make sure that we have enough arrows in our quiver; we need to understand the nature of the task at hand, train ourselves to be prepared and have some feeling for the route we plan to take along the course.

In the present circumstances in New South Wales, it is foreseeable that a failure to plan and prepare adequately could be construed as a lack of "good faith", particularly considering that sea-level rise in New South Wales has been acknowledged as a concern for over 25 years. The challenge is to try and ensure that the planning strategies implemented now are not an overreaction that unnecessarily stifles the use of coastal land.

Or to show it in a less colourful way...

Coastal Hazard Planning Area	Time period	Lifespan	Response
Current hazard	0 - 15 years	Current community	Imminent actions. Needs attention now.
Medium term hazard	15 - 35 years	Current generation	Plan, monitor and respond. Take special care.
Strategic hazard planning	35 - 85 years	Impacts over multiple generations	Plan and monitor
Maximum Avoidance Hazard	85+ years	Impacts on future generations	Consider for critical & long term infrastructure