

Sea-level rise projections to 2100

Sea-level rise is the primary mechanism by which we expect UK coastal flood hazard to change in the future. The Met Office has projected how sea levels will rise up to 2100 around the UK coastline. The amount of sea-level rise varies from place to place and increases in higher emissions scenarios.

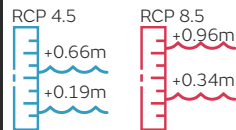
Emissions scenarios explained

To predict the severity of climate change and therefore future sea-level rise, we make assumptions about economic, social, and environmental changes that influence climate change. Each Representative Concentration Pathway (RCP) is a set of assumptions about greenhouse gas concentrations which take into account these future changes.

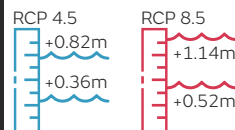
RCP 4.5 is an intermediate 'stabilisation' pathway, where greenhouse gas emissions are reduced by varying levels. RCP 8.5 is a high-emission pathway, where greenhouse gas emissions continue to grow unmitigated. Each pathway results in a different range of global mean temperature increases and therefore different projections of sea-level rise over the 21st century.

Projected ranges of sea-level rise at UK capital cities (nearest class A tide gauge location) at 2100 under RCP4.5 and RCP8.5 relative to a baseline period of 1981-2000. The lower number in the range is at the 5th percentile, and the higher number in the range is at the 95th percentile.

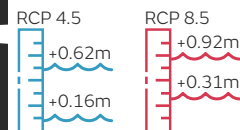
Belfast (Bangor)



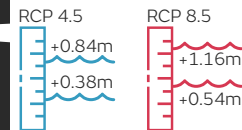
Cardiff (Newport)



Edinburgh (Leith)



London (Sheerness)



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Scan the QR code to learn more about IPCC's Sixth Assessment Report (AR6)



Scan the QR code to learn more about UKCP18 sea-level projections